



# **Southwest Area Projects Subsequent EIR Addendum – 930 Fresno Avenue**

**SCH # 2004062031**

City of Santa Rosa

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# Contents

|            |                                                          |           |
|------------|----------------------------------------------------------|-----------|
| <b>1.</b>  | <b>Introduction.....</b>                                 | <b>1</b>  |
| 1.1        | Background.....                                          | 1         |
| 1.2        | CEQA Framework for Addendum .....                        | 1         |
| 1.3        | Changes in Circumstances .....                           | 2         |
| <b>2.</b>  | <b>Project Information.....</b>                          | <b>4</b>  |
| 2.1        | Background.....                                          | 4         |
| 2.2        | Summary of the 2007 Approved Project.....                | 4         |
| 2.3        | Summary of the Proposed 2020 Modified Project .....      | 5         |
| 2.3.1..... | Residential Units.....                                   | 5         |
| 2.3.2..... | Site Access.....                                         | 5         |
| 2.3.3..... | Pedestrian and Bicycle Improvements .....                | 6         |
| 2.3.4..... | Parking/Traffic .....                                    | 6         |
| 2.3.5..... | Landscaping and Fencing .....                            | 6         |
| 2.3.6..... | Outdoor Lighting .....                                   | 6         |
| 2.3.7..... | Storm Water .....                                        | 6         |
| 2.3.8..... | Sustainable Design Features .....                        | 6         |
| 2.3.9..... | Climate Action Plan Compliance .....                     | 7         |
| 2.3.10.... | Construction Information .....                           | 8         |
| 2.3.11.... | Operations .....                                         | 9         |
| 2.3.12.... | Updates and Revisions to Mitigation Measures .....       | 9         |
| 2.3.13.... | Other Public Agencies Whose Approval is Required .....   | 10        |
| <b>3.</b>  | <b>Analysis of Potential Environmental Effects .....</b> | <b>10</b> |
| 3.1        | Land Use .....                                           | 10        |
| 3.1.1..... | Mitigation Measures .....                                | 11        |
| 3.2        | Population, Employment, and Housing.....                 | 11        |
| 3.2.1..... | Mitigation measures .....                                | 11        |
| 3.3        | Visual Quality and Community Character .....             | 11        |
| 3.3.1..... | Mitigation Measures .....                                | 12        |
| 3.4        | Soils, Geology and Seismicity .....                      | 12        |
| 3.4.1..... | Mitigation Measures .....                                | 13        |
| 3.5        | Hydrology and Water Quality .....                        | 15        |
| 3.5.1..... | Mitigation Measures .....                                | 16        |
| 3.6        | Noise.....                                               | 16        |
| 3.6.1..... | Mitigation Measures .....                                | 17        |
| 3.7        | Air Quality .....                                        | 18        |
| 3.7.1..... | Mitigation Measures .....                                | 19        |
| 3.8        | Traffic and Circulation .....                            | 19        |
| 3.8.1..... | Mitigation Measures .....                                | 21        |
| 3.9        | Utilities and Public Services.....                       | 21        |
| 3.9.1..... | Mitigation Measures .....                                | 22        |
| 3.10       | Hazardous Materials.....                                 | 23        |
| 3.10.1.... | Mitigation Measures .....                                | 24        |
| 3.11       | Historic and Cultural Resources .....                    | 24        |
| 3.11.1.... | Mitigation Measures .....                                | 25        |
| 3.12       | Vegetation, Wildlife, and Habitat.....                   | 27        |

|                   |                                                   |           |
|-------------------|---------------------------------------------------|-----------|
| 3.12.1....        | Mitigation measures .....                         | 30        |
| 3.13              | Required CEQA Considerations .....                | 32        |
| 3.13.1....        | Cumulative Impacts .....                          | 32        |
| 3.13.2....        | Growth-Inducing Impacts.....                      | 32        |
| 3.13.3....        | Significant and Unavoidable Adverse Impacts ..... | 33        |
| <b>4.</b>         | <b>References .....</b>                           | <b>33</b> |
| <b>5.</b>         | <b>List of Preparers .....</b>                    | <b>33</b> |
| 5.1               | City of Santa Rosa.....                           | 33        |
| 5.2               | GHD .....                                         | 34        |
| 5.3               | Monk & Associates .....                           | 34        |
| <b>Appendix A</b> | <b>Conditional Use Permit Plan Set .....</b>      | <b>36</b> |
| <b>Appendix B</b> | <b>Updated Focused Traffic Study.....</b>         | <b>37</b> |
| <b>Appendix C</b> | <b>Biological Resource Analysis .....</b>         | <b>38</b> |

## Table index

|         |                                                          |   |
|---------|----------------------------------------------------------|---|
| Table 1 | Proposed Residential Units – 2020 Modified Project ..... | 5 |
|---------|----------------------------------------------------------|---|

## Appendices

|            |                                 |
|------------|---------------------------------|
| Appendix A | Conditional Use Permit Plan Set |
| Appendix B | Updated Focused Traffic Study   |
| Appendix C | Biological Resource Analysis    |

# 1. Introduction

## 1.1 Background

The City of Santa Rosa has received a planning application for proposed modifications to previously approved entitlements at 930 Fresno Avenue (Project site). The Project site is located within the Southwest Santa Rosa Area designated by the Santa Rosa 2035 General Plan (General Plan), within the geographical areas of both the Southwest Santa Rosa Area Plan (Area Plan) and the Southwest Santa Rosa Redevelopment Plan (Redevelopment Plan).

The City of Santa Rosa is the California Environmental Quality Act (CEQA) lead agency for the Project. The proposed Project at 930 Fresno Avenue was one of 29 individual projects considered in the *Southwest Area Projects Subsequent EIR*, which was certified by the City of Santa Rosa in 2007. As directed by the California Public Resources Code (PRC) Section 21166 and CEQA Guidelines Section 15162, when an Environmental Impact Report (EIR) has been previously certified for a project, no subsequent EIR shall be prepared unless certain circumstances occur (see Section 1.2 below).

This document is an Addendum to the previously certified *Southwest Area Projects Subsequent EIR*. The history of the CEQA environmental reviews and documentation for the plan areas and Project site is as follows:

- Environmental review of the Southwest Area Plan and Redevelopment Plan was completed and has occurred in multiple documents, including the *Santa Rosa 2020 General Plan Final Environmental Impact Report* (2002 General Plan EIR), certified in 2002; the *Santa Rosa 2035 General Plan Final Environmental Impact Report* (2009 General Plan EIR), certified in 2009; the *Southwest Area Plan Final Environmental Impact Report*, which was a Master EIR certified in 1994 and reviewed for currency in 2000; and the *Southwest Santa Rosa Redevelopment Final EIR*, certified in 2000.
- In 2007, the *Southwest Area Projects Subsequent EIR* was certified by the City of Santa Rosa, which evaluated 29 individual development projects in southwest Santa Rosa. The individual projects were collectively called the Southwest Area Projects. The projects were considered together because they were similar in nature, in their potential environmental effects, and in their location. One of the 29 individual projects was a proposed development at 930 Fresno Avenue, referred to as Project 22 – Cherry Ranch.
- The proposed land uses in the *Southwest Area Projects Subsequent EIR* were consistent with the land uses designated in the General Plan, Area Plan, and Redevelopment Plan. Therefore, the *Southwest Area Projects Subsequent EIR* tiered from the General Plan EIR, the Master EIR, and the Redevelopment EIR.
- The *Southwest Area Projects Subsequent EIR* focused on new potentially significant impacts not previously addressed, including additional analysis related to traffic and circulation, utilities and public services, hazardous materials, cultural resources, historic resources, vegetation, wildlife, and habitat.

In 2007, the Project site was mass graded with CEQA clearance under the *Southwest Area Projects Subsequent EIR* and applicable regulatory permits having been obtained. Following the mass grading, the Project went on hold and no residential units or other improvements were constructed.

In 2020, the applicant proposed modifications to the original Project at 930 Fresno Avenue. The modifications would include an increase in the number of residential dwelling units from the 39 single-family detached units evaluated in the *Southwest Area Projects Subsequent EIR* to a 67-unit residential development consisting of 62 single-family attached (duet) units and five (5) single-family detached homes. The 2020 proposed Project is referred to herein as the 2020 Modified Project and is the subject of this EIR Addendum. The details of the 2020 Modified Project are discussed below in Section 2.0, Project Information.

## 1.2 CEQA Framework for Addendum

The City of Santa Rosa is the CEQA lead agency for the 2020 Modified Project. As directed by the California Public Resources Code (PRC) Section 21166 and CEQA Guidelines Section 15162, when an EIR has been prepared for a project, no subsequent EIR shall be prepared, unless one or more of the following circumstances occur:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revision of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
  - a. The project will have one or more significant effects not discussed in the previous EIR;
  - b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
  - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
  - d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The changes in environmental impacts due to modifications in the Project or changed conditions have been evaluated and measured against the standards set forth in paragraphs 1, 2, and 3 above to determine whether an Addendum is appropriate – or whether a subsequent EIR or a supplemental EIR is needed. The environmental analysis in Chapter 3 provides the detailed examination of each of these issues.

The 2020 Modified Project has been subjected to a detailed analytical process consistent with the methodology and thresholds of significance applied in the *Southwest Area Projects Subsequent EIR*. Per CEQA Guidelines Section 15164(a), a CEQA lead agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in CEQA Guidelines Section 15162 calling for the preparation of a subsequent EIR have occurred. Section 15164(b) states that an addendum to an EIR is appropriate when minor technical changes or additions are made but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR or negative declaration have occurred.

As discussed herein, none of the elements requiring the preparation of a subsequent EIR have been identified, and the City of Santa Rosa has determined that it is not necessary to prepare a subsequent EIR. Therefore, this EIR Addendum has been determined to be the appropriate CEQA document.

This Addendum reflects the analysis of the City as the CEQA lead agency. Further, it demonstrates that the environmental analysis, impacts, and mitigation requirements identified in the *Southwest Area Projects Subsequent EIR* remain substantively unchanged by the changes described herein, and support the finding that the proposed Project modifications reflected in the 2020 Modified Project do not raise any new issues that result in any new significant impacts which cannot be mitigated to a level of less than significant, and do not exceed the level of impacts identified in the *Southwest Area Projects Subsequent EIR*.

Per CEQA Guidelines Section 15164(c), an addendum need not be circulated for public review. Per CEQA Guidelines Section 15164(d), the decision-making body shall consider an addendum prior to making a decision on the Project. Accordingly, this EIR Addendum will be considered by the decision-making bodies prior to making a decision on the 2020 Modified Project. This Addendum, along with the previous environmental analyses, is on file with and may be obtained from the City of Santa Rosa, Planning and Economic Development Department, Planning Division, 100 Santa Rosa Avenue, Room 3, Santa Rosa, California, 95404.

## 1.3 Changes in Circumstances

Since certification of the *Southwest Area Projects Subsequent EIR*, changes have occurred in respect to the circumstances under which the 2020 Modified Project would be undertaken. Changes to the site setting include the mass grading that was conducted in 2007. At the time of certification of the *Southwest Area Projects Subsequent EIR*, 0.4 acre of jurisdictional seasonal wetlands, including vernal pools, were verified on site. The entire Project site was subsequently graded and the wetlands filled. An updated biological review for the Project site (Monk & Associates 2019) identified a few subsided low topographic areas that have developed since the site

was graded in 2007. These low areas are regarded as “construction-related” features that are not considered jurisdictional waters, as verified by the U.S. Army Corps during verification site visits in 2018 and 2019 (Monk & Associates 2019). However, a jurisdictional drainage is located along the frontage of Fresno Avenue that was not filled during the 2007 mass grading. In 2018, the applicant applied for a United States Army Corps permit for filling of the linear wetland along Fresno Avenue, and the Corps issued a Nationwide Permit on July 18, 2019.

Another change to the site setting was the removal of the Santa Rosa Livestock Auction Yard building in 2017. The Santa Rosa Livestock Auction Yard building was previously determined to be eligible for the California Register of Historical Resources under Criterion 1. Signs from the Auction Yard were relocated to the Sonoma County Library at the time of demolition for historical preservation, in accordance with Mitigation Measure 3.5-3 of the *Southwest Area Projects Subsequent EIR*. Presently, only the foundation of the former Auction Yard remains present at the site, as well as an Italian cypress tree. A cultural resources study conducted for the Project (Origer & Associates 2019) has determined that the remaining foundation and Italian cypress tree do not convey historical association with Agricultural Development and the integrity of feeling, design, materials, and workmanship are no longer present. Therefore, the remaining elements of the Auction Yard would no longer be found eligible for the State or National Register of Historic Places.

Several changes have also occurred to the regulatory setting since the certification of the *Southwest Area Projects Subsequent EIR*. These include:

- A Construction General Permit (Order 2009-0009-DWQ) was adopted in 2009 requiring Storm Water Pollution Prevent Plans for construction activities involving one or more acres of land disturbance. This Order remains in effect but has been amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ. The Project would be required to comply with this Order.
- On August 31, 2011, a Final Rule on the Revised Designation of Critical Habitat for the Sonoma County Distinct Population of the California tiger salamander was published (76 FR 54346 54372) (USFWS 2011). The Project site is located within the mapped critical habitat area.
- On March 4, 2010, California tiger salamander was state-listed as a threatened species under the California Endangered Species Act. The State listing requires incidental take authority from the CDFW for projects that may impact the species.
- On December 2016, the USFWS adopted a Recovery Plan for the Santa Rosa Plain (Recovery Plan) addressing recovery efforts necessary to protect and otherwise eventually recover the federally-listed Sonoma County DPS of California tiger salamander and three vernal pool plants: *Blennosperma bakeri* (Sonoma sunshine); *Lasthenia burkei* (Burke’s goldfields); and *Limnanthes vinculans* (Sebastopol meadowfoam). The USFWS’ Recovery Plan for the Santa Rosa Plain designates the Project site within the Llano Crescent-Stony Point “Core Area” for California tiger salamander and within the Southern Core Area for the three vernal pool plants.
- In 2020, a Programmatic Biological Opinion for the Santa Rosa Plain was issued to incorporate critical habitat for Sonoma County DPS of California tiger salamander.
- In 2017, the City of Santa Rosa adopted a revised Storm Water Low Impact Development Technical Design Manual to facilitate design of permanent storm water features into development projects. The Project would be required to comply with the Technical Design Manual.
- On April 21, 2020, the U. S. Army Corps of Engineers (USACE) issued the Navigable Waters Protection Rule published in the Federal Register. Part 328 and Part 120 defines jurisdictional waters as being the territorial seas, tributaries, lands and ponds and impoundments of jurisdictional waters and adjacent wetlands. Non-jurisdictional waters include ditches that are not waters as identified under the jurisdictional waters definition and are not wetlands.

Finally, it is noted that the CEQA Guidelines Appendix G Environmental Checklist Form has been modified by the Governor’s Office of Planning and Research to include revisions to several impact questions after the prior EIR was certified, including the addition of several new checklist sections such as energy, greenhouse gas emissions, tribal cultural resources, and wildfire. This EIR Addendum addresses changes in the CEQA guidelines throughout Section 3, Analysis of Environmental Effects. In certain cases, updated cultural resource studies, biological resource assessments, and traffic impact studies were prepared. Relative to wildfire, the Project site is not located in or contiguous to a State Responsibility Area (SRA) or lands classified as very high fire severity zones (VHFHSZ). Additionally, the Project site is not located with the City’s Wildland-Urban Interface Area Zone. As such, the CEQA Guidelines Appendix G Checklist section for wildfire is not applicable to the Project.

As proposed, the Project would be designed and operated in a manner that is consistent with the City's adopted Climate Action Plan, therefore, potential impacts due to GHG emissions would be less than significant. In addition, the Project would not result in inefficient, wasteful, or unnecessary consumption of fuels or other energy resources and would be required to comply with existing laws and regulations governing energy use.

## **2. Project Information**

### **2.1 Background**

The Project site is a 6.87-acre parcel (APN 035-101-004) located at 930 Fresno Avenue, within the southwest area of the City of Santa Rosa, Sonoma County, California, south of Sebastopol Road. The parcel has a General Plan land use designation of Medium-Low Residential, and a zoning designation of R-1-6. The site is surrounded by single-family residential land uses to the west, rural residential and an animal hospital to the north, and the former Santa Rosa Naval Auxiliary Airfield to the east and south. The site is accessed from Fresno Avenue via Sebastopol Road and South Wright Road.

The Project site is located within the Santa Rosa Plain, a northwest/southeast trending valley of the southern Coast Ranges. The Project site is relatively flat with slight undulating topography with a slope of less than one percent. The Project site was graded in 2007 per authorized permits from the City of Santa Rosa, the United States Army Corps of Engineers, the North Coast Regional Water Quality Control Board, and the United States Fish and Wildlife Service.

### **2.2 Summary of the 2007 Approved Project**

The *Southwest Area Projects Subsequent EIR* evaluated 29 individual residential projects that included development of 1,399 housing units as well as retail, office, and light industrial uses on 168.4 acres within the Southwest Area Plan. One of the 29 individual projects was a proposed development at the Project site, referred to as Project 22 – Cherry Ranch. The formal application for the Project at 930 Fresno Avenue was described in the *Southwest Area Projects Subsequent EIR* as consisting of 39 single-family detached units and a rezoning of the Project site to R-1-PD. No additional descriptive language was provided in relation to the Project in the Subsequent EIR.

Prior to the *Southwest Area Projects Subsequent EIR*, the former applicant applied to the U.S. Army Corps of Engineers (Corps) for authorization to fill 0.40-acre of seasonal wetlands on the Project site to construct the proposed Project. On May 6, 2002, the Corps issued a permit and confirmed that the Project qualified for authorization under a Nationwide Permit. The applicant re-applied for a Corps permit in 2007, and the Corps re-issued a Nationwide Permit on July 13, 2007. The USFWS issued a Biological Opinion for the Project on February 14, 2006. The North Coast Regional Water Quality Control Board issued a 401 Water Quality Certification for the Project on July 5, 2007.

In 2007, the Project site was mass graded with CEQA clearance and applicable regulatory permits having been obtained. In compliance with the conditions in a permit issued by the Corps, the applicant submitted a Certificate of Compliance to the Corps on December 17, 2007. The wetlands that were previously mapped on the Project site had been graded and otherwise "filled" during the mass grading. Following the mass grading, the Project went on hold and no residential units or other improvements were constructed. However, the Project site has been subjected to routine maintenance and disturbance on an annual basis after it was graded in 2007.

In 2018, the applicant applied for a Corps permit for a linear wetland along the frontage of Fresno Avenue, and the Corps issued a Nationwide Permit on July 18, 2019. As the principal federal lead agency for this Project, the Corps requested technical assistance on March 29, 2019 from the United States Fish and Wildlife Service (USFWS) to address Project related impacts to listed species. By email on June 12, 2019, the USFWS stated reinitiating the consultation pursuant to Section 7(a) of the Endangered Species Act was not necessary, and the previously issued BO (1-1-06-F-0054), with an incidental take statement for California tiger salamander (*Ambystoma californiense*) was still valid. The Corps permit includes a special condition requiring the Project applicant to implement the non-discretionary Terms and Conditions for incidental take of federally-listed species as

stipulated in the previously issued BO. The applicant also has applied for a 401 Water Quality Certification for the linear wetland feature along Fresno Avenue.

## 2.3 Summary of the Proposed 2020 Modified Project

The 2020 Modified Project proposes an increase in the number of residential units at the Project site from the 39 single-family detached units evaluated in the *Southwest Area Projects Subsequent EIR* to a 67-unit residential development. The 2020 Modified Project also would include widening Fresno Avenue along the property frontage, consistent with the City's future plans for the roadway, including creation of a two-way center left turn lane, travel lane, bike lane, and sidewalk. A copy of the Conditional Use Permit Plan Set for the 2020 Modified Project is included as Appendix A.

### 2.3.1 Residential Units

The 2020 Modified Project would include 67 residences, consisting of 62 attached duet units and 5 detached single-family homes (see Table 1, Proposed Residential Units). Sixty (60) of the proposed residential units would include 3 bedrooms, and seven (7) of the units would include 4 bedrooms, for a total of 208 bedrooms. The Project plans to leverage modular technology to fabricate the basic housing components to expedite the construction process.

The proposed building heights are less than the maximum 35 feet height limit associated with the R-1-6 zoning designation for the property. The proposed "Type-A" units would be one-story duet units ranging from 16 feet 11 inches in height to 18 feet 6 inches in height situated around the perimeter of the development. The "Type-B" and "Type-C" units would be two-story units ranging from 26 feet 3 inches in height to 27 feet 2 inches in height situated primarily in the center and northern portions of the development. The "Type D" units would be two-story units ranging from 24 feet to 26 feet 6 inches in height situated near the center of the development.

**Table 1** *Proposed Residential Units – 2020 Modified Project*

| Land Use                                        | Number of Units | Number of Stories | Square Feet Per Unit |
|-------------------------------------------------|-----------------|-------------------|----------------------|
| Type A Duet Units                               | 22              | 1                 | 1,411+GARAGE         |
| Type B Duet Units                               | 22              | 2                 | 1,740+GARAGE         |
| Type B Single-Family Detached Residential Units | 3               | 2                 | 1,740+GARAGE         |
| Type C Duet Units                               | 16              | 2                 | 1,595+GARAGE         |
| Type C Single-Family Detached Residential Units | 2               | 2                 | 1,595+GARAGE         |
| Type D1 Duet Units                              | 1               | 2                 | 1,595+GARAGE         |
| Type D2 Duet Units                              | 1               | 2                 | 1,749+GARAGE         |

### 2.3.2 Site Access

Access to the Project site is proposed via three new street connections on the east side of Fresno Avenue. Terrabrook Drive would loop around the Project site and intersect Fresno Avenue in two locations. The second Project street, called "Street A", would run parallel to Fresno Avenue before bending and intersecting with Fresno Avenue opposite New Zealand Drive. The Project vehicular circulation is designed in a continuous loop with drives of 22 feet in width combined with 8-foot-wide parallel parking on one side. Fire truck access to the sub-division would occur at both ends of the main circulation drive. The inside radiuses are designed to accommodate the trucks.

### 2.3.3 Pedestrian and Bicycle Improvements

The 2020 Modified Project would include widening Fresno Avenue along the property frontage, consistent with the City's future plans for the roadway, including creation of a center median, travel lane, bike lane, and separated sidewalk. Continuous sidewalks would be constructed along the Project site's frontage with Fresno Avenue and along both sides of the new streets to be constructed within the Project site. The Project site is situated close to several amenities including shopping, cafes, small businesses, Corporate Center Parkway, and alternative transportation options (bus stop and bike path in close proximity).

### 2.3.4 Parking/Traffic

The 2020 Modified Project proposes a total of 194 parking spaces, including 89 garage spaces, 67 driveway spaces, and 38 on-street spaces. Based on the application of standard City of Santa Rosa parking rates per Section 20-36.040 of the Santa Rosa Zoning Code, the Modified Project will exceed the City's parking requirements (175 total parking spaces, of which 67 need to be covered) for the Project site.

### 2.3.5 Landscaping and Fencing

The landscape plan for the 2020 Modified Project shows the proposed planting of 173 ornamental trees, along with 5-gallon shrubs and vines, 1-gallon groundcover plants, and hydroseed mix throughout the site. The landscape plan also proposes the installation of good neighbor fencing and privacy fencing along the individual residential units. Landscape materials and locations would be compliant with the City's Water Efficient Landscape Ordinance and Tree Ordinance.

### 2.3.6 Outdoor Lighting

Outdoor lighting for the 2020 Modified Project would include pole mounted decorative and interior street lighting fixtures. The outdoor lighting would comply with requirements contained in City Municipal Code Section 20.30.080, which includes maximum heights light standards and requirements that lighting fixtures be shielded or recessed to reduce light spillage onto adjoining properties.

### 2.3.7 Storm Water

The 2020 Modified Project would create approximately 4.8 acres of new impervious surfaces and would be subject to the City of Santa Rosa's Low Impact Development storm water requirements. The Project design proposes collection and conveyance of storm water through a series of bio-retention beds to mitigate pollutants and provide volume capture for the 85th percentile 24-hour storm, consistent with the 2017 Storm Water Low Impact Development Technical Design Manual. Volume capture would be accomplished by incorporating an area for storm water storage beneath the bio-retention facilities. The bio-retention beds with gravel storage areas are intended to reduce runoff from the Project site and provide ground water recharge. Structural soil would be used for the storage areas and to promote landscaping within the bio-retention beds. The design is intended to meet the hydromodification control requirement by achieving full volume capture. The Project also proposes the use of removable trash basket inserts at new catch basins within the public right-of-way of Fresno Avenue to prevent trash from entering the storm drain system. The applicant would be required to construct, inspect, and maintain the storm water LID facilities in accordance with a Final Standard Urban Stormwater Mitigation Plan (SUSMP) for the property.

The proposed storm water system would connect into the existing storm drain system with Fresno Avenue, which includes storm drain piping that convey water towards Sebastopol Road. A Preliminary Drainage Study that was completed for the 2020 Modified Project includes hydrology and hydraulic calculations that show the existing storm drain within Fresno Avenue has the capacity to accept runoff from the proposed Project (Civil Design Consultants, Inc. 2020).

### 2.3.8 Sustainable Design Features

The sustainable design features to be integrated into the building/site development are summarized below:

- Energy efficient mechanical HVAC and water heaters

- LED lighting
- Energy Star appliances
- Low flow water plumbing fixtures
- Water efficient landscaping in accordance with CALGreen
- Waste management program during construction
- CALGreen compliant insulation and fenestrations
- Prepared for photovoltaics – renewable energy
- Modular construction being considered for efficient use of raw materials
- Adhesives, sealants, and caulks to be compliant with VOC limits in CALGreen
- Paints, stains, and other coatings to be compliant with VOC limits in CALGreen
- Flooring systems and adhesives to be compliant with VOC limits in CALGreen

### 2.3.9 Climate Action Plan Compliance

The 2020 Modified Project proposes to incorporate the following policy measures contained in the Santa Rosa Climate Action Plan (CAP).

Policy 1.1.1 - Comply with CAL Green Tier 1 Standards: The Project is designed to comply with State Energy requirements for Title 24, and CAL Green Tier 1 Standards in effect at time of permit application submission.

Policy 1.1.3 – After 2020, all new development will utilize zero net electricity: Policy 1.1.3 was adopted to coincide with California Energy Codes. Since the CAP adoption, the California Energy Commission (CEC) has determined that it is not possible to achieve “net zero” on a wholesale basis and “net zero” has been removed from the California Energy Codes. Appendix E of Santa Rosa’s Climate Action Plan states that, “To be in compliance with the CAP, all measures denoted with an asterisk are required in all new development projects unless otherwise specified. If a project cannot meet one or more of the mandatory requirements, substitutions may be made from other measures listed at the discretion of the Community Development Director.” CAP Goal 1 - 1.1 requires projects to comply with Tier 1 CALGreen requirements, as amended, for new non-residential and residential development. Tier 1 CALGreen does not include “net zero” Greenhouse Gas (GHG) assumptions for electricity use. In addition, current California Green Building Code Standards apply to all projects and has been determined by the Director to be an acceptable substitution for CAP Policy 1.1.3. Therefore, strict compliance with CAP Policy 1.1.3 is not achievable and not required. Policy 1.1.1 of the CAP requires new development to comply with the current provisions of CALGreen, Part 11 of the California Green Building Standards Code. Site development, building design, and landscaping proposed by the Project would comply with, CALGreen Tier 1 standards. In addition, the Project would comply with Title 24 energy efficiency requirements, as outlined in Policy 1.1.1. Therefore, the Project would comply with Policy 1.1.1 of the CAP.

Policy 1.3.1 – Real time Energy Monitors: The Project will include the latest generation of monitors to track energy use.

Policy 1.4.2- Comply with the City's Tree Preservation Ordinance: Implementation of applicable mitigation measures from the *Southwest Area Projects Subsequent EIR* would require the Project to comply with the City's tree preservation ordinance (Santa Rosa Code Section 17- 24.020).

Policy 1.4.3 – Provide public and private trees in compliance with the Zoning Code: New trees and plantings associated with development would be installed in compliance with the Santa Rosa Zoning Code and Santa Rosa Design Review Landscape Standards for planting private and public trees, and consistent with the City's Water Efficient Landscape Ordinance.

Policy 1.5 – Install new sidewalks and paving with high solar reflectivity materials: All proposed new sidewalks, driveways, and parking areas would be paved with hard materials that contain either color or other enhancements to provide enhanced reflectivity.

Policies 2.1.3 – Pre-plumb for solar thermal or PV systems: The Project intends to pre-plumb and pre-wire for solar.

Policy 3.2.2 - Improve non-vehicular network to promote walking, biking: The Project would widen Fresno Avenue to accommodate a bike lane and sidewalk along the frontage to promote walking and biking.

Policy 3.6.1. – Install calming features to improve ped/bike experience: The Project includes widening of Fresno Avenue consistent with the City's future plans for the roadway, including creation of a bike lane and separated sidewalk along the Project site's frontage to improve pedestrian and bicycle experience.

Policy 6.1.3 – Increase diversion of construction waste: The developer would condition contractor agreements to divert all possible construction waste and prepare a Construction Waste Management Plan for recycling and disposal of construction wastes.

Policy 7.1.1 – Reduce potable water for outdoor landscaping: Landscape irrigation would be required to be compliant with the City's Water Efficient Landscape Ordinance.

Policy 7.1.3 – Install real time water meters: A dedicated or common water meter is proposed to supply water to the irrigation system. Irrigation system design and best available technology for metering will be shown on final landscaping and irrigation plans.

Policy 7.3.2 – Install dual plumbing in areas of future recycled water: Dual plumbing is proposed to meet on-site meter separation requirements to allow for the future use of recycled water.

Policy 9.1.2 - Provide outdoor electrical outlets for charging lawn equipment: Outdoor outlets would be provided.

Policy 9.1.3 – Install low water use landscapes: Low water use plants would be used to landscape the site. Plant materials and locations are required to be compliant with the City's Water Efficient Landscape Ordinance.

Policy 9.2.1 – Minimize construction equipment idling time to 5 minutes or less: The developer would condition contractor agreements to limit construction equipment idling time to 5 minutes or less, consistent with the City's Standard Measures for Air Quality.

Policy 9.2.2 – Maintain construction equipment per manufacturer's specifications: The developer would condition contractor agreements to provide for that all equipment used at the site to be maintained in accordance with the manufacturer's instructions.

Policy 9.2.3 – Limit Green House Gas (GHG) construction equipment by using electrified equipment or alternate fuel: The developer would include provisions in contractor agreements encouraging the use of electrified equipment or equipment using alternative fuels, as appropriate, and selecting one of the three measures listed in the CAP.

## 2.3.10 Construction Information

A specific construction start date has not been established for the 2020 Modified Project. For the purposes of this EIR Addendum, it is assumed that construction would begin in 2022 and require approximately 6 to 8 months to complete (depending on weather). External construction work would be limited to the hours of 7:00 AM to 7:00 PM, Monday thru Friday, and 9:00 AM to 6:00 PM on Saturdays, or as allowed by the City's standard Conditions of Approval.

Prior to construction, the applicant's contractor would mobilize construction equipment and materials to the Project site and would likely place a job site trailer and portable sanitary facilities on the site. The primary vehicle and haul truck route to the Project site is anticipated to be Sebastopol Road to Fresno Avenue, with an entrance to the construction site from Fresno Avenue. Construction staging areas, including construction worker parking, would be established on the Project site.

Construction is anticipated to begin with site preparation, including clearing and re-grading of the site to provide a relatively level surface for the movement of construction equipment. Site clearing and grubbing would remove select trees, grass, and other vegetation. Approximately 14 trees (4 inches or greater diameter at breast height, DBH) would be removed, including 13 valley oaks (*Quercus lobata*) and one large Italian cypress (*Cupressus*

*sempervirens*) (18-inch DBH). Implementation of applicable mitigation measures from the *Southwest Area Projects Subsequent EIR* would require the Project to comply with the City's tree preservation ordinance (Santa Rosa Code Section 17- 24.020).

Following site preparation, the site would be rough graded to elevations shown on improvement plans (see Appendix A). Rough grading activities would include building pad preparation, grading of roadways, and installation of erosion and sediment control features. Importation of clean fill material would also occur during this phase. Utility connections would be installed using open trench construction methods. Such methods would include removal of surface material; excavation and shoring of a trench; installation of pipe bedding, pipelines, and conduits; backfilling of the trench; and resurfacing. Vertical construction activities would include construction of the residential units and other site improvements. The final phase of construction is anticipated to include installation of frontage improvements, landscape plantings, trees, drainages, irrigation systems, and finished hardscapes.

A variety of construction equipment would be used to construct the Project, including excavators, rubber-tired bulldozers, backhoes, graders, cranes, forklifts, aerial lifts, cement mixers, pavers, rollers, chainsaws, industrial saws, generators, air compressors, welders, and other general construction equipment.

Construction of utility connections, pedestrian and bicycle improvements, and roadway reconfigurations would require work within the City's right-of-way in Fresno Avenue. In accordance with City of Santa Rosa requirements, the applicant's contractor would be required to obtain an Encroachment Permit and develop and implement controls to minimize effects of the work on traffic and pedestrians, including signs and flaggers conforming with the current California Manual of Uniform Traffic Control Devices.

### 2.3.11 Operations

Project operation would result in energy consumption in the form of electricity for heating and cooling of buildings, generation of hot water, lighting of indoor and outdoor spaces, and providing power to various forms of equipment. The proposed residential development would utilize water to be purchased from the City of Santa Rosa to meet potable water demands. The Project would also result in energy use associated with disposal of solid waste and for pumping, distribution, and treatment of Project-related water and wastewater demands, as well as energy use associated with vehicle trips and an emergency generator. The site development would be subject to the State Building Energy Efficiency Standards contained in Title 24, Part 6 of the California Code of Regulations. Title 24, Part 6 applies to all new construction of both residential and nonresidential buildings, and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. Additionally, in accordance with the City of Santa Rosa Climate Action Plan (CAP) New Development Checklist, the Project would be conditioned to comply with the CALGreen Tier 1 Standards, which requires a 15 percent improvement over the minimum Title 24, Part 6 requirements.

Based on trip generation rates for Residential Planned Unit Development (LU #270), as published by the Institute of Transportation Engineers, the 2020 Modified Project is expected to generate an average of 494 new daily vehicle trips, including 38 a.m. peak hour trips and 46 p.m. peak hour trips.

### 2.3.12 Updates and Revisions to Mitigation Measures

Several mitigation measures from the *Southwest Area Projects Subsequent EIR* that apply to the 2020 Modified Project are proposed to be revised to conform to existing regulations, increase feasibility, and reduce impacts. This includes:

- 3.2.2-2 - Protect Water Quality During Grading
- 3.2.4-1 - Implement Air Quality Control Measures during Construction
- 3.3-2 - Collect Sanitary Sewer Connection Fee
- 3.3-3 - Implement Payment of Mitigation Fees for Schools
- 3.3-6 - Implement Community Services District Program
- 3.4-1a - Implement OSHA Standards for Lead Paint Removal
- 3.4-1b - Properly Abate Asbestos-Containing Materials
- 3.5-1a - Monitor Ground-Disturbing Activities during Construction
- 3.5-1b - Incorporate Monitoring Requirements into Grading Plans

- 3.6-1a - Replace Trees in Accordance with City Code Chapter 17-24 Trees
- 3.6-6a - Provide Protection of Nesting Raptors and Migratory Birds
- 3.6-11a - Protect Water Quality during Construction

For ease of reference, edits to these mitigation measures are shown in Section 3 in hard strike out and underline mode for deletion and addition, respectively.

### 2.3.13 Other Public Agencies Whose Approval is Required

The following discretionary actions and other approvals may be required for the 2020 Modified Project:

- Minor Design Review Permit (City of Santa Rosa)
- Minor Conditional Use Permit (City of Santa Rosa)
- Major Subdivision Tentative Map (City of Santa Rosa)
- Encroachment Permit (City of Santa Rosa)
- Section 401 Water Quality Certification (North Coast Regional Water Quality Control Board)
- Nationwide Permit (NWP) 29 for Residential Development (US Army Corps of Engineers)

## 3. Analysis of Potential Environmental Effects

The following discussion analyzes the likelihood of the 2020 Modified Project, as described in Section 2, to result in new or substantially more significant effects, or the need for new mitigation measures as compared to those studied in the *Southwest Area Projects Subsequent EIR*. This Addendum discusses the topic areas in the sequence as they are addressed in the *Southwest Area Projects Subsequent EIR*. This section concludes that the 2020 Modified Project, together with changes in circumstances, are not likely to cause a substantial change in impacts and would not result in new significant impacts relative to the previously certified *Southwest Area Projects Subsequent EIR*, and mitigation measures are available to reduce these impacts to levels of less-than-significant. Mitigation Measures identified in the *Southwest Area Projects Subsequent EIR* that remain applicable to the 2020 Modified Project are referenced in this Addendum. As noted in Section 2.3.12, some mitigation measures have been modified to reflect current regulations.

### 3.1 Land Use

The *Southwest Area Plan Master EIR* evaluated the land use compatibility of development proposed under the Southwest Area Plan and assessed the effects of development on agriculture and grassland habitat. The *Southwest Area Projects Subsequent EIR* noted that the City of Santa Rosa adopted a Statement of Overriding Considerations as part of the *Southwest Area Plan Master EIR* for irreversible and irretrievable loss of Farmland of Local Importance on June 21, 1994, making the appropriate findings as required by CEQA. In determining land use compatibility, the *Southwest Area Plan Master EIR* determined that specific planned projects would either be consistent with the Area Plan or would be reviewed for consistency through the City permitting process.

There are no components of the 2020 Modified Project that would reduce mobility, access, or otherwise divide a community. The Project site does not include any designated Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or land covered by a Williamson Act contract. In addition, the Project site is not zoned for agricultural, forest land, or timberland, nor are there any agricultural or forest lands within the site.

The 2020 Modified Project is within Southwest Area of the City of Santa Rosa within the City limits, urban growth boundary, and sphere of influence boundary. The Project site is currently designated as Medium-Low Residential by the City of Santa Rosa General Plan 2035, allowing a density with 8-13 units per acre. The 2020 Modified Project proposes a density of approximately 9.75 units/acre, which is consistent with the General Plan designation.

The Project site is currently zoned Medium-Low Residential (R-1-6) by the City of Santa Rosa. The 2020 Modified Project provides a variety of one and two-story unit types. The proposed building heights are all less than the maximum 35 feet height limit associated with the R-1-6 zoning code. The design of the 2020 Modified Project

maintains a standard minimum setback of 10 feet to face of building, with front porches at least 6 feet in depth. In some cases, front porches reduce the minimum 10-foot setback to an allowable 4 feet pursuant to Zoning Code Section 20-42.140(F)(4)(a). While 20-42.140 Part F.4.b excludes these units from side yard setback requirements, the Project maintains a minimum 5-foot side yard setback on side yards that are not located on a common wall between units. Many of the perimeter units provide a minimum rear setback of 15 feet to neighboring parcels. Due to the nature of the site and the desire to maximize affordability, in accordance with 20-42.140 Part F.4.c, the applicant has requested that the City grant an allowable 10-foot minimum rear setback for some units as designed for Part F.4 and F.5. All units in the Project provide the minimum 400 SF of useable private open space. The 2020 Modified Project is consistent with the General Plan land use and zoning designations.

The 2020 Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects for land use than previously addressed in the *Southwest Area Projects Subsequent EIR*.

### 3.1.1 Mitigation Measures

None required.

## 3.2 Population, Employment, and Housing

The *Southwest Area Plan Master EIR* addressed social and economic effects of the development of the Southwest Santa Rosa Plan Area. The *Southwest Area Projects Subsequent EIR* noted that because population and employment changes themselves would not be considered significant environmental impacts under CEQA, they are not subject to impact analysis and mitigation measures in and of themselves.

The 2020 Modified Project would include residential development as envisioned in the Santa Rosa General Plan, the Southwest Santa Rosa Area Plan, and the Southwest Santa Rosa Redevelopment Plan. The Project site is currently designated as Medium-Low Residential by the City of Santa Rosa General Plan 2035, allowing a density with 8-13 units per acre. The 2020 Modified Project proposes a density of approximately 9.75 units/acre, which is consistent with the General Plan designation. The 2020 Modified Project is not considered substantial unplanned population growth and would not extend infrastructure or roads into areas that have not previously been accessible or planned for. No existing people or housing currently occupies the Project site, therefore, no displacement of people or housing would result.

The 2020 Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to population, employment, and housing than previously addressed in the *Southwest Area Projects Subsequent EIR*.

### 3.2.1 Mitigation measures

None required.

## 3.3 Visual Quality and Community Character

The *Southwest Area Plan Master EIR* found that development of the Southwest Santa Rosa Plan Area will generally convert lands that are currently semi-rural to rural in characters to an urban condition and identified the visual change as a significant and unavoidable impact. The City adopted a Statement of Overriding Considerations for the cumulative aesthetic impacts on June 21, 1994, making the appropriate findings as required by CEQA. The *Southwest Area Projects Subsequent EIR* found that implementation of Mitigation Measures 3.1.5-1 and 3.1.5-2 from the *Southwest Area Plan Master EIR* would be required for each individual project to be implemented under the Area Plan to reduce visual character and construction-related impacts.

The Concept Design for the 2020 Modified Project was reviewed by the Santa Rosa Design Review Board in light of adopted design review policies set forth in the City's Design Review Guidelines. The Design Review Board's comments including suggestions related to elevations, unit plans, architectural elements to create differentiation with colors and porch types, recommendations for asphalt shingle roofing color, and recommendations for colors and finishes of two-story units. The applicant revised the 2020 Modified Project in response to the Design Review Board's comments, including revisions to incorporate distinctly unique columns, railings, and roof types at each front porch to increase differentiation among units of the same type, replacement of the red tone asphalt shing

roofing color with a complimentary earth tone color, and the intention for two-story units to be both off-white and dark for variety. In addition, as noted in Section 3.1 of this EIR Addendum, the 2020 Modified Project complies with applicable zoning height limits and zoning designations. The outdoor lighting for the 2020 Modified Project proposes pole mounted decorative and interior street lighting fixtures that would be required to comply with requirements contained in City Municipal Code Section 20.30.080, which includes maximum heights light standards and requirements that lighting fixtures be shielded or recessed to reduce light spillage onto adjoining properties.

The applicable mitigation measures noted above are brought forward from the *Southwest Area Projects Subsequent EIR*, including requiring Project compliance with the Design Review Guidelines and Southwest Area Community Design policies prior to final Project approval, further ensuring that the 2020 Modified Project would be visually integrated with existing development in the area.

The 2020 Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to visual quality and community character than previously addressed in the *Southwest Area Projects Subsequent EIR*.

It is also noted that the Appendix G Environmental Checklist Form was modified by the Governor's Office of Planning and Research to include minor revisions relative to aesthetic-related impact questions after the prior EIR was certified. The changes to aesthetic related thresholds of significance consist of refinements and clarifications of existing requirements. Specifically, consideration of degradation of character or quality was clarified for urbanized areas. Although the specific language for aesthetic thresholds of significance have changed, the analysis was adequately considered in the EIR as summarized above.

### 3.3.1 Mitigation Measures

The following mitigation measures from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, reducing potential visual quality impacts to levels of less-than-significant.

#### 3.1.5-1 Overall Project Design

Comply with the Goals, Objectives, and Policies for Community Design in the Community Design Chapter of the Southwest Area Plan. Conformance review shall occur with each development decision utilizing the General Plan Urban Design Element, the Community Design Program of the Southwest Area Plan, and the City's Subdivision Design Guidelines to make decisions regarding proposed developments. Conformance review shall also occur during the City's Design Review process prior to the issuance of grading and construction permits.

#### 3.1.5-2 Construction Phase

- a. Minimize the stockpiling of sewer and water supply equipment to the extent practicable prior to installation of the infrastructure. Only materials required for several days of construction should be stockpiled at any given site at one time.
- b. Compensate for the removal of trees necessary to install infrastructure consistent with the Street Design Standard Policies contained in the Community Design Program Chapter of the Southwest Area Plan.

## 3.4 Soils, Geology and Seismicity

The *Southwest Area Plan Master EIR* addressed impacts from seismically-induced groundshaking; from erosion resulting from grading, excavation, and construction activities; and from expansive or weak soils. The *Southwest Area Projects Subsequent EIR* found that implementation of Mitigation Measures 3.2.1-2, 3.2.1-3, and 3.2.1-4 from the *Southwest Area Plan Master EIR* would be incorporated into conditions of approval and be implemented during improvement plans, building permits, and construction through the review of soils reports and studies, plan specifications, and field inspections.

The Project modifications do not change the location of the Project or the nature of proposed uses from that evaluated in the *Southwest Area Projects Subsequent EIR*. There are no active faults, potentially active faults, or Alquist-Priolo Earthquake Fault Zones located on or immediately adjacent to the Project site. The Project site is generally level to gently sloping, and no unstable slopes or geologic units have been identified in the Project

vicinity. Similar to the impact analysis in the *Southwest Area Projects Subsequent EIR*, the 2020 Modified Project may be subject to strong seismic ground shaking in an earthquake, and such ground shaking could cause structural damage to the proposed Project facilities and potentially create hazardous conditions for people using the facilities. The 2020 Modified Project also may be subject to native soils and sediments that are susceptible to liquefaction, expansion, or settlement. The applicable mitigation measures noted above are brought forward from the *Southwest Area Projects Subsequent EIR* and would address impacts related to soils, geology, and seismicity.

The 2020 Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to soils, geology and seismicity than previously addressed in the *Southwest Area Projects Subsequent EIR*.

It is also noted that the Appendix G Environmental Checklist Form was modified by the Governor's Office of Planning and Research to include minor revisions to geology and soil impact questions after the prior EIR was certified. The changes consist of refinements and clarifications, and the analysis of geologic and soil impacts was adequately considered in the EIR as summarized above.

### 3.4.1 Mitigation Measures

The following mitigation measures from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, reducing potential ground shaking, erosion, unsuitable foundation conditions, and seismic risk to population impacts to less-than-significant levels.

#### 3.2.1-2 Seismic Requirements

Incorporate seismic-restraint criteria in the design of slopes, foundations, and structures for projects within the Plan Area as outlined in the measures listed below:

- a. The minimum seismic-resistant design standards for all proposed facilities shall conform to the CUBC Seismic Zone 4 Standards.
- b. Additional seismic-resistant earthwork and construction design criteria shall be incorporated as necessary, based on the site-specific recommendations of California-registered geotechnical and structural engineering professionals, recommended to be in cooperation with a California Certified Engineering Geologist.
- c. During site preparation, the registered geotechnical professional shall be on the site to supervise implementation of the recommended criteria.
- d. The California-registered Geotechnical Engineer consultant shall prepare an "as built" map/report, to be filed with the City, showing details of the site geology, the location and type of seismic-restraint facilities, and documenting the following requirements, as appropriate.
  1. Engineering analyses shall demonstrate satisfactory performance of alluvium and fill where they form part or all of the support for structures.
  2. Analysis of soil expansion potential and appropriate remediation (compaction, removal, etc.) shall be completed prior to using expansive soils for foundation support.
  3. Roads, foundations and underground utilities in fill or alluvium shall be designed to accommodate settlement or compaction estimated by the site-specific investigations of the geotechnical consultant.

#### 3.2.1-3 Erosion Control – Grading during Wet Season

If grading or construction are to occur during the wet season, require an erosion and sediment transport control plan, designed by an erosion control professional, or landscape architect or civil engineer specializing in erosion control, that shall meet the following objectives for the grading and construction period of projects proposed for the Southwest Plan Area.

- a. The erosion and sediment transport control plan shall be submitted, reviewed, implemented and inspected as part of the approval process for the grading plans for each project.
- b. The plan shall be designed by the developers' erosion control consultant, using concepts similar to those developed by the Association of Bay Area Governments, as appropriate, based on the specific erosion and sediment transport control needs of each area in which grading and

construction is to occur. Those concepts include some which apply generally to the Southwest Plan Area (see bullet items on list below), and some that would be appropriate only for specific sites. The possible methods are not necessarily limited to the following items.

1. Confine grading and activities related to grading (demolition, construction, preparation and use of equipment and material storage areas (staging areas), preparation of access roads,) to the dry season, whenever possible.
  2. If grading or activities related to grading need to be scheduled for the wet season, ensure that structural erosion and sediment transport control measures are ready for implementation before the onset of the first major storm of the season.
  3. Locate staging areas outside major streams and drainage ways.
  4. Keep the lengths and gradients of constructed slopes (cut or fill) as low as possible.
  5. Discharge grading and construction runoff into small drainages at frequent intervals to avoid buildup of large potentially erosive flows.
  6. Prevent runoff from flowing over unprotected slopes.
  7. Keep disturbed areas (areas of grading and related activities) to the minimum necessary for demolition or construction.
  8. Keep runoff away from disturbed areas during grading and related activities.
  9. Stabilize disturbed areas as quickly as possible, either by vegetative or mechanical methods.
  10. Direct runoff over vegetated areas prior to discharge into public storm drainage systems, whenever possible.
  11. Trap sediment before it leaves the site with such techniques as check dams, sediment ponds, or siltation fences.
  12. Make the contractor responsible for the removal and disposal of all sedimentation in off-site retention ponds that is generated by grading and related activities of the project.
  13. Use landscaping and grading methods that lower the potential for down-stream sedimentation. Modified drainage patterns, longer flow paths, encouraging infiltration into the ground, and slower storm-water conveyance velocities are examples of effective methods.
  14. Control landscaping activities carefully with regard to the application of fertilizers, herbicides, pesticides or other hazardous substances. Provide proper instruction to all landscaping personnel on the construction team.
- c. During the installation of the erosion and sediment transport control structures, the erosion control professional shall be on the site to supervise the implementation of the designs, and the maintenance of the facilities throughout the demolition, grading and construction period.
- d. The erosion control professional shall prepare an "as built" erosion and sediment control facility map, to be filed with the City, showing details of the structural elements of the plan and providing an operating and maintenance schedule throughout the operational period of the project.

#### **3.2.1-4 Construction Where Soil Suitability is in Question**

Require site-specific soil suitability analysis and stabilization procedures, and design criteria for foundations, as recommended by a California-registered soil engineer during the design phase for each site where the existence of unsuitable soil conditions is known or suspected.

- a. During the design phase for each site where the existence of unsuitable soil conditions is known or suspected, the developer's registered soil engineering consultant shall provide documentation to the City that:
  1. Site-specific soil suitability analyses has been conducted in the area of the proposed foundation to establish the design criteria for appropriate foundation type and support, and
  2. The recommended criteria have been incorporated in the design of foundation.
- b. During grading for these sites, the registered soils professional shall be on the site to:

1. Observe areas of potential soil unsuitability,
  2. Supervise the implementation of soil remediation programs, and
  3. Verify final soil conditions prior to setting the foundations.
- c. The registered soils engineering consultant shall prepare an "as built" map, to be filed with the City, showing details of the site soils, the location of foundations, sub-drains and clean-outs, and the results of suitability analyses and compaction tests.

### 3.5 Hydrology and Water Quality

The *Southwest Area Plan Master EIR* addressed impacts of increased surface runoff on conduit and creek capacity and on quality of storm water runoff; construction erosion; construction in areas of high groundwater; and infiltration into the natural groundwater recharge zone. The *Southwest Area Plan Master EIR* found that implementation of Mitigation Measures 3.2.2-1 through 3.2.2-5 and 3.2.3-4 would reduce these potential impacts to a less-than-significant level. The *Southwest Area Projects Subsequent EIR* noted that these mitigation measures, as applicable, would be incorporated into the conditions of approval and be implemented during improvement plans, building permits, and construction.

The 2020 Modified Project would require the same level of general earth-disturbing activities and use of construction-related hazardous materials as evaluated in the *Southwest Area Projects Subsequent EIR*. The 2020 Modified Project includes filling of a linear wetland along the frontage of Fresno Avenue. The Corps issued a Nationwide Permit to fill this wetland feature on July 18, 2019. The applicant also has applied for a 401 Water Quality Certification currently under review by the North Coast RWQCB.

SWRCB Order No. 2009-0009, as amended by Order No. 2012-0006, has been adopted for the purpose of protecting the water quality of storm water runoff, and applies to public and private construction projects that include one or more acres of soil disturbance. As the Project would disturb greater than one acre of land, compliance with Order No. 2009-0009 would be required. This will include submittal of permit registration documents (notice of intent, risk assessment, site maps, SWPPP, annual fee, and certifications) to the State Water Resources Control Board. The SWPPP would address pollutant sources, non-storm water discharges resulting from construction dewatering, best management practices, and other requirements specified in the above-mentioned Order.

The Project site is not located in a 100 Year Flood Hazard Zone or in an area of high groundwater that requires subdrain requirements and would not utilize groundwater supplies. The 2020 Modified Project would result in the same general level of new impervious surfaces that would generate similar storm water flows as was evaluated in the *Southwest Area Projects Subsequent EIR*. In 2017, the City of Santa Rosa adopted a revised Storm Water Low Impact Development Technical Design Manual to facilitate design of permanent storm water features into development projects. The 2020 Modified Project is subject to the City of Santa Rosa's Low Impact Development storm water requirements, and consequently proposes collection and conveyance of storm water through a series of bio-retention beds to mitigate pollutants and provide volume capture for the 85th percentile 24-hour storm, consistent with the 2017 Storm Water Low Impact Development Technical Design Manual. The applicant also would be required to construct, inspect, and maintain the storm water LID facilities in accordance with a Final Standard Urban Stormwater Mitigation Plan (SUSMP) for the property. A Preliminary Drainage Study completed for the 2020 Modified Project includes hydrology and hydraulic calculations that show the existing storm drain within Fresno Avenue has the capacity to accept runoff from the proposed project (Civil Design Consultants, Inc. 2020). Therefore, operation of the 2020 Modified Project would be in compliance with the City's Storm Water LID Manual.

One applicable mitigation measure (Mitigation Measures 3.2.2-2) is brought forward from the *Southwest Area Projects Subsequent EIR* and would further address impacts related to water quality during grading and construction activities.

The 2020 Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects to hydrology and water quality than previously addressed in the *Southwest Area Projects Subsequent EIR*.

It is also noted that the Appendix G Environmental Checklist Form was modified by the Governor's Office of Planning and Research to include minor revisions to hydrology and water quality impact questions after the prior

EIR was certified. The changes consist of refinements and clarifications, and the analysis of impacts was adequately considered in the EIR as summarized above.

### 3.5.1 Mitigation Measures

The following mitigation measure from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, reducing potential impacts to hydrology and water quality to less-than-significant levels. Mitigation Measure 3.2.2-2 has been updated as appropriate to address current regulatory requirements and would avoid or reduce impacts to at least the same degree as, or to a greater degree than, the original measure.

#### 3.2.2-2 **Protect Water Quality During Grading (as modified in this Addendum)**

- a. To the maximum extent feasible, Construction earth-moving activities shall be scheduled for the dry season.
- b. Any projects that result in grading of an area greater than 1 acre shall be subject to State Water Resources Control Board Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities, as amended by Order No. 2012-0006. 5 acres shall be subject to an NPDES permit from the RWQCB. This permit requires that the applicant develop a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall address pollutant sources, non-storm water discharges resulting from construction dewatering, erosion and sedimentation, best management practices, and other requirements specified in the above-mentioned Order. A Qualified Storm Water Pollution Prevention Plan Practitioner will oversee implementation of the Plan, including visual inspections, sampling and analysis, and ensuring overall compliance. The permit requirements shall be satisfied prior to granting of a building permit by the City of Santa Rosa.
- c. A soil erosion and sedimentation control plan shall be submitted to the City of Santa Rosa by the applicant for individual projects proposed under the Southwest Area Plan prior to grading. This plan may include, but not be limited to, the following erosion control methods:
  1. During construction, soil on graded areas shall be revegetated as soon as possible following disruption.
  2. Use of interceptor ditches or drainage swales to intercept storm runoff from transporting sediment into drainages and to prevent sediment-laden runoff from leaving the disturbed area.
  3. ~~Construction shall be restricted in the months of November through April.~~ Grading shall be restricted in the months of October through April for construction projects on hillsides with slopes 10% or steeper unless the project is granted an exception by the City.
  4. Silt fences shall be constructed to prevent sheet flow across adjacent areas and down gradient into drainages. These and further measures shall be designed through the use of the Universal Soil Loss Equation to calculate the proper storage capacity required of silt fences or gravel bags, and shall be implemented by the contractor prior to mass grading and other soil disturbing construction activities on-site.
- d. Disturbed areas that have been graded for construction shall be replanted as soon as feasible after the completion of construction. Plantings shall be used on surfaces of cut and fill areas to collect surface runoff and reduce erosion.

### 3.6 Noise

The *Southwest Area Plan Master EIR* identified and evaluated two primary sources of noise: construction noise and cumulative traffic noise resulting from development of the Area Plan. The *Southwest Area Plan Master EIR* determined that the temporary construction noise impacts could be mitigated to a less-than-significant level with implementation of Master EIR Mitigation Measure 3.2.5-1.

The *Southwest Area Plan Master EIR* also determined that noise impacts to proposed projects from development of the Area Plan in conjunction with cumulative traffic could be mitigated to a less-than-significant level with implementation of Master EIR Mitigation Measure 3.2.5-2. The *Southwest Area Projects Subsequent EIR* noted

that because the proposed Southwest Area Projects would be consistent with the Master EIR and that the mitigation measures would be implemented, no additional evaluation of these potential noise impacts was required.

The *Southwest Area Plan Master EIR* also identified impacts to existing land uses from development of the Area Plan in conjunction with cumulative traffic as potentially significant and identified Mitigation Measure 3.2.5-3 to reduce the level of impact. Noise impacts to existing land uses were concluded to be significant and unavoidable. The *Southwest Area Projects Subsequent EIR* noted that noise impacts to existing land uses are still anticipated to be significant and unavoidable where mitigation is not feasible, and that no additional evaluation of noise impacts from cumulative traffic is required, and that *Southwest Area Plan Master EIR* Mitigation Measure 3.2.5-3 would be implemented for the proposed Southwest Area Projects wherever feasible to reduce the impacts to existing land uses.

Neither the Santa Rosa General Plan nor the Santa Rosa Noise Ordinance (Municipal Code Chapter 17-16 Noise) contain policies or regulations that apply to construction noise. Therefore, the Project would not generate noise levels in excess of applicable local standards. However, to minimize noise during construction, Mitigation Measure 3.2.5-1 from the *Southwest Area Projects Subsequent EIR* would be incorporated into conditions of approval and be implemented during construction of the 2020 Modified Project.

The 2020 Modified Project site is surrounded by open space to the east and south, similar residential development to the west, and low-impact commercial development to the north. The Project site is not anticipated to be subject to exterior noise levels over 60 L<sub>dn</sub>, and non-Project generated noise exposure increases (e.g., exposure of the Project residents to exterior or interior noise levels) are not required analysis under CEQA since these items involve the surrounding environment's impact on the Project residents.

The 2020 Modified Project would result in an increase in the number of residential units at the Project site from the 39 single-family detached units evaluated in the *Southwest Area Projects Subsequent EIR* to a 67-unit residential development. Implementation of the Project is expected to result in typical noises associated with residential development, such as the voices of the residents, automobile use and parking, and maintenance activities. The voices, residents parking, and maintenance activities are not anticipated to result in a substantial permanent increase in noise to existing surrounding land uses. In regard to traffic, the Traffic Impact Study estimates that the Project would generate an average of 494 total daily vehicle trips. This volume of daily vehicle trips would not produce a substantial increase in roadway noise (generally considered to be an increase of 3 dBA L<sub>dn</sub> or more), as a doubling of all the existing traffic on local area roadways would be required to produce a 3 dBA L<sub>dn</sub> increase in roadway noise.

The 2020 Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects to noise than previously addressed in the *Southwest Area Projects Subsequent EIR*.

It is also noted that the Appendix G Environmental Checklist Form was modified by the Governor's Office of Planning and Research to include minor revisions to noise-related impact questions after the prior EIR was certified. The changes consist of refinements and clarifications, and the analysis of impacts was adequately considered in the EIR as summarized above.

### 3.6.1 Mitigation Measures

The following mitigation measures from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, reducing potential noise impacts to less-than-significant levels. Mitigation Measure 3.2.5-1 has been updated as appropriate to address revised construction hour limits and would avoid or reduce impacts to at least the same degree as, or to a greater degree than, the original measure.

#### 3.2.5-1 Noise

- a. To minimize construction noise impacts of nearby residents, limit construction hours to between 7:00 a.m. and 7:00 p.m. on weekdays and between 9:00 a.m. and 6:00 p.m. on ~~weekends~~ Saturdays for projects within 1,600 feet of inhabited dwelling unit(s). Any work outside of these hours shall require a special permit from the City of Santa Rosa. There shall be compelling reasons for permitting construction outside of the designated hours.

- b. Construction equipment shall be properly outfitted and maintained with noise reduction devices to minimize construction-generated noise.
- c. The contractor shall locate stationary noise sources away from residents and developed areas, and require use of acoustic shielding with such equipment when feasible and appropriate.

### 3.7 Air Quality

The *Southwest Area Plan Master EIR* addressed impacts from construction-related emissions from traffic, home heating/cooling, wood burning, and from construction and operation-related toxic air emissions. The *Southwest Area Plan Master EIR* found that implementation of mitigation measures would reduce construction-related, vehicular, and toxic air contaminant (TAC) emissions to a less-than-significant level. The *Southwest Area Projects Subsequent EIR* noted that these mitigation measures would be incorporated into the conditions of approval of the proposed Southwest Area Projects and would be implemented during preparation and review of improvement plans and building permits and during construction.

Construction activities for the 2020 Modified Project would be similar to that evaluated in the *Southwest Area Projects Subsequent EIR*, including grading, building construction, and paving. Generally, the most substantial air pollutant emissions during construction would be dust generated from site grading. The Bay Area Air Quality Management District (BAAQMD) has identified fugitive dust from construction activities as a source of localized PM10/PM2.5. The BAAQMD bases the determination of significance for fugitive dust on a consideration of the control measures to be implemented. If the basic construction measures recommended by BAAQMD are implemented for a project, then fugitive dust emissions during construction are not considered significant. City of Santa Rosa General Plan policy OSC-J-1 requires implementation of the BAAQMD-recommended dust abatement actions in new development projects. Mitigation Measure 3.2.4-1 from the *Southwest Area Projects Subsequent EIR* would be incorporated into conditions of approval and be implemented during construction of the 2020 Modified Project. Mitigation Measure 3.2.4-1 has been updated to include latest control measures required by the BAAQMD.

The BAAQMD developed screening levels to help determine when detailed analysis is necessary to determine significance for operational criteria pollutant and precursor emissions. The screening levels represent the size of development by land use type at which BAAQMD's regional emissions thresholds of significance for ROG, NOX, PM10, and PM2.5 would not be exceeded. The BAAQMD identifies an operations screening level of 325 dwelling units for a single-family residential development and 451 dwelling units for a general condo-townhouse development (BAAQMD 2017). The screening levels represent the size of development by land use type at which BAAQMD's emissions thresholds of significance for ROG, NOX, PM10, and PM2.5 would not be exceeded. In comparison, the 2020 Modified Project would result in operation of 67 residential units, substantially fewer than the operational criteria pollutant screening levels.

The 2020 Modified Project is designed to comply with State Energy requirements for Title 24, and CAL Green Tier 1 Standards. In addition, the updated Mitigation Measure 3.2.4-1 from the *Southwest Area Projects Subsequent EIR* includes minimizing idling times for trucks and equipment to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]), ensuring that construction equipment is maintained in accordance with manufacturer's specifications and other measures. The Project's required compliance with the City's Climate Action Plan also would require provisions in contractor agreements requiring the use of electric equipment and/or equipment using alternative fuels as feasible and appropriate, which would further reduce diesel-powered equipment emissions. The 2020 Modified Project would not result in the exposure of sensitive receptors to substantial pollutant concentrations.

The 2020 Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to air quality than previously addressed in the *Southwest Area Projects Subsequent EIR*.

It is also noted that the Appendix G Environmental Checklist Form was modified by the Governor's Office of Planning and Research to include minor revisions to air quality impact questions after the prior EIR was certified. The changes consist of refinements and clarifications, and the analysis of impacts was adequately considered in the EIR as summarized above.

### 3.7.1 Mitigation Measures

The following mitigation measure from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, reducing potential air quality impacts to less-than-significant levels. Mitigation Measure 3.2.4-1 has been updated as appropriate to address current BAAQMD recommended construction measures and would avoid or reduce impacts to at least the same degree as, or to a greater degree than, the original measure.

#### **3.2.4-1 Implement Air Quality Control Measures during Construction (as modified in this Addendum)**

Each project proponent is responsible for ensuring that the contractor reduces particulate, ROC, NO<sub>x</sub>, and CO emissions by complying with the air pollution control strategies developed by the BAAQMD. The developer shall include in construction contracts the following requirements:

- a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas and unpaved access roads) shall be watered or a non-toxic soil binder applied two times per day; The contractor shall water on a continuous as needed basis all earth surfaces during clearing, grading, earthmoving, and other site preparation activities.
- b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered; The contractor shall use tarpaulins or other effective covers for haul trucks that travel on public streets.
- c. All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited; The contractor shall sweep streets adjacent to the project at the end of the day.
- d. The contractor shall schedule clearing, grading, and earthmoving activities during periods of low wind speeds and restrict those construction activities during high wind conditions with wind speeds greater than 20 mph average during an hour.
- e. All vehicle speeds on unpaved areas shall be limited to 15 miles per hour; The contractor shall control construction and site vehicle speed to 15 mph on unpaved roads.
- f. The contractor shall minimize open burning of wood/vegetative waste materials from both construction and operation of the project. No open burning shall occur unless it can be demonstrated to the BAAQMD that alternatives have been explored. These alternatives may include, but are not limited to, chipping, mulching, and conversion to biomass fuel. For any open burning, an BAAQMD permit must be obtained and done in conformance with BAAQMD regulations.
- g. All paving shall be completed as soon as possible after work is finished;
- h. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of CCR). Clear signage shall be provided for construction workers at all access points;
- i. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation; and
- j. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

### 3.8 Traffic and Circulation

The *Southwest Area Projects Subsequent EIR* analyzed effects to traffic and circulation associated with the Southwest Area Projects. The *Southwest Area Projects Subsequent EIR* determined the Project as previously proposed would generate fewer than 50 peak hour trips and would therefore have a less-than-significant impact on localized traffic. The *Southwest Area Projects Subsequent EIR* noted that the Project was not required to be

evaluated in further detail for site-specific impacts, and that site-specific traffic analysis was not required as part of its environmental review.

To evaluate the 2020 Modified Project, a Focused Traffic Study was prepared that included updating the estimated trip generation (W-Trans 2021). A copy of the Focused Traffic Study for the 2020 Modified Project is included as Appendix B. The evaluation used standard rates published by the Institute of Transportation Engineers in the Trip Generation Manual (10th Edition) for “Residential Planned Unit Development (PUD)” (LU #270), as this description best represents the proposed housing units. Based on application of these rates, the proposed Project would be expected to generate an average of 494 trips per day, including 38 a.m. peak hour trips and 46 p.m. peak hour trips. Therefore, the 2020 Modified Project would not generate more than 50 peak hour trips, similar to the project evaluated in the *Southwest Area Projects Subsequent EIR*, and under the City of Santa Rosa’s guidelines for traffic operational analysis, an analysis of off-site operational impacts is not required. The impact on localized traffic would be less than significant, as evaluated in the *Southwest Area Projects Subsequent EIR*.

Senate Bill (SB) 743 established a change in the metric to be applied to determining traffic impacts associated with development projects. Rather than the delay-based criteria associated with a Level of Service (LOS) analysis, the change in Vehicle Miles Traveled (VMT) as a result of a project is now the basis for determining impacts with respect to transportation and traffic under CEQA. This new metric does not introduce new information that was not previously known at the time of the *Southwest Area Projects Subsequent EIR* but provides a different lense for consideration of potential traffic impacts of new development. VMT is not required under CEQA to be included in this Addendum but is provided here for information purposes only. For residential uses, the City of Santa Rosa uses a metric of VMT per capita. A project exceeding a level of 15 percent below the existing regional VMT per capita may indicate a significant transportation impact. The State Office of Planning and Research (OPR) encourages the use of screening maps to establish geographic areas for which the anticipated VMT would be 15 percent below regional average thresholds, allowing jurisdictions to “screen” projects in those areas from quantitative VMT analysis under which impacts can be presumed to be less than significant. The Sonoma County Transportation Authority (SCTA) prepared a draft residential screening map for the City of Santa Rosa (W-Trans 2021). Residential pre-screened areas have been identified as being within transit priority areas (areas within 0.5 mile of rail station), along high-quality transit corridors (areas within 0.5 mile of transit routes with 15-minute peak headways), and areas with residential VMT per capita lower than 15% below the countywide average as estimated by the 2019 Sonoma County Travel Model. The Project site is within the residential pre-screened area for Santa Rosa, so it is therefore reasonable to conclude that the Project would have a less-than-significant VMT impact (W-Trans 2021).

The 2020 Modified Project would have three access points which satisfies the City Street Design Standards that require projects with more than 50 residential units to provide a secondary access point. As proposed, Terrabrook Drive would vary in width from 24 to 36 feet depending on the presence of street parking on one side, both sides, or no street parking. Street A would be 24 feet wide and would have no street parking. Both Project streets would be wide enough to accommodate two-way traffic as well as emergency response vehicles. Therefore, both site access and on-site circulation would be expected to operate acceptably.

Sight distances along Fresno Avenue at the proposed new intersections were evaluated based on sight distance criteria contained in the Highway Design Manual, 6th Edition published by Caltrans. The recommended sight distances for minor street approaches to intersections are based on corner sight distance. For the posted 25-mph speed limit on Fresno Avenue, the recommended corner sight distance is 275 feet. Based on a review of the field conditions, sight distances at all the proposed intersection locations extend more than 300 feet in both directions so are adequate for the posted speed limit. Similarly, sight lines along Fresno Avenue approaching the Project access points are more than adequate to allow a following driver to observe and react to a vehicle stopped in the roadway while the driver waits to turn left into the site. Therefore, based on field observations and the Project site plan, sight distances along Fresno Avenue are adequate to accommodate all turns into and out of the site.

Continuous sidewalks would be constructed along the Project site’s frontage with Fresno Avenue and along both sides of the new streets to be constructed within the Project site. Residents would be able to use the Project sidewalks, existing sidewalks on the west side of Fresno Avenue south of Sebastopol Road, and an existing four-foot paved shoulder on the east side of Fresno Avenue to reach the nearest transit stops, which are within an acceptable walking distance from the site of less than one-quarter mile.

In the Project vicinity there are existing Class II bicycle lanes in the southbound direction on Fresno Avenue between Sebastopol Road and approximately 150 feet south of New Zealand Avenue, and on Sebastopol Road

between approximately 450 feet west of Campoy Street and Fresno Avenue and between Corporate Center Parkway and Avalon Avenue. According to the Santa Rosa Bicycle and Pedestrian Master Plan, there are plans to provide Class II bike lanes on Fresno Avenue between New Zealand Avenue and Finley Avenue and on Sebastopol Road between Fresno Avenue and Corporate Center Parkway. The 2020 Modified Project is consistent with this plan as the planned northbound bike lane on Fresno Avenue would be constructed along the Project frontage as part of the Project. Therefore, access for pedestrians, bicyclists, and transit riders would be adequate.

Based on the application of standard City rates per Section 20-36.040 of the City of Santa Rosa Zoning Code, the 2020 Modified Project would need to provide a total of 175 parking spaces on-site, 67 of which would need to be covered. With a proposed supply of 194 spaces, including 89 in covered garages, the 2020 Modified Project would exceed City requirements, and thus the proposed parking supply would be adequate.

The 2020 Modified Project includes construction of roadway improvements along the site's frontage with Fresno Avenue. Construction of these improvements would occur within the City's public right-of-way and would require the contractor to obtain an encroachment permit. As part of the encroachment permit process, the applicant and its construction contractor would be required to prepare a traffic control plan for review and acceptance of planned work within the City right-of-way. This would include information on the lengths and widths of work zones, tapers and sign spacing, and all lanes to be used, reduced, or left open. As stated in the "Traffic Standards" section of the City's Design and Construction Standards, no work shall be completed in the public right-of-way during peak hours, unless permitted by the City Traffic Engineer. The Project would be required to keep at least one lane open in each direction of travel on Fresno Avenue at all times during the construction process and would require proper controls to minimize impacts of the work on vehicular and pedestrian traffic.

The 2020 Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to traffic and circulation than previously addressed in the *Southwest Area Projects Subsequent EIR*.

### 3.8.1 Mitigation Measures

None required.

## 3.9 Utilities and Public Services

The *Southwest Area Projects Subsequent EIR* evaluated and addressed potential impacts from increased demand for water supply, wastewater treatment, schools, parks, recreation facilities, solid waste disposal, and police, fire, and emergency services. The *Southwest Area Projects Subsequent EIR* found that implementation of applicable mitigation measures would reduce potential impacts of individual and collective Southwest Area Projects to a less-than-significant level. The *Southwest Area Projects Subsequent EIR* noted that applicable mitigation measures will be incorporated into the conditions of the proposed individual Projects and will be implemented during preparation and review of improvement plans and building permits and during construction.

The 2020 Modified Project would utilize water to be purchased from the City of Santa Rosa to meet potable water demands. The total water demand within Santa Rosa in 2020 was estimated to be 24,289 acre-feet per year (Santa Rosa 2016), and the additional water supply capacity available within the City was estimated to be 7,251 acre-feet. Additionally, the Senate Bill 610 Water Supply Assessment for the Santa Rosa General Plan 2035 concludes that the City's projected water supplies are sufficient to meet the projected water demand associated with buildout of the Santa Rosa General Plan. Consistent with the findings of the *Southwest Area Projects Subsequent EIR*, adequate water supplies would continue to be available to serve the estimated water demand for the 2020 Modified Project.

Wastewater generated from the 2020 Modified Project would be treated at the Subregional Laguna Water Reuse Facility (Laguna Treatment Plant) for treatment and disposal. The Laguna Treatment Plant provides tertiary treatment of wastewater collected from the four subregional partners that include Santa Rosa, Rohnert Park, Cotati, and Sebastopol, as well as the South Park Sanitation District. The Laguna Treatment Plant is currently permitted to treat an average dry weather flow (ADWF) of 21.34 mgd, 16.31 mgd of which is allocated for the City of Santa Rosa. The Laguna Treatment Plant's ADWF in 2017 was 14.5 mgd, indicating that approximately 6.84 mgd of capacity is available (Santa Rosa 2017a). The City of Santa Rosa approved an Incremental Recycled Water Program in 2004, which is being implemented as growth occurs, eventually increasing the Laguna

Treatment Plant's ADWF capacity to 25.89 mgd (19.14 mgd of which would be allocated to Santa Rosa). Based on the existing capacity of the Laguna Treatment Plant, the Project can be adequately served from existing wastewater treatment facilities. In addition, Mitigation Measure 3.3-2 from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, requiring collection of sanitary sewer connection fees.

The Project site is located within the Wright Elementary School District. Wright Elementary School District is a PreK-8 public school district educating over 1,500 students per year at four schools. Mitigation Measure 3.3-3 from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, requiring payment of statutory fees to offset the cost of providing school services to new residential developments.

Parks in the vicinity of the Project site include the 1.96-acre Village Green Park, which is located approximately 0.1-mile northwest of the Project site, which includes barbecues, basketball court, grass area, picnic tables, and a playground. Mitigation Measure 3.3-4 from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, requiring payment of in-lieu park development fees, as applicable.

The Santa Rosa Fire Department is responsible for responding to emergency incidents within the City. The City of Santa Rosa Fire Department currently operates 11 fire stations within the City. The nearest fire station to the Project site, and the primary responder, would be Fire Station #10 located at 2373 Circadian Way, approximately 1 mile to the northwest of the Project site. The secondary responder would be Fire Station #8, located at 830 Burbank Avenue, approximately 1.5 miles east of the Project site. Police protection in the Project area would be provided by the Santa Rosa Police Department. Mitigation Measure 3.3-6 from the *Southwest Area Projects Subsequent EIR* may be applicable to the 2020 Modified Project, requiring the Project applicant to participate in the Community Services District Program as a condition of approval.

Solid waste within the City of Santa Rosa is collected and transported to the Central Disposal Site Transfer Station. Municipal solid waste is then disposed of at both the Central Disposal site and at out-of-County landfills within the Bay Area. Out-of-County landfills include Redwood Sanitary Landfill in the City of Novato, Potrero Hills Landfill in Suisun City, Vasco Road Landfill in the City of Livermore, and Keller Canyon Landfill in the City of Pittsburg. Sufficient capacity exists at regional landfills to accommodate the 2020 Modified Project's solid waste disposal needs. Solid waste generated during construction and operation of the Project would represent a small fraction of the daily permitted tonnage of these facilities. Therefore, the Project's solid waste disposal needs would be sufficiently accommodated by existing landfills, and the impact would remain less than significant.

The 2020 Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to utilities than previously addressed in the *Southwest Area Projects Subsequent EIR*.

### 3.9.1 Mitigation Measures

The following mitigation measures are brought forward from the *Southwest Area Projects Subsequent EIR* and would be applicable to the 2020 Modified Project, reducing potential utility impacts to less-than-significant levels.

#### **3.3-2 Collect Sanitary Sewer Connection Fee (as modified in this Addendum)**

To fund additional infrastructure required to serve the proposed Project as well as other developments in the Southwest Area, the applicable sanitary sewer connection fee will be collected. ~~an increase in the sanitary sewer connection fee was implemented on July 1, 2004. With this change, the average sanitary sewer connection fee for a single family residence in the Southwest Area became approximately \$7,000 to \$10,000 (Mowrey, 2004).~~

#### **3.3-3 Implement Payment of Mitigation Fees for Schools (as modified in this Addendum)**

Santa Rosa City Schools and Bellevue Union School, Roseland, and Wright School Districts require the payment of statutory fees to offset the cost of providing elementary, junior high, and high school services to new residential developments. The impacted school districts should use these funds to provide adequate school facilities, consistent with Policy PSF-C-2, Page 6-19 of the General Plan, to meet the needs of the additional school district enrollments to reduce school impacts to an insignificant level. The fees charged will be consistent with current district policies (Freshley, 2004, Roeder, 2004, Greco, 2004).

### **3.3-4 Require Park Land Dedication and Park Development or in-lieu Park Fees**

Prior to issuance of a building permit, require that each project sponsor in the Southwest Area provide adequate park land dedication in their project proposals or pay in-lieu Land Dedication Fees and pay the Park Development Fees. Park Development fees levied by the City should be adequate to cover the cost of park maintenance, both for existing and proposed new parks. Where possible, funds for park maintenance should also be supplemented through additional funding sources, including, but not limited to, Homeowner's Associations, Benefit Assessment Districts, and CFDs. City staff shall work with project sponsors to secure additional funding for park maintenance through such means.

### **3.3-6 Implement Community Services District Program (as modified in this Addendum)**

Prior to approval of final development plans, the Project applicants shall participate in the Community Services District Program, or as otherwise approved by the Director of Planning and Economic Development, as a condition of approval.

## **3.10 Hazardous Materials**

The *Southwest Area Projects Subsequent EIR* evaluated and addressed potential impacts from hazardous materials and hazardous wastes. The Subsequent EIR noted that Phase I and Phase II Environmental Site Assessments were performed for the 930 Fresno Avenue Project site, which included assessment of two former 55-gallon drums on the site and the on-site area adjacent to the former Naval Air Station east of the Project site. Investigations included soil borings, soil sampling, and groundwater sampling. The *Southwest Area Projects Subsequent EIR* noted that the Phase II investigation did not reveal evidence of petroleum hydrocarbons or volatile organic compounds in the soils or groundwater at the site. Nevertheless, the *Southwest Area Projects Subsequent EIR* included mitigation measures to reduce potential impacts of individual Southwest Area Projects to a less-than-significant level, including the potential to encounter contaminated areas not identified in previous studies.

The 2020 Modified Project was reviewed to determine if the Project site or surrounding properties are included on any list of hazardous waste sites, including:

- Department of Toxic Substances Control EnviroStor database;
- List of Leaking Underground Storage Tank Sites from the Water Board GeoTracker database;
- List of solid waste disposal sites identified by the Water Board with waste constituents above hazardous waste levels;
- List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from the Water Board;
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

The Project site is not located on any of the above lists compiled pursuant to Section 65962.5 of the Government Code, and construction is not anticipated to encounter any residual contamination from any known off-site sources. In addition, there are no buildings present on the Project site that would be renovated or demolished. The former Santa Rosa Livestock Auction Yard building was removed from the Project site in 2017, and only the foundation of the former Auction Yard remains present at the site.

Mitigation Measures 3.4-1a and 3.4-1b from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project if any lead paint or asbestos-containing material is present within the remaining foundation of the former Auction Yard building or any underlying pipelines that may require removal. The mitigation measures require proper abatement of any unanticipated hazardous materials during construction, if encountered.

The 2020 Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to hazardous materials than previously addressed in the *Southwest Area Projects Subsequent EIR*.

### 3.10.1 Mitigation Measures

The following mitigation measures from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, specifically demolition of the foundation of the former Santa Rosa Livestock Auction Yard building and associated utilities, reducing potential hazardous materials impacts to less-than-significant levels.

#### **3.4-1a Implement OSHA Standards for Lead Paint Removal (as modified in this Addendum)**

United States Occupational Safety and Health Administration (OSHA) standards requiring protection for workers when working with paint containing lead will be implemented during building renovations and/or demolitions, regardless of the concentration. Workers performing paint removal work will follow the OSHA lead standard for the construction industry. The lead content of the paint will be determined and proper waste disposal requirements and worker protection measures implemented.

#### **3.4-1b Properly abate asbestos-containing materials (as modified in this Addendum)**

Prior to ~~the renovation and/or~~ demolition of the foundation of the former Santa Rosa Livestock Auction Yard a building and associated utilities, any potentially present asbestos-containing materials must be properly abated by a licensed asbestos contractor. Regulations require that proper safety procedures will be followed while removing, repairing, and disposing of the asbestos-containing materials.

## 3.11 Historic and Cultural Resources

The *Southwest Area Projects Subsequent EIR* evaluated and addressed potential impacts related to archaeological resources and historic structures. Impact 3.5-3 of the *Southwest Area Projects Subsequent EIR* found that the former Santa Rosa Livestock Auction Yard that was located on the Project site was a historic property eligible for listing in the California Register of Historic Resources, was locally important, and appeared to be historically significant. The *Southwest Area Projects Subsequent EIR* found that implementation of Mitigation Measure 3.5-3 would reduce potential impacts to the historic resources on the Project site to a less-than-significant level. Mitigation Measure 3.5-3 required the Project applicant to deposit a copy of the historic resources evaluation and historic resources site record with the Sonoma County Library, Department of Community Development, and Sonoma County Museum, and to deposit a collection of original business documents from the Santa Rosa Livestock Auction Yard to the Sonoma County Library prior to demolition of the Santa Rosa Livestock Auction Yard buildings and corrals at the Project site.

As noted in Section 1.3 (Changes in Circumstances) of this EIR Addendum, the Santa Rosa Livestock Auction Yard building was removed in 2017. Signs from the Auction Yard were relocated to the Sonoma County Library at the time of demolition for historical preservation in compliance with Mitigation Measure 3.5-3 of the *Southwest Area Projects Subsequent EIR*. Presently, only the foundation of the former Auction Yard remains present at the site, as well as an Italian cypress tree.

A cultural resources study conducted for the 2020 Modified Project (Origer & Associates 2019) determined that the remaining foundation does not convey historical association with Agricultural Development and the integrity of feeling, design, materials, and workmanship are no longer present. Therefore, the remaining elements of the Auction Yard that is present at the Project site was not found to be eligible for the State or National Register of Historic Places. No new potential impacts related to historic structures not previously addressed in the *Southwest Area Projects Subsequent EIR* would occur as a result of the 2020 Modified Project.

For archaeological resources, the *Southwest Area Projects Subsequent EIR* concluded that it is possible that previously undiscovered archaeological deposits could be discovered during construction of individual Southwest Area Projects, and that Mitigation Measures 3.5-1a and 3.5-1b would be required for individual projects and would reduce impacts to a less-than-significant level. Mitigation Measure 3.5-1a and 3.5-1b required monitoring ground-disturbance activities during construction and procedures to address discovery of unanticipated resources and to preserve and/or record those resources consistent with appropriate laws and requirements.

To support the CEQA review and environmental permitting for the Project, the applicant contracted with a qualified archaeological consulting firm to develop a Cultural Resources Study for the Project site (Tom Origer & Associates 2019). The Cultural Resources Study included archival research at the Northwest Information Center, Sonoma

State University, examination of the library and files of Tom Origer & Associates, Native American contact, and field inspection of the area of potential effects. The Cultural Resources Study included a field survey of the 6.87-acre Project site on October 14, 2019. Surface examination consisted of walking in 15-meter transects using a hoe as needed to expose the ground surface and examining soils from rodent burrows. No archaeological site indicators were observed during the field survey. The Cultural Resources Study noted that the analysis of the environmental setting, including landform age, slope, and distance to water, was weighed against Meyer and Kaijankoski (2017) analysis of sensitivity for buried sites, and that per this model, there is the lowest potential (<1.0) for buried archaeological site deposits within the Project site. The Cultural Resources Study also noted that there are no reported ethnographic sites within one mile of the survey area.

The Cultural Resources Study included a request sent to the State of California's Native American Heritage Commission (NAHC) seeking information from the Sacred Lands File and the names of Native American individuals and groups that would be appropriate to contact regarding this 2020 Modified Project. Letters were then sent to the following groups:

- Cloverdale Rancheria of Pomo Indians of California
- Dry Creek Rancheria of Pomo Indians
- Federated Indians of Graton Rancheria
- Kashia Band of Pomo Indians of the Stewarts Point Rancheria
- Lytton Rancheria of California
- Middletown Rancheria of Pomo Indians of California
- Mishewal-Wappo Tribe of Alexander Valley

The NAHC replied via email with a letter dated October 7, 2019, which indicated that the Sacred Lands File has no information about the presence of Native American cultural resources in the immediate Project area. A response was received on October 15, 2019, from a representative of the Lytton Rancheria of California, stating that no specific information about the Project but that the land does fall within their traditional Pomo territory. The representative from the Lytton Rancheria further stated that artifacts and sites may be encountered during the Project. The Tribal Historic Preservation Officer for the Federated Indians of Graton Rancheria responded on October 16, 2019, stating that the APE is within the tribe's ancestral territory.

Mitigation Measures 3.5-1a and 3.5-1b from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, requiring monitoring during initial ground-disturbance activities and procedures to address discovery of unanticipated resources consistent with appropriate laws and requirements.

The 2020 Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects related to cultural resources than previously addressed in the *Southwest Area Projects Subsequent EIR*.

It is also noted that the Appendix G Environmental Checklist Form was modified by the Governor's Office of Planning and Research to include tribal cultural resources after the prior EIR was certified. The analysis and the Cultural Resources Study conducted for the project in 2019, which included notifications to the Native American Heritage Commission and Native American Tribes, adequately considers the impact in the EIR Addendum.

### 3.11.1 Mitigation Measures

The following mitigation measures from the *Southwest Area Projects Subsequent EIR* are applicable to the 2020 Modified Project and would reduce potential cultural resources impacts to less-than-significant levels. The mitigation measures have been updated as appropriate to address current regulatory requirements and avoid or reduce impacts to at least the same degree as, or to a greater degree than, the original measures.

#### **3.5-1a Monitor Ground-Disturbing Activities during Construction (as modified in this Addendum)**

A qualified archaeologist will monitor excavation and other ground-disturbing activities within the project footprint, as necessary ~~on the Project sites~~. The archaeologist shall conduct inspections during initial grading ~~of a development project with~~ and provide an evaluation at that time regarding the need for further archaeological monitoring for the site. ~~Project~~

In the event that any remains of prehistoric or historic human activities, features (such as culturally modified soil deposits), or artifacts are encountered during project-related activities, work in the immediate vicinity of the find shall halt and the contractor shall immediately notify the project superintendent and the City of Santa Rosa liaison. If not already on site, the project superintendent shall immediately contact the City of Santa Rosa Department of Planning and Economic Development Community Development (Department). The superintendent shall also retain the services of a qualified cultural resource specialist, as approved by the Department, to evaluate the archaeological deposit. The evaluation will determine the significance of the archaeological deposit in terms of its eligibility for listing in the CRHR, pursuant to California Public Resources Code Section 5024.1. Representatives of the Federated Indians of Graton Rancheria and the Lytton Rancheria shall also be notified and shall be allowed to access the site to make recommendations as to treatment and handling of resources.

If field reconnaissance or construction monitoring result in the identification of archaeological deposits and a qualified professional determines that the deposits meet the criteria for listing in the California Register and are therefore determined to be significant deposits, options for avoidance of or minimization of impacts to the sites would include the following:

1. Modify development plans to allow for the preservation of the archaeological site or sites. This could include incorporating site locations into protected open space areas or parklands.

2. In considering any suggested measures proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the City shall determine whether avoidance is feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures as recommended by the archaeologist (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project while mitigation for historic resources or unique archaeological resources is being carried out.

3. Should human remains be discovered during construction, all construction activities shall be halted immediately within 50 feet of the discovery, the City shall be notified, and the Sonoma County Coroner shall be notified, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission within 24 hours of the determination, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.

~~2. Cover or "cap" the site with a layer of protective fill. This measure could be especially effective where a given project might lead to increased public access to a site area. A qualified archaeologist should monitor the capping or filling process to ensure that the site is not inadvertently damaged during this process. The project owner should deed a conservation easement for the area containing the site, plus a suitable buffer area, to ensure that subsequent activities do not damage the site.~~

~~If prehistoric archaeological deposits discovered before or during construction are determined significant and cannot be avoided or capped and avoided, the designated cultural resources specialist shall recommend a plan of action. This plan of action may include a program of scientific excavation or other scientific investigation to recover data within the context of a detailed and approved regional research design that recognizes and addresses the informational value of the site for the study of history or prehistory.~~

~~Work may not resume until the Department has indicated that work may resume. The resumption of work will be permitted after site has been evaluated, a plan of action has been approved by the Department, and the plan has been carried out to the satisfaction of the Department.~~

~~Pursuant to Sections 7050.5 and 5097.94 of the Public Resources Code, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby areas reasonably suspected to overlie adjacent remains and the construction superintendent shall contact the County Coroner. If the Coroner recognizes the human remains as those of a Native American, he or she will contact,~~

by telephone, the Native American Heritage Commission (NAHC) within 24 hours. The NAHC will appoint a Most Likely Descendant, who will contact the Project owner to consult regarding the disposition of the remains.

### **3.5-1b Incorporate Monitoring Requirements into Grading Plans (as modified in this Addendum)**

The public improvement and grading plans shall include the following notes:

1. "The grading contractor shall conduct operations only under the direction of an archaeological spot-checking to be conducted by a qualified archaeologist. The archaeological spot-checker shall conduct inspections during initial grading with an evaluation at that time regarding the need for further archaeological monitoring for the project. The spot checker shall contact the Santa Rosa Department of Planning and Economic Community Development, at (707) 543-3200 3258 when he/she begins the inspection. The spot checker shall submit a report of findings to the Santa Rosa Department of Planning and Economic Community Development."

2. "In the event that any remains of prehistoric or historic human activities, features (such as culturally modified soil deposits) or artifacts are encountered during Project-related activities, work in the immediate vicinity of the finds shall halt and the contractor shall immediately notify the project superintendent and the City of Santa Rosa liaison. The project superintendent shall immediately contact the City of Santa Rosa Department of Planning and Economic Community Development (Department). The superintendent shall also immediately retain the services of a qualified cultural resource specialist, as approved by the Department, to evaluate the deposits for significance and develop a plan of action. Representatives of the Federated Indians of Graton Rancheria and the Lytton Rancheria shall also be notified and shall be allowed to access the site to make recommendations as to treatment and handling of resources. If warranted by the discovery of a concentration of artifacts or soil deposits that may represent an archaeological site, further work in the discovery area should be monitored by an archaeologist and Native American monitor. If human remains are encountered, the contractor must contact the County Coroner. If the Coroner deems the remains to be Native American, the Coroner will contact the NAHC so that a 'Most Likely Descendant' can be designated. The superintendent shall consult with the Most Likely Descendant regarding the disposition of the human remains.

Project personnel shall not disturb or collect cultural resources. Work may not resume until the Department has indicated that work may resume. The resumption of work will be permitted after site has been evaluated, a plan of action has been approved by the Department, and the plan has been carried out to the satisfaction of the Department."

### **3.5-3 Complete Historic Resources Documentation for the Santa Rosa Livestock Auction Yard**

Prior to demolition of the Santa Rosa Livestock Auction Yard buildings and corrals at the Project 22-Cherry Ranch site, the project applicant will deposit a copy of the historic resources evaluation and historic resources site record with the Sonoma County Library, Department of Planning and Economic Development, and Sonoma County Museum, and will deposit a collection of original business documents from the Santa Rosa Livestock Auction yard in the Sonoma County Library. The evaluation records shall include a written historic context statement documenting the significance of the property in the history of Santa Rosa.

## **3.12 Vegetation, Wildlife, and Habitat**

The *Southwest Area Projects Subsequent EIR* evaluated and addressed potential impacts related to biological resources, including potential loss of native trees, wetland habitat, California tiger salamander, California linderella, raptor nesting habitat, special-status plant habitat, and nesting and migratory birds. The *Southwest Area Projects Subsequent EIR* also incorporated by reference specific impacts and mitigation measures identified in the *Southwest Area Plan Master EIR*. The *Southwest Area Projects Subsequent EIR* found that implementation of applicable mitigation measures would reduce potential impacts of individual and collective Southwest Area Projects to a less-than-significant level. The *Southwest Area Projects Subsequent EIR* noted that applicable mitigation measures would be incorporated into the conditions of approval of individual projects and would be implemented during preparation and review of improvement plans and building permits and during construction.

To support the CEQA review and environmental permitting for the 2020 Modified Project, the applicant contracted with a qualified biological resources consulting firm to develop a Biological Resources Analysis for the Project site (Monk & Associates 2019). A copy of the Biological Resources Analysis for the 2020 Modified Project is included as Appendix C. The analysis included review of relevant databases and inventories for historic and recent records of special status plant and animal species known to occur in the Project area. Biologists completed a general survey of the Project site on April 23, 2018 to record biological resources and to assess the likelihood of resource agency regulated areas on the Project site. A delineation of a roadside ditch along Fresno Avenue was completed on July 26, 2018, using criteria prescribed in the Corps' 1987 Wetland Delineation Manual (Corps 1987) and the Corps' Regional Supplement for the Arid West Region (Corps 2008). The Corps confirmed an Aquatic Resources Delineation Map of the roadside ditch (confirmed on December 13, 2018) taking jurisdiction over the feature. Biologists conducted follow-up rare plant surveys on April 4, May 2, May 21, and July 15, 2018 in accordance with guidelines established by the California Department of Fish and Wildlife (CDFG 2000, 2009), USFWS (USFWS 2000), and the inventory guidelines published by the CNPS (CNPS 2001) for assessing the effects of proposed developments on rare and endangered plants and plant communities. All areas within the proposed Project site were examined.

Impact 3.6-1 of the *Southwest Area Projects Subsequent EIR* found that certain projects may result in loss of valley oaks and other native trees. The 2020 Modified Project would include removal of 14 trees from the Project site, including 13 valley oaks (*Quercus lobata*) and one Italian cypress (*Cupressus sempervirens*) (18-inch DBH). Mitigation Measures 3.6-1a from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, requiring replacing trees in accordance with City requirements. Implementation of this applicable mitigation measure would reduce the potential impacts to oak trees to a less-than-significant level, consistent with the findings in the *Southwest Area Projects Subsequent EIR*.

Impact 3.6-2 and 3.6-5 of the *Southwest Area Projects Subsequent EIR* found that certain projects may result in loss of wetland habitat and California linderiella habitat. On March 20, 2002, the former Project applicant applied to the Corps for authorization to fill 0.40-acre of seasonal wetlands on the Project site. On May 6, 2002, the Corps issued a permit and confirmed that the Project qualified for authorization under NWP 29. The applicant re-applied for a Corps permit in 2007, and the Corps re-issued a NWP 29 permit on July 13, 2007 (Corps File No. 26570N). The RWQCB issued a 401 Water Quality Certification for the Project on July 5, 2007 (WDID No. 1B02040WNSO). The Certification authorized impacts to 0.40-acre of seasonal wetlands and 0.046-acre of drainage ditch. In 2007 the site was mass graded, and the wetland was filled. To mitigate for the loss of 0.40-acre of jurisdictional wetlands, the former Project applicant purchased 0.40-acre of wetland creation credits and 0.40-acre of vernal pool preservation credits from the Hale Mitigation Bank.

In 2018, Monk & Associates submitted a Preconstruction Notice requesting the Corps verify the Project meets conditions for use of Nationwide Permit 29 (Residential Development) pursuant to Section 404 of the Clean Water Act. The application pertained to impacts to the roadside ditch which would be filled to complete the road improvements for the 2020 Modified Project. The Corps issued a permit for impacts to the roadside ditch on July 18, 2019 (Corps File Number 2002 - 265700N). The applicant is also in the process of re-applying for Water Quality Certification to impact the roadside ditch. This permit cannot be issued by the RWQCB until the CEQA process is complete. To mitigate the 2020 Modified Project's impacts to 0.046-acre of the roadside ditch, the applicant purchased 0.13-acre of wetland creation credits from the Hazel Mitigation Preserve. Any additional conditions stipulated for wetland impacts by the Corps and RWQCB also would be implemented during construction of the Project. Currently, there are a few shallow topographic low areas on the Project site that were created during the 2007 grading activities which have subsided in some areas. These low areas are regarded as "construction-related" features that are not subject to Corps jurisdiction, as verified by the Corps during the verification site visit on December 13, 2018. The Corps again verified that no regulated wetlands remained on the Project site during a site walk with Monk & Associates, the USFWS (Mr. Vincent Griego), and CDFW (Ms. Melanie Day) on July 10, 2019. Implementation of applicable mitigation measures related to mitigating wetlands in the *Southwest Area Projects Subsequent EIR* has occurred, and the applicant is in the process of obtaining a NCRWQCB 401 Certification for the 2020 Modified Project. Implementation of the mitigation measures, which included purchase of wetland habitat credits in appropriate wetland mitigation banks also provided applicable mitigation for potential impacts to California linderiella habitat, in accordance with the *Southwest Area Projects Subsequent EIR*.

Impacts 3.6-3, 3.6-4, and 3.6-8 of the *Southwest Area Projects Subsequent EIR* found that certain projects may result in impacts to California tiger salamander. The Project site is located in the USFWS' Llano Crescent-Stony

Point Core Area as designated in USFWS' 2016 Santa Rosa Plain Recovery Plan. It is also a parcel known to previously support CTS breeding habitat (Figure 5 in the Santa Rosa Plain Conservation Strategy, USFWS 2005). Three-to-one (replacement habitat to impacted habitat ratio) was acquired for this Project consistent with the requirements for CTS mitigation in the USFWS' 2007 Programmatic Biological Opinion.

On February 14, 2006, the USFWS issued a Biological Opinion (File No. 1-1-06-F-0054) for the Cherry Ranch Project. Prior to the mass grading, as necessary to mitigate the loss of 5.49 acres of CTS habitat on the Project site, the applicant purchased 16.47 acres of CTS mitigation credits from the Christina Preserve to satisfy the 3:1 replacement ratio for impacts to CTS habitat, as required by a previous USFWS' Biological Opinion and the *Southwest Area Projects Subsequent EIR*. In addition, the applicant had purchased mitigation credits from the Southwest Santa Rosa Vernal Pool Preserve Bank (equivalent to 2.4 acres of endangered plant habitat and/or 4.8 acres of CTS habitat) (June 10, 2002). The roadside ditch was included in the CTS habitat acreage, as the APN acreage was used to calculate CTS mitigation requirements. The APN extends to the pavement section of Fresno Avenue. During a Project site walk, Mr. Vincent Griego from the USFWS agreed that the CTS impacts have been fully mitigated. In addition, Mr. Griego stated that the USFWS' previously issued Biological Opinion remains valid today and can be used by the Corps in its current permit authorization. This Biological Opinion provides Federal Endangered Species Act "incidental take" coverage for the proposed Project.

CDFW mitigation requirements for impacts to CTS associated with the proposed Project were originally agreed to by Mr. Carl Wilcox and Mr. Liam Davis of the California Department of Fish and Wildlife. Pursuant to the 2006 USFWS' Biological Opinion for the proposed Project, mitigation for impacts to CTS was fully implemented at a 3:1 replacement to impacts ratio. This 3:1 mitigation ratio is consistent with both CDFW's and USFWS' current policies for mitigating impacts to CTS dispersal habitat. Accordingly, no new mitigation for impacts to CTS are likely to be required by CDFW over that which already purchased for this Project prior to the time it was mass graded in 2007 (Monk 2019).

Implementation of applicable mitigation measures to reduce impacts to California tiger salamander, as identified in the *Southwest Area Projects Subsequent EIR*, has occurred. To obtain California Endangered Species Act (CESA) Incidental Take coverage for the 2020 Modified Project, the applicant will submit the USFWS Biological Opinion to the CDFW and request a "Consistency Determination" to obtain CESA incidental take coverage for the Project.

Impacts 3.6-6 and 3.6-10 of the *Southwest Area Projects Subsequent EIR* found that construction of individual projects within the Southwest Santa Rosa area could result in impacts to raptor nesting habitat and nesting and migratory birds. The 2020 Modified Project would include removal of 14 trees from the site. Mitigation Measures 3.6-1a, 3.6-6a, and 3.6-6b from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, requiring replacing trees in accordance with City requirements, and pre-construction nesting surveys. Implementation of these applicable mitigation measures would reduce the potential impacts to nesting birds to a less-than-significant level, consistent with the findings in the *Southwest Area Projects Subsequent EIR*.

Impacts 3.6-7 of the *Southwest Area Projects Subsequent EIR* found that construction of individual projects within the Southwest Santa Rosa area could result in loss of special-status plant species and special-status plant habitat. Protocol-level surveys were conducted at the Project site on March 5, April 10, April 19, and May 10, 2001, and February 8, March 27, and May 2, 2002, and no endangered plant species were observed. In addition, to update the plant surveys, Monk & Associates conducted follow-up rare plant surveys for the 2020 Modified Project on April 4, May 2, May 21, and July 15, 2018 in accordance with guidelines established by the CDFW, USFWS, and the inventory guidelines published by the California Native Plant Society for assessing the effects of proposed developments on rare and endangered plants and plant communities. No rare plants were ever found during any plant survey conducted on this Project site. However, the 2006 USFWS Biological Opinion for the Project stated that the site previously supported 0.40-acre of potential Sebastopol meadowfoam, Sonoma sunshine, and Burke's goldfields habitat and required mitigation for impacts to "suitable" listed vernal pool plant habitat. To mitigate the loss of 0.40-acre of suitable, but not occupied endangered plant habitat, the applicant purchased 0.40-acre of wetland creation/restoration credits and 0.40-acre of vernal pool preservation credits for Sebastopol meadowfoam from the Hale Mitigation Bank (transferred from WMP LLC) (October 22, 2002), as authorized in the USFWS Biological Opinion. In addition, the applicant purchased mitigation credits from the Southwest Santa Rosa Vernal Pool Preserve Bank (equivalent to 2.4 acres of endangered plant habitat and/or 4.8 acres of CTS habitat) (June 10, 2002). The roadside ditch does not support suitable listed plant habitat (Monk & Associates 2018); therefore, additional mitigation credits for impacts to "suitable" listed plant habitat is not required for the 2020 Modified

Project. The Project site is not known to support rare or endangered plant species. Appropriate rare plant mitigation credits have been purchased to satisfy both CDFW and the USFWS requirements. No additional mitigation is necessary for the 2020 Modified Project.

Impacts 3.6-11 of the *Southwest Area Projects Subsequent EIR* found that construction of individual projects within the Southwest Santa Rosa area could result in increases in erosion within sensitive habitats. Mitigation Measures 3.6-11a from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, requiring implementation of best management practices during construction to protect water quality. Implementation of this mitigation measure would reduce the potential impact to a less-than-significant level, consistent with the findings in the *Southwest Area Projects Subsequent EIR*.

In California, monarch butterflies are included on the California Department of Fish and Wildlife's (CDFW) Terrestrial and Vernal Pool Invertebrates of Conservation Priority list and identified as a Species of Greatest Conservation Need in California's State Wildlife Action Plan. The 2020 Modified Project would not impact monarch butterflies as there is no overwintering habitat on-site. The project site does not include a tight grouping of trees that provides shelter for the monarchs to gather as in a bivouac.

The 2020 Modified Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects to biological resources than previously addressed in the *Southwest Area Projects Subsequent EIR*.

It is also noted that the Appendix G Environmental Checklist Form was modified by the Governor's Office of Planning and Research to include minor revisions to biological resource impact questions after the prior EIR was certified. The changes consist of refinements and clarifications, and the analysis of impacts was adequately considered in the 2019 Biological Resources Analysis and the EIR Addendum as summarized above.

### 3.12.1 Mitigation measures

The following mitigation measures from the *Southwest Area Projects Subsequent EIR* would be applicable to the 2020 Modified Project, reducing potential biological resources impacts to less-than-significant levels. The mitigation measures have been updated as appropriate to address current regulatory requirements and avoid or reduce impacts to at least the same degree as, or to a greater degree than, the original measures.

#### **3.6-1a Replace Trees in Accordance with City Code Chapter 17-24 Trees (as modified in this Addendum)**

All trees impacted by the Project will be replaced in accordance with City Code Chapter 17-24 – Trees, which requires replacement of two 15-gallon trees for each 6 inches, or fraction thereof, of trunk diameter of the tree to be removed. The replacement ratio is subject to change. Native trees shall be replaced with native tree species. Non-native trees may be replaced by either native or non-native tree species. Trees will be replaced onsite where feasible or off-site when approved by the City, or by payment of cash in-lieu of tree replacement, as allowed by City Code Chapter 17-24.

The City Code replacement ratio shall also be implemented for tree removal from the other project sites that contain trees but for which tree surveys have not been completed. Prior to the issuance of a grading permit, a tree replacement plan shall be submitted to and approved by the Santa Rosa ~~Department of Community Development~~ Planning and Economic Development Department. The plan shall identify any heritage trees located on site, and indicate the type and number of trees to be removed, the number of required replacement trees by native or non-native species, and the on-site location of the replacement trees or payment of cash in-lieu of tree replacement as allowed by City Code Chapter 17-24.

#### **3.6-6a Provide Protection of Nesting Raptors and Migratory Birds (as modified in this Addendum)**

To avoid impacts to nesting raptors or passerine birds, pre-construction nesting surveys shall be conducted 15 days prior to commencing with construction work, if this work would commence between February 1 and August 31. The raptor nesting surveys shall include examination of the ruderal habitats on the site where ground nesting raptors could construct a nest. In addition, all trees on and within 300 feet of the project site (not just trees slated for removal) shall be surveyed,

or as determined appropriate by a qualified ornithologist. If nesting birds with eggs or young are found during the surveys, one or more of the following measures may be implemented:

~~Pre-construction surveys will be conducted for nesting raptors within 500 feet of construction activities a minimum of 48 and 24 hours before Project construction activities. Nest searches will be conducted in December/January (if not earlier) before site construction begins and the vegetation within construction area will be removed and/or mowed between August 31 and February 1 to minimize the potential for birds to nest within the construction areas. If nests are found with no eggs or young, the nest will be moved.~~

- An exclusion zone will be established around nests with eggs or young; the need for and size of the exclusion zone is based on factors such as species sensitivity, topography, and proximity to roads and buildings and will be identified by a qualified ornithologist.
- Construction activities in the area will be postponed until young are fledged.
- The Biological Monitor will monitor the birds on the nest and stop construction if it appears that the birds would abandon the nest or young.
- ~~In consultation with CDFG, the nests could be relocated to a nearby area or the eggs or young removed to an approved wildlife rehabilitation center.~~
- Construction activities shall avoid nest sites until an ornithologist determines that the young have fledged, or nesting activity has ceases.

To minimize the potential for birds to nest in the construction area, nest searches can be conducted and tree removal and other vegetation removal can be done between October 1 and February 1. This shall be noted on improvement plans, grading plans, and building plans.

### **3.6-6b Incorporate Pre-construction Survey Requirements into Grading Plans (as modified in this Addendum)**

The public improvement and grading plans shall include the following notes:

1. "The grading contractor shall not begin work until a qualified biologist has conducted a pre-construction survey for nesting raptors within 300 ~~500~~ feet of construction activities ~~a minimum of 48 and 24 hours~~ 15 days before project begins.
2. In the event that nesting birds with eggs or young are found during the surveys, the grading contractor shall suspend all construction activities within the exclusion zone around nests with eggs or young established by the qualified biologist or postpone construction activities in the project area until young are fledged."

### **3.6-11a Protect Water Quality during Construction (as modified in this Addendum)**

To mitigate for construction-related erosion impacts, best management practices for construction will be implemented during and after construction. The applicant and/or its contractor will obtain coverage under State Water Resources Control Board Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities, as amended by Order No. 2012-0006. This will include submittal of permit registration documents (notice of intent, risk assessment, site maps, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and certifications) to the State Water Resources Control Board. The Storm Water Pollution Prevention Plan will address pollutant sources, non-storm water discharges resulting from construction dewatering, best management practices, and other requirements specified in the above-mentioned Order. The Storm Water Pollution Prevention Plan will also include dust control practices to prevent wind erosion, sediment tracking, and dust generation by construction equipment. The SWPPP shall require that all temporary and permanent erosion control measures be free of plastic monofilament netting. A Qualified Storm Water Pollution Prevention Plan Practitioner will oversee implementation of the Plan, including visual inspections, sampling and analysis, and ensuring overall compliance.

~~per the SWPPP developed for each specific project. These measures may include installing silt fences, placing rice straw bales on and directly downslope of exposed soils, and minimizing~~

~~exposed surfaces. Watering or covering stockpiled soils with tarpaulins may also be effective measures, depending on the season of construction. Contractor access will be institutionally controlled and will also be monitored by the on-site biologist (biological monitor), who will be present throughout the construction period.~~

Vehicle refueling and storage of hazardous materials will be prohibited within 200 feet of flagged sensitive plant species or sensitive wildlife habitat features (e.g., raptor nests or burrows) that could be affected by such activities and within 100 feet of wetlands or waters of the U.S. and State that will not be directly impacted by immediate construction activities. The need for this refueling and storage buffer will take into consideration drainage patterns and intervening barriers such as roadways, and will be outlined as part of the SWPPP and Spill Containment and Control Plans to be developed for specific projects. For portable equipment that uses fuels or lubricants, polyethylene or other containment material will be used under the equipment to capture leaks or spills.

## 3.13 Required CEQA Considerations

### 3.13.1 Cumulative Impacts

Cumulative impacts are defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines Section 15355). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The *Southwest Area Projects Subsequent EIR* noted that the summary of projections for assessing cumulative impacts were based on buildout of the Southwest Plan Area. The *Southwest Area Projects Subsequent EIR* identified potential cumulative impacts related to traffic and circulation, utilities and public services, and biological resources. For traffic and circulation, the *Southwest Area Projects Subsequent EIR* identified potential significant cumulative impacts related to buildout of the Southwest Area Projects related to exceeding level of service objectives, increased demand for transit trips, increased demand for bicycle and pedestrian travel, increased parking demands, and construction-related traffic. For utilities and public services, the *Southwest Area Projects Subsequent EIR* identified potential significant cumulative impacts related to buildout of the Southwest Area Projects related to increased demand for water, wastewater treatment, schools, parks, and police, fire, and emergency services. For biological resources, the *Southwest Area Projects Subsequent EIR* identified potential significant cumulative impacts related to California tiger salamander habitat and individuals.

The 2020 Modified Project impacts on traffic, utilities, public services, and biological resources would be reduced to a less-than-significant level with implementation of the applicable mitigation measures identified in the *Southwest Area Projects Subsequent EIR*, as summarized in Sections 3.8, 3.9, and 3.12 of this EIR Addendum. With implementation of the applicable mitigation measures, the 2020 Modified Project’s contribution to cumulative impacts would not be cumulatively considerable, and therefore less than significant. No new potential cumulative impacts not previously addressed in the *Southwest Area Projects Subsequent EIR* would occur as a result of the 2020 Modified Project.

### 3.13.2 Growth-Inducing Impacts

As noted in the *Southwest Area Projects Subsequent EIR*, impacts associated with growth have been analyzed in the *Southwest Area Projects Subsequent EIR*, *Master EIR*, *Redevelopment EIR*, and *General Plan EIR*. Implementation of the Southwest Area Projects is part of an ongoing and coordinated regional planning program that anticipates the demands of projected population growth and accompanying land use changes. The *Southwest Area Projects Subsequent EIR* noted that the Southwest Area Projects would contribute to growth within the context of the General Plan, but it would not generate significant growth-inducing impacts.

As summarized in Sections 3.1 and 3.2 of this EIR Addendum, the 2020 Modified Project would include residential development as envisioned in the Santa Rosa General Plan, the Southwest Santa Rosa Area Plan, and the Southwest Santa Rosa Redevelopment Plan. The 2020 Modified Project is within the southwest area of the City of Santa Rosa within the City limits, urban growth boundary, and sphere of influence boundary. Growth within the urban growth boundary is expected to be consistent with the City’s General Plan to accommodate growth.

General Plan Growth Management Policy GM-A-1 acknowledges that “current projections indicate that there is sufficient land available within the urban growth boundary to accommodate growth needs until 2035.” The Project site is currently designated as Medium-Low Residential by the City of Santa Rosa General Plan 2035, allowing a density of 8 to 13 units per acre. The 2020 Modified Project proposes a density of approximately 9.75 units per acre, which is consistent with the General Plan designation. The 2020 Modified Project does not include any provisions requiring the oversizing of infrastructure facilities to serve growth not anticipated in the General Plan and is not considered substantial unplanned population growth.

### 3.13.3 Significant and Unavoidable Adverse Impacts

Section 15126.2(b) of the State CEQA Guidelines requires an EIR to describe any significant impacts that cannot be mitigated to a less-than-significant level. The *Southwest Area Projects Subsequent EIR* identified significant and unavoidable adverse impacts for the overall buildout of the Southwest Area Projects related to loss of farmland of Local Importance, addition of traffic to US 101, overall increased traffic volumes, changes in visual character, loss of grassland foraging area for sensitive bird species, degradation of air quality levels, and increased traffic noise. With implementation of the applicable mitigation measures, no new significant and unavoidable adverse impacts not previously analyzed in the Southwest Area Projects Subsequent EIR would occur as a result of the 2020 Modified Project.

## 4. References

- City of Santa Rosa. *Southwest Area Plan, A Plan for the Future*. September 6, 1994.
- City of Santa Rosa. *Southwest Santa Rosa Area Plan Final Environmental Impact Report*. April 1994.
- City of Santa Rosa. *Southwest Santa Rosa Redevelopment Plan Final Environmental Impact Report*. May 2000.
- City of Santa Rosa. *Southwest Area Projects Draft Subsequent Environmental Impact Report, Volume I and II*. August 2005.
- City of Santa Rosa. *Southwest Area Projects Final Subsequent Environmental Impact Report*. March 2006.
- City of Santa Rosa. *SB 610 Water Supply Assessment for Santa Rosa General Plan 2035*. November 25, 2008.
- City of Santa Rosa. *Santa Rosa General Plan 2035*. November 3, 2009.
- City of Santa Rosa. *Guidance for the Preparation of Traffic Operational Analysis*. July 2019.
- Tom Origer & Associates. *Cultural Resources Study for the Cherry Ranch Project at 930 Fresno Avenue, Santa Rosa, Sonoma County, California*. October 22, 2019.
- Monk & Associates, Inc. *Biological Resource Analysis, Cherry Ranch, City of Santa Rosa, California, APN: 035-101-004*. October 21, 2019.
- W-Trans. *Updated Focused Traffic Study for the Cherry Ranch Project*. July 8, 2021.
- Civil Design Consultants, Inc. *Initial Storm Water Low Impact Development Submittal for Cherry Ranch*. October 2020.
- Civil Design Consultants, Inc. *Preliminary Drainage Study for Cherry Ranch*. October 2020.

## 5. List of Preparers

### 5.1 City of Santa Rosa

Adam Ross, Senior Planner, Planning & Economic Development

Conor McKay, Senior Planner, Planning & Economic Development

## **5.2 GHD**

Brian Bacciarini, Senior Environmental Scientist

Kristine Gaspar, Senior Environmental Planner

## **5.3 Monk & Associates**

Sarah Lynch, Senior Associate Biologist

# Appendices

# **Appendix A**

## **Conditional Use Permit Plan Set**

# **Appendix B**

**Updated Focused Traffic Study**



July 8, 2021

Mr. Matthew Cappiello  
CRC Development  
364 41<sup>st</sup> Street, 2<sup>nd</sup> Floor  
Oakland, CA 94609

## Updated Focused Traffic Study for the Cherry Ranch Project

Dear Mr. Cappiello;

W-Trans has completed an updated focused analysis that addresses the potential trip generation, parking demand, and access conditions associated with the proposed Cherry Ranch housing project to be located at 930 Fresno Avenue in the City of Santa Rosa.

### Project Description

The proposed project includes construction of 67 single family dwellings on a vacant lot on the east side of Fresno Avenue. The project includes 62 duplex units and five standalone homes. The site would be accessible via three access points on Fresno Avenue, with two new streets built within the site. The site plan includes sidewalk connectivity along the entire frontage with Fresno Avenue as well as the new project streets. The project site plan is enclosed for reference.

### Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10<sup>th</sup> Edition, 2017. Consideration was given to application of rates for "Single Family Detached Housing" (LU #210) to all dwellings; however, all but five units would be attached to another unit duplex-style so this land use was determined not to be a good fit for the duplexes. The ITE description for "Multi-Family Housing (Low-Rise)" (LU #220) was also reviewed, but the description says that this land use should be applied to units located in the same building with at least three other units which would not be the case with the proposed project. Due to the mixed nature and size of the housing units proposed, including both single-family detached homes and duplexes, it was determined that rates for "Residential Planned Unit Development (PUD)" (LU #270) would best represent the project. The ITE description for PUD states, "A residential planned unit development (PUD), for the purposes of trip generation, is defined as containing any combination of residential land uses." Based on application of these rates, the proposed project would be expected to generate an average of 494 trips per day, including 38 a.m. peak hour trips and 46 p.m. peak hour trips. These results are summarized in Table 1.

**Table 1 – Trip Generation Summary**

| Land Use        | Units | Daily |       | AM Peak Hour |       |    |     | PM Peak Hour |       |    |     |
|-----------------|-------|-------|-------|--------------|-------|----|-----|--------------|-------|----|-----|
|                 |       | Rate  | Trips | Rate         | Trips | In | Out | Rate         | Trips | In | Out |
| Residential PUD | 67 du | 7.38  | 494   | 0.57         | 38    | 8  | 30  | 0.69         | 46    | 30 | 16  |

Note: du = dwelling unit

As the project would be expected to generate fewer than 50 peak hour trips, under the City's guidelines an analysis of off-site operational impacts is typically not required, so one has not been prepared.

## Vehicle Miles Traveled

Senate Bill (SB) 743 established a change in the metric to be applied to determining transportation impacts associated with development projects. Rather than the delay-based criteria associated with a Level of Service (LOS) analysis, the change in Vehicle Miles Traveled (VMT) as a result of a project is now the basis for determining impacts with respect to transportation and traffic under the California Environmental Quality Act (CEQA). In establishing their own parameters for VMT analysis, the City relied upon guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018. Although not yet officially adopted, the City's standards are outlined in the *Vehicle Miles Traveled Guidelines Final Draft*, June 2020. Both documents indicate that a residential project generating vehicle travel that is 15 or more percent below the existing countywide average residential VMT per capita may indicate a less than significant VMT impact.

OPR encourages the use of screening maps to establish geographic areas for which the anticipated VMT would be 15 percent below regional average thresholds, allowing jurisdictions to "screen" projects in those areas from quantitative VMT analysis since impacts can be presumed to be less than significant. The City of Santa Rosa's standards for evaluating residential development projects include screening criteria consistent with the OPR guidance, including proximity to high quality transit service and locations where per capita VMT is more than 15 percent below the countywide average value. The Sonoma County Transportation Authority (SCTA) prepared a draft residential screening map for the City of Santa Rosa and the project site is within a screened area so it is therefore reasonable to conclude that the project would have a less-than-significant VMT impact. A copy of the VMT screening map is enclosed with the location of the project site identified on the map.

**Finding** – Based on a draft screening map published by the City of Santa Rosa, which is consistent with OPR guidance, the project is anticipated to result in a less-than-significant transportation impact on VMT.

## Access Analysis

Access to the project site is proposed via three new street connections on the east side of Fresno Avenue. Terrabrook Drive would loop around the project site and intersect Fresno Avenue in two locations. The second project street, called "Street A", would run parallel to Fresno Avenue before bending and intersecting opposite New Zealand Drive. Fresno Avenue would be widened along the project frontage as part of the project, consistent with the City's future plans for the roadway, including a center median, travel lane, bike lane, and separated sidewalk. The project would have three access points which satisfies City Street Design Standards that require projects with more than 50 residential units to provide a secondary access point.

**Finding** – Site access would be expected to operate acceptably.

## Sight Distance

Sight distances along Fresno Avenue at the proposed new intersections were evaluated based on sight distance criteria contained in the *Highway Design Manual, 6<sup>th</sup> Edition* published by Caltrans. The recommended sight distances for minor street approaches to intersections are based on corner sight distance. For the posted 25-mph speed limit on Fresno Avenue, the recommended corner sight distance is 275 feet. Based on a review of the field conditions, sight distances at all of the proposed intersection locations extend more than 300 feet in both directions so are adequate for the posted speed limit. Similarly, sight lines along Fresno Avenue approaching the project access points are more than adequate to allow a following driver to observe and react to a vehicle stopped in the roadway while the driver waits to turn left into the site.

**Finding** – Based on field observations and the project site plan, sight distances along Fresno Avenue are adequate to accommodate all turns into and out of the site.

## On-site Circulation

As proposed, Terrabrook Drive would vary in width from 24 to 36 feet depending on the presence of street parking on one side, both sides, or no street parking. Street A would be 24 feet wide and would have no street parking. All project streets would be wide enough to accommodate two-way traffic as well as emergency response vehicles. The proposed street cross-sections are shown on the enclosed plans.

**Finding** – On-site circulation would be expected to operate acceptably.

## Alternative Modes

Given the proximity of the project site to the transit stops located north of Deuce Drive on Fresno Avenue and west of Fresno Avenue on Sebastopol Road, it is reasonable to assume that some project residents would want to use transit for trips from and to the project site. Continuous sidewalks would be constructed along the site's frontage with Fresno Avenue and along both sides of the new streets to be constructed within the project site. Residents would be able to use the project sidewalks, existing sidewalks on the west side of Fresno Avenue south of Sebastopol Road, and an existing four-foot paved shoulder on the east side of Fresno Avenue to reach the nearest transit stops, which are within an acceptable walking distance from the site of less than one-quarter mile.

The southbound transit stop on Fresno Avenue north of Deuce Drive is on the opposite side of the street as the project so consideration was given to the need for a marked crosswalk and enhanced crossing device on Fresno Avenue near New Zealand Avenue. The *National Cooperative Highway Research Program* (NCHRP) Pedestrian Crossing Treatment Worksheet was completed to help determine what, if any, crossing measures would be warranted at this location. The worksheet recommends pedestrian treatment devices such as Rectangular Rapid Flashing Beacons (RRFBs), In-Roadway Warning Lights (IRWLs), High Visibility markings, and signage depending on pedestrian and vehicle volumes and geometrics of the crosswalk. Based on vehicle volume data collected in August 2018 and with the addition of project-related traffic, a minimum of 20 pedestrian crossings would be needed within a single hour at this location for installation of a marked crosswalk to be warranted. Further, approximately 600 pedestrian crossings would be needed to warrant installation of an enhanced crossing device such as an RRFB or vehicle volumes would need to increase by nearly 600 percent with 20 pedestrian crossings. Given the size of the project, it is unlikely that it would result in 20 crossings. The unmarked condition where pedestrians understand that they must carefully observe oncoming traffic before crossing is therefore considered the best safety option for this specific location as crosswalks can give pedestrians a false sense of security that can result in less safe conditions, especially if the crosswalk is used infrequently. The NCHRP Pedestrian Crossing Treatment Worksheet is enclosed.

In the project vicinity there are existing Class II bicycle lanes in the southbound direction on Fresno Avenue between Sebastopol Road and approximately 150 feet south of New Zealand Avenue, and on Sebastopol Road between approximately 450 feet west of Campoy Street and Fresno Avenue and between Corporate Center Parkway and Avalon Avenue. According to the *Santa Rosa Bicycle and Pedestrian Master Plan*, there are plans to provide Class II bike lanes on Fresno Avenue between New Zealand Avenue and Finley Avenue and on Sebastopol Road between Fresno Avenue and Corporate Center Parkway. The project is consistent with this plan as the planned northbound bike lane on Fresno Avenue would be constructed along the project frontage as part of the project.

**Finding** – Access for pedestrians, bicyclists, and transit riders would be adequate.

**Recommendation** – The project should include construction of a Class II bike lane along the project's frontage on Fresno Avenue, as proposed.

## Parking

Based on the site plan, the proposed project would provide 194 parking spaces, including 89 in garages, 67 in driveways, and 38 on-street spaces. Per Section 20-36.040 of the City of Santa Rosa Zoning Code, single-family attached housing (duplex units) with two or more bedrooms are required to provide one covered space per unit and one and one-half visitor spaces per unit, which may be uncovered. Single family detached homes are required to provide four spaces each, one of which must be covered. Based on application of standard City rates, the project would need to provide a total of 175 parking spaces on-site, 67 of which would need to be covered. With a proposed supply of 194 spaces, including 89 in garages, the project would exceed City requirements. The proposed supply and City requirements are shown in Table 2.

**Table 2 – Parking Summary**

| Land Use                       | Units | Rate         | Parking Spaces |
|--------------------------------|-------|--------------|----------------|
| <b>City Required Parking</b>   |       |              |                |
| Duplex (2+ bedrooms)           | 62 du |              |                |
| Covered Spaces                 |       | 1.0 space/du | 62             |
| Uncovered Visitor Spaces       |       | 1.5 space/du | 93             |
| Single Family Detached Housing | 5 du  |              |                |
| Covered Spaces                 |       | 1.0 space/du | 5              |
| Uncovered Visitor Spaces       |       | 3.0 space/du | 15             |
| <i>Total City Requirements</i> |       |              | <i>175</i>     |
| <b>Proposed Parking Supply</b> |       |              | <b>194</b>     |

Notes: du = dwelling unit

**Finding** – The proposed parking supply would be adequate to satisfy City requirements.

## Bicycle Parking

As proposed, all units would have a garage in which to store their bicycles, therefore additional bicycle storage facilities are not necessary.

**Finding** – Residents would be able to store bicycles in their private garages, so no parking facilities are required.

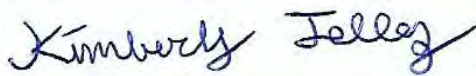
## Conclusions and Recommendations

- The proposed project is expected to generate an average of 494 new daily vehicle trips, including 38 trips during the morning peak hour and 46 trips during the evening peak hour.
- The proposed project is expected to have a less-than-significant transportation impact on VMT.
- Site access via Fresno Ave and the proposed new project streets would be expected to operate adequately.
- Sight distance is adequate at all the proposed access points on Fresno Avenue to accommodate all turns into and out of the site.
- On-site circulation would be expected to operate acceptably as proposed.

- The proposed vehicle and bicycle parking supplies comply with City requirements.
- Access for pedestrians, bicyclists, and transit riders would be adequate. A marked crosswalk would not be warranted on Fresno Avenue and is therefore not recommended.
- The project frontage with Fresno Avenue should include a Class II bike lane in the northbound direction, as proposed. A bike lane is already present in the southbound direction.

We hope this information is adequate to address the potential traffic and parking issues associated with the proposed project. Please contact us if you have any further questions. Thank you for giving us the opportunity to provide these services.

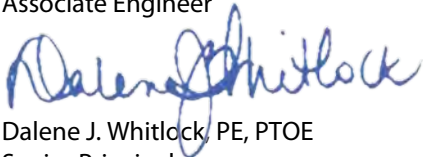
Sincerely,



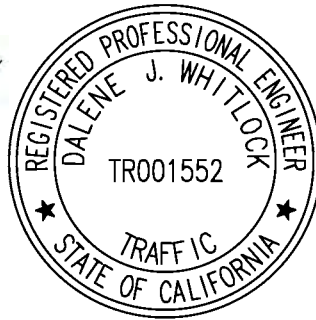
Kimberly Tellez  
Assistant Engineer



Cameron Nye, EIT  
Associate Engineer



Dalene J. Whitlock, PE, PTOE  
Senior Principal

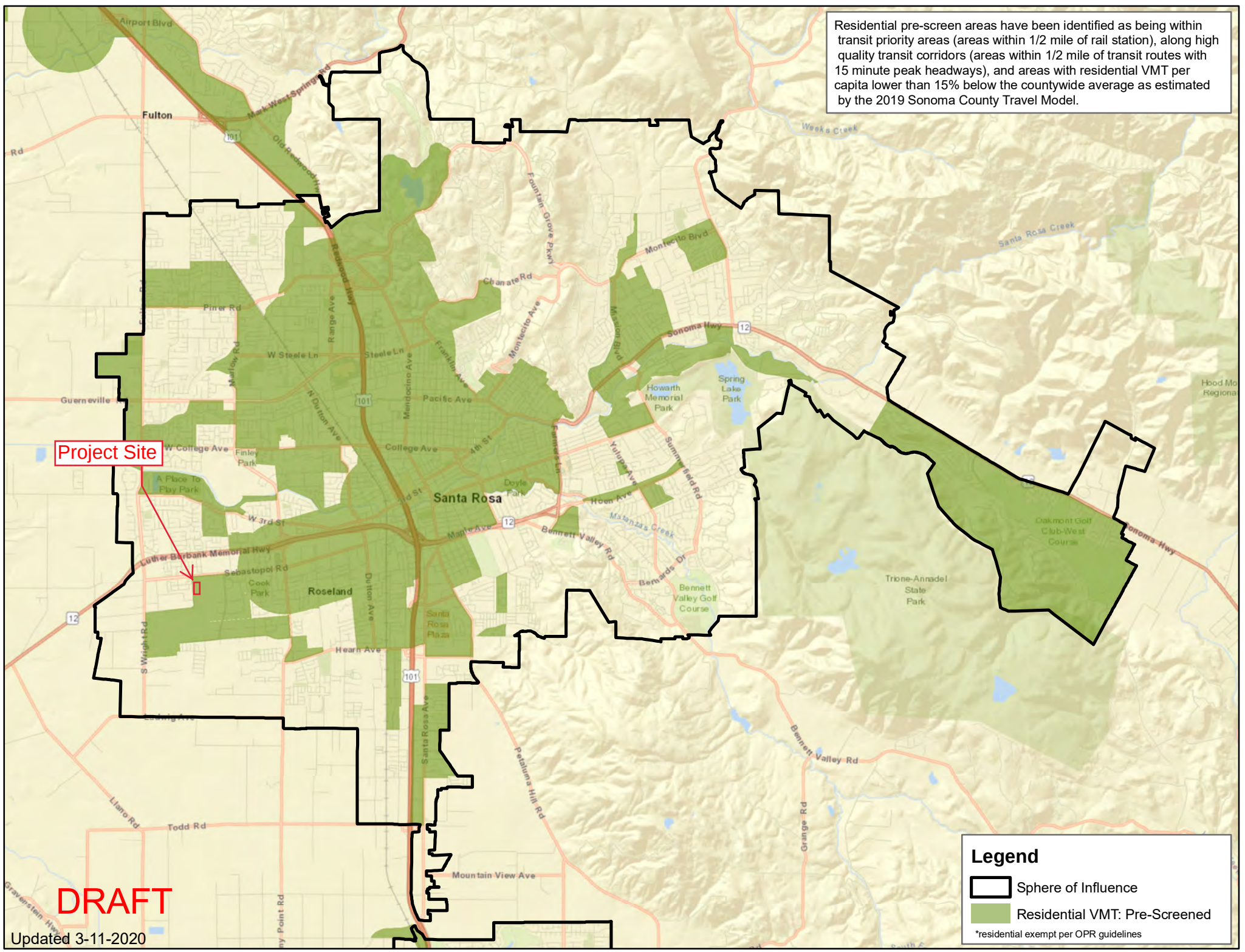


DJW/cjn/kt/SRO478-1.L1

Enclosures: Site Plan, VMT Screening Map, Street Cross-sections, NCHRP Worksheet



Residential pre-screen areas have been identified as being within transit priority areas (areas within 1/2 mile of rail station), along high quality transit corridors (areas within 1/2 mile of transit routes with 15 minute peak headways), and areas with residential VMT per capita lower than 15% below the countywide average as estimated by the 2019 Sonoma County Travel Model.



Project Site

**DRAFT**

Updated 3-11-2020

**Legend**

- Sphere of Influence
- Residential VMT: Pre-Screened

\*residential exempt per OPR guidelines

# CHERRY RANCH

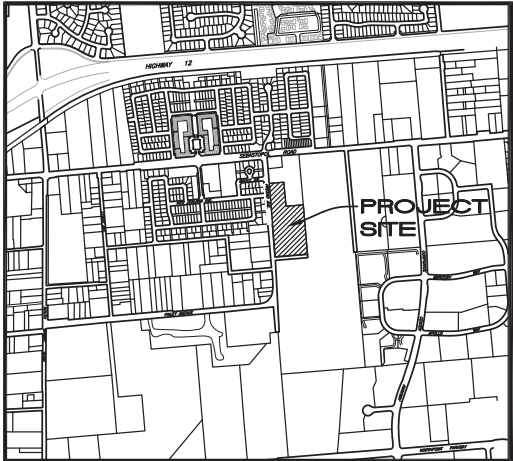
## TENTATIVE MAP

### GENERAL NOTES

- EXISTING AND PROPOSED ZONING IS R-1-6.
- WATER AND SEWER TO BE PROVIDED AND MAINTAINED BY THE CITY OF SANTA ROSA.
- PROPOSED SETBACKS ARE AS SHOWN ON SHEET 2.
- RESIDENTIAL LOT AREAS:  
SMALLEST 1,373 SF (LOT 47)  
LARGEST 30,707 SF (LOT 1)  
AVERAGE 2,914 SF
- ALL GRADING TO BE IN CONFORMANCE WITH CHAPTER 33 AND A33 OF THE CURRENT CALIFORNIA BUILDING CODE, AND THE GEOTECHNICAL ENGINEERING REPORT.
- REMOVE ALL ON-SITE EXISTING FEATURES, INCLUDING STRUCTURES, CONCRETE AND FENCING UNLESS OTHERWISE NOTED ON PLANS.
- THERE ARE NO KNOWN EXISTING LEACHFIELDS OR WELLS ONSITE. IF THEY ARE FOUND, THEY SHALL BE ABANDONED.
- ALL PROPOSED UTILITIES SHALL BE PUBLIC UNLESS OTHERWISE NOTED.
- ALL SUSMP FEATURES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNER
- NO AREAS OF THIS SITE ARE SUBJECT TO INUNDATION. NO HAZARDOUS MATERIALS ARE KNOWN TO EXIST ON THIS SITE.
- SITE SOILS APPEAR SUITABLE FOR RESIDENTIAL DEVELOPMENT.
- STREET TREES SHALL BE PLANTED IN ACCORDANCE WITH THE CITY OF SANTA ROSA REQUIREMENTS WITHIN THE PLANTER STRIPS AND PLANTING WELLS.
- STREET LIGHTING SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF SANTA ROSA STANDARDS.
- SEWER LINE THAT DEVELOPMENT IS TRIBUTARY = HEARN INTERCEPTOR  
EXISTING SEWAGE GENERATION - 0 GALLONS PER DAY  
PROJECTED SEWAGE GENERATION - 0.031 MGD.
- THE PROJECT SITE IS NOT IN A HIGH FIRE SEVERITY ZONE

### ABBREVIATIONS

|       |                             |
|-------|-----------------------------|
| AB    | AGGREGATE BASE              |
| AC    | ASPHALT CONCETE             |
| APN   | ASSESSOR'S PARCEL NUMBER    |
| BO    | BLOWOFF                     |
| BSL   | BUILDING SETBACK LINE       |
| CL    | CENTERLINE OR CLASS         |
| DN    | DOCUMENT NUMBER             |
| EX    | EXISTING                    |
| EG    | EXISTING GRADE              |
| FC    | FACE OF CURB                |
| FG    | FINISHED GRADE              |
| FH    | FIRE HYDRANT                |
| FL    | FLOWLINE                    |
| GB    | GRADE BREAK                 |
| GSL   | GARAGE SETBACK LINE         |
| GV    | GATE VALVE                  |
| HOA   | HOMEOWNERS ASSOCIATION      |
| HP    | HIGH POINT                  |
| IG    | INVERT GRADE                |
| L     | LENGTH                      |
| LAT   | LATERAL                     |
| LL    | LOT LINE                    |
| LO    | LIVE OAK                    |
| LP    | LOW POINT                   |
| NO    | NUMBER                      |
| P     | PARKING                     |
| PED   | PEDESTRIAN                  |
| PL    | PROPERTY LINE               |
| PLNTR | PLANTER                     |
| PUE   | PUBLIC UTILITY EASEMENT     |
| PVT   | PAVEMENT                    |
| R     | RADIUS                      |
| RWD   | REDWOOD                     |
| R/W   | RIGHT OF WAY                |
| SCR   | SONOMA COUNTY RECORDS       |
| SD    | STORM DRAIN                 |
| SDCB  | STORM DRAIN CATCH BASIN     |
| SDDI  | STORM DRAIN DROP INLET      |
| SDE   | PUBLIC STORM DRAIN EASEMENT |
| SDJB  | STORM DRAIN JUNCTION BOX    |
| SDMH  | STORM DRAIN MANHOLE         |
| SS    | SANITARY SEWER              |
| SSCO  | SANITARY SEWER CLEAN OUT    |
| SSMH  | SANITARY SEWER MANHOLE      |
| ST-LT | STREET LIGHT                |
| STD   | STANDARD                    |
| SW    | SIDEWALK                    |
| TC    | TOP OF CURB                 |
| TG    | TOP OF GRATE                |
| TYP   | TYPICAL                     |
| W     | WATER MAIN                  |
| WM    | WATER METER                 |
| WS    | WATER SERVICE               |



LOCATION MAP

### BENCHMARK

CITY OF SANTA ROSA BENCHMARK, NO. E-86. CITY STANDARD WELL MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF SEBASTOPOL ROAD AND CORPORATE CENTER PARKWAY, ELEVATION = 106.658'

### OWNER / DEVELOPER

JOHN COPPIELLO  
CRC DEVELOPMENT, LLC  
P.O. BOX 472230  
SAN FRANCISCO, CA 94147-2230  
(415) 441-7411

### ENGINEER

CIVIL DESIGN CONSULTANTS, INC.  
2200 RANGE AVENUE, SUITE 204  
SANTA ROSA, CA 95403  
(707) 542-4820

### SURVEYOR

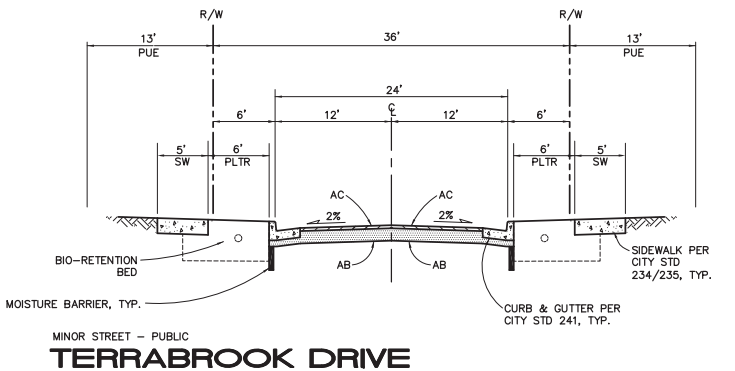
CINQUINI & PASSARINO, INC.  
1360 NORTH DUTTON AVE., STE 150  
SANTA ROSA, CA 95401  
(707) 542-6268

### SHEET INDEX

- COVER SHEET
- TENTATIVE MAP - SITE PLAN
- TENTATIVE MAP - GRADING, DRAINAGE AND UTILITY PLAN
- TENTATIVE MAP - ENLARGED VIEW OF LOT 1

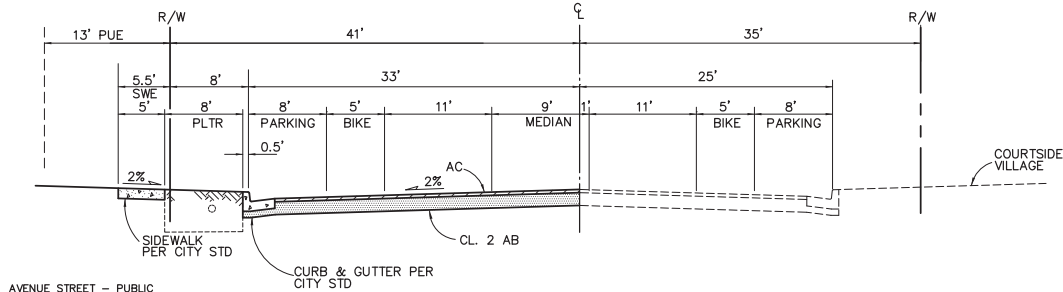
### LEGEND

| EXISTING                | NEW                     |
|-------------------------|-------------------------|
| STREET LIGHT            | STREET LIGHT            |
| SANITARY SEWER          | SANITARY SEWER          |
| SANITARY SEWER LAT.     | SANITARY SEWER LAT.     |
| WATER MAIN & SERVICES   | WATER MAIN & SERVICES   |
| STORM DRAIN SYSTEM      | STORM DRAIN SYSTEM      |
| CURB & GUTTER           | CURB & GUTTER           |
| SIDEWALK                | SIDEWALK                |
| FLOWLINE / SWALE        | FLOWLINE / SWALE        |
| RESIDENTIAL CURB CUT    | RESIDENTIAL CURB CUT    |
| BIO-RETENTION BED       | BIO-RETENTION BED       |
| CURB RAMP               | CURB RAMP               |
| UTILITY BOXES           | UTILITY BOXES           |
| SIGN                    | SIGN                    |
| SIDEWALK BARRICADE      | SIDEWALK BARRICADE      |
| FENCE                   | FENCE                   |
| CONTOURS (1' INTERVALS) | CONTOURS (1' INTERVALS) |
| TREE                    | TREE (TO BE REMOVED)    |



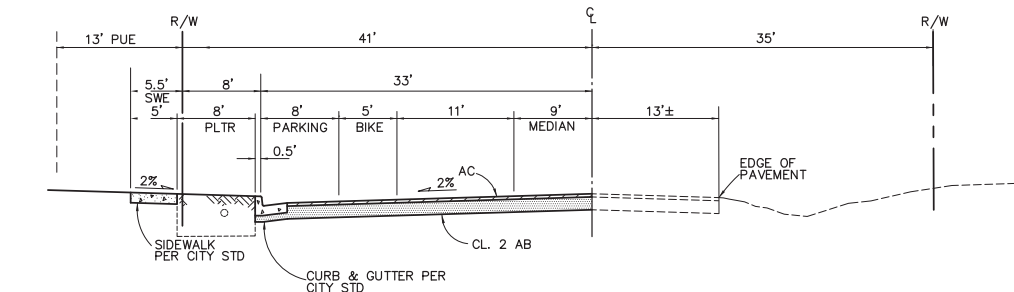
MINOR STREET - PUBLIC  
TERRABROOK DRIVE

NO SCALE



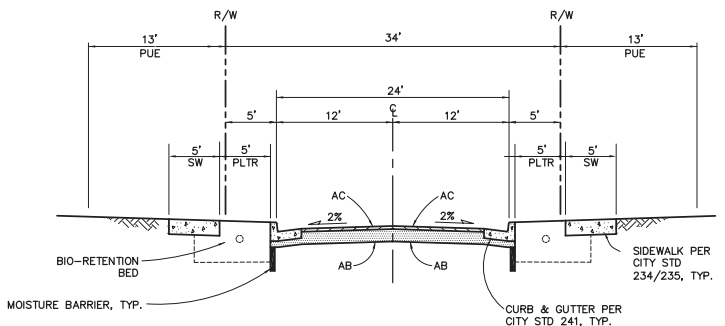
AVENUE STREET - PUBLIC  
FRESNO AVENUE

NORTH  
NO SCALE



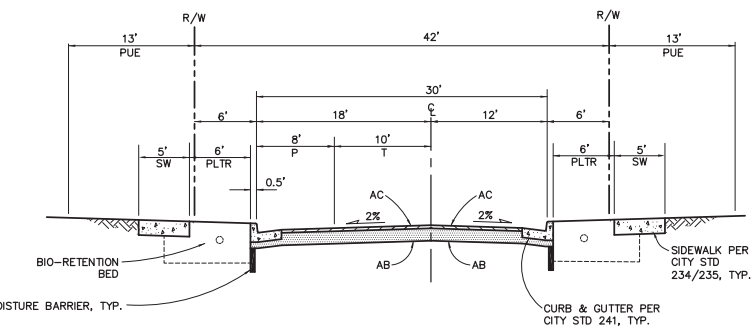
AVENUE - PUBLIC  
FRESNO AVENUE

SOUTH  
NO SCALE



MINOR STREET - PUBLIC  
STREET "A"

NO SCALE



MINOR STREET - PUBLIC  
TERRABROOK DRIVE

PARKING ONE SIDE  
NO SCALE



CIVIL DESIGN CONSULTANTS, INC.

2200 Range Avenue, Suite 204  
Santa Rosa, CA 95403  
(707) 542-4820

COVER SHEET  
CHERRY RANCH

930 FRESNO AVENUE  
SANTA ROSA, CALIFORNIA

SEPTEMBER 2018  
6.87 ACRES  
52 LOTS

JOB NO.  
18-103  
SHEET NO.

1

OF 4 SHEETS

Low Speed NCHRP ( $\leq 35$  mph)

**Project Name:** Focused TIS for the Cherry Ranch Project  
**Jurisdiction:** City of Santa Rosa  
**Crossing:** 1  
**Scenario:** PM Existing + Project  
**Date of Count:** Thursday, August 9, 2018  
**Street Name:** Fresno Avenue at New Zealand Avenue  
**Analyzed by:** W-Trans

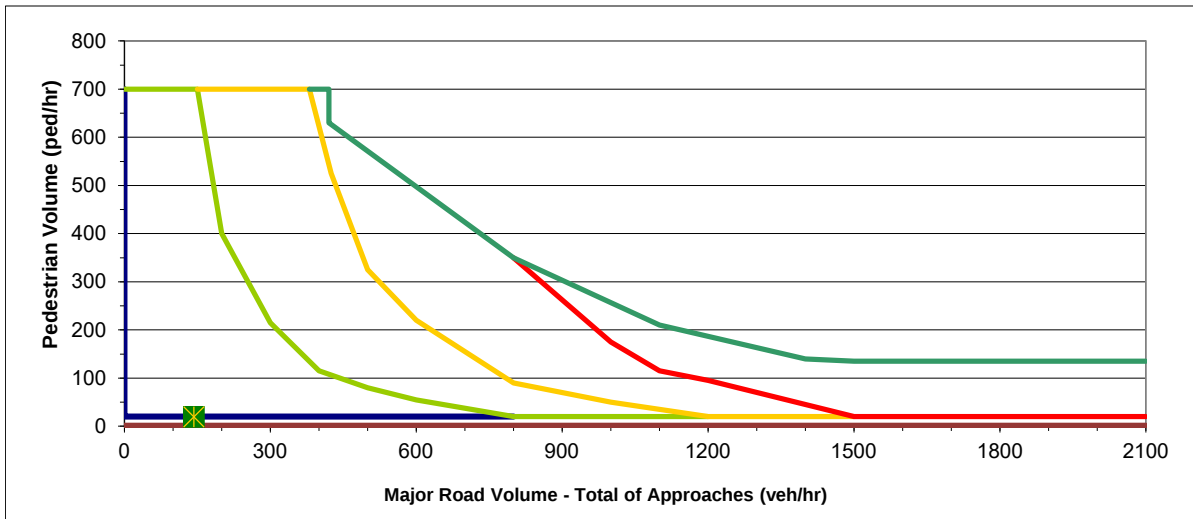
**Speed Limit:** 25 mph  
**Crosswalk Length:** 50 feet  
**Major Street Approach Volume:** 143 VPH  
**Pedestrians Crossing:** 19 PPH  
**Pedestrian Median Island:** No

**Pedestrian Speed:** 3.5 ft/s  
**Pedestrian start-up time and end clearance time:** 3 s  
**Driver Compliance:** Low

**Total pedestrian delay** 0

**Suggested Action** No Improvement Needed

**Road Characteristics:** 50' Wide,  $\leq 35$  mph,  $V_{ped} = 3.5$  ft/s



| Legend: |                                |
|---------|--------------------------------|
|         | Study Intersection             |
|         | Striped Crosswalk              |
|         | Enhanced-High                  |
|         | Red                            |
|         | Enhanced-High                  |
|         | Visibility/Active when Present |
|         | (if high compliance expected)  |
|         | OR Red (if low compliance      |
|         | Signal                         |
|         | No Treatment                   |

| Description of Treatment Types: |                                              |                                  |
|---------------------------------|----------------------------------------------|----------------------------------|
| Red:                            | Enhanced-High Visibility/Active when Present |                                  |
| Midblock Signal                 | Active When Present                          | Enhanced/High Visibility         |
| Half Signal                     | In Roadway Warning                           | In-Street Crossing Signs         |
|                                 | Lights                                       | High Visibility Signs/Markings   |
| HAWK                            | Passive/Pushbutton                           | Pedestrian Refuge Islands        |
|                                 | Flashing Beacons                             | Raised Crosswalks                |
|                                 | Pedestrian Crossing                          | Curb Extensions                  |
|                                 | Flags                                        | Advanced Signage                 |
|                                 | Rapid Rectangular                            | Advanced Stop/Yield Lines        |
|                                 | Flashing Beacons                             | Constant Flashing Yellow Beacons |

# **Appendix C**

## **Biological Resource Analysis**

**BIOLOGICAL RESOURCE ANALYSIS  
CHERRY RANCH  
CITY OF SANTA ROSA, CALIFORNIA  
APNs: 035-101-004**

**October 21, 2019**

**Prepared on Behalf of:**

Cherry Conservation Preserve LLC  
Matthew Cappiello  
364 41st Street  
Oakland, California 94609

**Prepared by**

Monk & Associates, Inc.  
1136 Saranap Avenue, Suite Q  
Walnut Creek, California 94595  
Contact: Mr. Geoff Monk

## TABLE OF CONTENTS

|                                                                         |    |
|-------------------------------------------------------------------------|----|
| 1. INTRODUCTION .....                                                   | 5  |
| 2. PROPOSED PROJECT .....                                               | 5  |
| 3. PROPERTY LOCATION AND SETTING .....                                  | 6  |
| 4. PROJECT SITE HISTORY .....                                           | 6  |
| 5. ANALYSIS METHODS .....                                               | 6  |
| 5.1 Background Research .....                                           | 6  |
| 5.2 Site Investigation .....                                            | 7  |
| 5.3 Wetland Delineation .....                                           | 7  |
| 5.4 Special-Status Plant Surveys .....                                  | 7  |
| 5.5 California Tiger Salamander Surveys .....                           | 8  |
| 6. RESULTS OF RESEARCH AND PROJECT SITE ANALYSES .....                  | 9  |
| 6.1 Topography and Hydrology .....                                      | 9  |
| 6.2 Plant Communities and Associated Wildlife Habitats .....            | 9  |
| 6.2.1 RUDERAL HERBACEOUS HABITAT .....                                  | 9  |
| 6.2.2 CONSTRUCTION-RELATED FEATURES .....                               | 10 |
| 6.2.3 ROADSIDE DITCH LINEAR WETLAND .....                               | 10 |
| 6.3 Wildlife Corridors .....                                            | 11 |
| 7. SPECIAL-STATUS SPECIES DEFINITION .....                              | 12 |
| 7.1 Definitions .....                                                   | 12 |
| 7.2 Potential Special-Status Plant Species on the Project Site .....    | 14 |
| 7.2.1 SONOMA SUNSHINE .....                                             | 14 |
| 7.2.2 BURKE'S GOLDFIELDS .....                                          | 14 |
| 7.2.3 SEBASTOPOL MEADOWFOAM .....                                       | 15 |
| 7.3 Potential Special-Status Wildlife Species on the Project Site ..... | 15 |
| 7.3.1 CALIFORNIA TIGER SALAMANDER .....                                 | 16 |
| 7.3.2 WHITE-TAILED KITE .....                                           | 19 |
| 8. REGULATORY FRAMEWORK FOR NATIVE WILDLIFE, FISH, AND PLANTS .....     | 19 |
| 8.1 Federal Endangered Species Act .....                                | 19 |
| 8.1.1 RESPONSIBLE AGENCY .....                                          | 21 |
| 8.1.2 APPLICABILITY TO THE PROPOSED PROJECT .....                       | 21 |
| 8.2 Federal Migratory Bird Treaty Act .....                             | 23 |
| 8.2.1 APPLICABILITY TO THE PROPOSED PROJECT .....                       | 23 |
| 8.3 California Endangered Species Act .....                             | 23 |
| 8.3.1 SECTION 2081 OF THE CALIFORNIA ENDANGERED SPECIES ACT .....       | 23 |
| 8.3.2 APPLICABILITY TO THE PROPOSED PROJECT .....                       | 25 |
| 8.4 California Fish and Game Code § 3503, 3503.5, 3511, and 3513 .....  | 26 |
| 8.4.1 APPLICABILITY TO THE PROPOSED PROJECT .....                       | 26 |
| 8.5 Santa Rosa Plain Conservation Strategy (USFWS 2005) .....           | 27 |
| 8.5.1 APPLICABILITY TO THE PROPOSED PROJECT .....                       | 28 |
| 8.6 Santa Rosa Plain Programmatic Biological Opinion (USFWS 2007) ..... | 28 |
| 8.6.1 APPLICABILITY TO THE PROPOSED PROJECT .....                       | 30 |
| 8.7 USFWS Recovery Plan for the Santa Rosa Plain (USFWS 2016) .....     | 31 |
| 8.7.1 APPLICABILITY TO THE PROPOSED PROJECT .....                       | 32 |
| 9. CITY OF SANTA ROSA TREE ORDINANCE .....                              | 33 |

Biological Resources Analysis  
 Cherry Ranch Project  
 Santa Rosa, California

|                                                                                                                                                           |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| 9.1.2 APPLICABILITY TO THE PROPOSED PROJECT .....                                                                                                         | 36 |
| 10. REGULATORY REQUIREMENTS PERTAINING TO WATERS OF THE UNITED STATES AND STATE.....                                                                      | 36 |
| 10.1 Section 404 of the Clean Water Act.....                                                                                                              | 36 |
| 10.1.1 PERMITTING CORPS JURISDICTIONAL AREAS .....                                                                                                        | 37 |
| 10.1.2 APPLICABILITY TO THE PROPOSED PROJECT .....                                                                                                        | 39 |
| 10.2 Section 401 of the Clean Water Act.....                                                                                                              | 40 |
| 10.2.1 APPLICABILITY TO THE PROPOSED PROJECT .....                                                                                                        | 40 |
| 10.3 Porter-Cologne Water Quality Control Act .....                                                                                                       | 41 |
| 10.3.1 APPLICABILITY TO THE PROPOSED PROJECT .....                                                                                                        | 42 |
| 10.4 California Department of Fish and Wildlife Protections.....                                                                                          | 42 |
| 10.4.1 SECTION 1602 OF CALIFORNIA FISH AND GAME CODE.....                                                                                                 | 42 |
| 10.4.2 APPLICABILITY TO THE PROPOSED PROJECT .....                                                                                                        | 43 |
| 11. STATE WATER RESOURCES CONTROL BOARD (SWRCB)/RWQCB – STORM WATER MANAGEMENT .....                                                                      | 43 |
| 11.1 Construction General Permit.....                                                                                                                     | 43 |
| 11.1.1 APPLICABILITY TO THE PROPOSED PROJECT .....                                                                                                        | 45 |
| 12. STORM WATER LOW IMPACT DEVELOPMENT (SWLID).....                                                                                                       | 45 |
| 12.1 Projects That Trigger Requirements .....                                                                                                             | 46 |
| 12.1.1 APPLICABILITY TO THE PROPOSED PROJECT .....                                                                                                        | 47 |
| 13. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REGULATIONS.....                                                                                          | 47 |
| 13.1.1 APPLICABILITY TO THE PROPOSED PROJECT .....                                                                                                        | 48 |
| 14. IMPACTS ANALYSIS .....                                                                                                                                | 48 |
| 14.1 Significance Criteria .....                                                                                                                          | 48 |
| 14.1.1 THRESHOLDS OF SIGNIFICANCE .....                                                                                                                   | 49 |
| 15. IMPACT ASSESSMENT AND PROPOSED MITIGATION .....                                                                                                       | 50 |
| 15.1 Impact BIO-1. Development of the project would have a significant adverse impact on suitable rare plant habitat (Significant) .....                  | 50 |
| 15.2 Mitigation Measure BIO-1. Impacts to suitable rare plant habitat.....                                                                                | 50 |
| 15.3 Impact BIO-2. Development of the project would have a significant adverse impact on CTS (Significant).....                                           | 51 |
| 15.4 Mitigation Measure BIO-2. Impacts to CTS .....                                                                                                       | 51 |
| 15.5 Impact BIO-3. Development of the project would have a potentially significant adverse impact on tree nesting raptors (Potentially Significant) ..... | 52 |
| 15.6 Mitigation Measure BIO-3. Tree Nesting Raptors .....                                                                                                 | 52 |
| 15.7 Impact BIO-4. Development of the project would have a potentially significant adverse impact on common nesting birds (Potentially Significant) ..... | 53 |
| 15.8 Mitigation Measure BIO-4. Nesting Passerine Birds .....                                                                                              | 53 |
| 15.9 Impact BIO-5. Development of the project would have a potentially significant adverse impact on protected trees (Significant) .....                  | 54 |
| 15.10 Mitigation Measure BIO-5. Protected Trees .....                                                                                                     | 54 |
| 15.11 Impact BIO-6. The Development Project Would Have a Significant Impact on Waters of the United States and/or State (Significant).....                | 54 |
| 15.12 Mitigation Measure BIO-6. Impacts to Waters of the United States and/or State .....                                                                 | 55 |
| 16. LITERATURE CITED .....                                                                                                                                | 56 |

**FIGURES**  
(At Back of Report)

Figure 1. Regional Location of the Cherry Ranch Project Site.

Figure 2. Cherry Ranch Project Site Location.

Figure 3. Aerial Photograph of the Cherry Ranch Project Site.

Figure 4. Known CNDDB Records for Special-Status Species Within 3 Miles of the Cherry Ranch Project Site.

Figure 5. *Blennosperma bakeri* Core and Management Areas (USFWS 2016) in the Vicinity of the Cherry Ranch Project Site.

Figure 6. *Lasthenia burkei* Core and Management Areas (USFWS 2016) in the Vicinity of the Cherry Ranch Project Site.

Figure 7. *Limnanthes vinculans* Core and Management Areas (USFWS 2016) in the Vicinity of the Cherry Ranch Project Site.

Figure 8. USFWS Critical Habitat in the Vicinity of the Cherry Ranch Project Site.

Figure 9. Santa Rosa Plain California Tiger Salamander Core and Management Areas (USFWS 2016) in the Vicinity of the Cherry Ranch Project Site.

**TABLES**  
(At Back of Report)

Table 1. Plant Species Observed on the Cherry Ranch Project Site.

Table 2. Wildlife Species Observed on the Cherry Ranch Project Site.

Table 3. Special-Status Plant Species Known to Occur Within 3 Miles of the Cherry Ranch Project Site.

Table 4. Special-Status Wildlife Species Known to Occur Within 3 Miles of the Cherry Ranch Project Site.

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

**ATTACHMENTS**  
(At Back of Report)

Attachment A. Cherry Ranch Development Plan prepared by Cinquini & Passarino.

Attachment B. USFWS Biological Opinion, dated February 14, 2006 (File No. 1-1-06-F-0054).

Attachment C. Historic Aerial Photographs of the Cherry Ranch Project Site.

Attachment D. Jurisdictional Wetland Map and Corps jurisdictional determination letter dated March 2002.

Attachment E. Revised Wetland Delineation for Cherry Ranch.

Attachment F. Aquatic Resources Delineation Map prepared by Monk & Associates dated June 2018 (Corps-Confirmed December 2018).

Attachment G. *Report on California Tiger Salamander Surveys, Cherry Ranch Property* prepared by Michael Fawcett, Ph.D. dated June 13, 2002.

## 1. INTRODUCTION

Monk & Associates, Inc. (M&A) prepared this *Biological Resources Analysis* for the proposed Cherry Ranch Project located at 930 Fresno Avenue in the City of Santa Rosa, California (Figures 1 and 2). The purpose of our analysis is to provide a description of existing biological resources within the proposed development site (hereinafter the project site) and to identify significant or potentially significant impacts that could occur to sensitive biological resources from development of this project site and associated infrastructure.

Biological resources include common plant and animal species, and special-status plants and animals as designated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), National Marine Fisheries Service (NMFS), and other resource organizations including the California Native Plant Society (CNPS). Biological resources also include waters of the U.S. and State, as regulated by the U.S. Army Corps of Engineers (Corps), California Regional Water Quality Control Board (RWQCB), and CDFW.

In this analysis, we present the state, federal, and local regulations that would be relevant to impacts to sensitive biological resources. This *Biological Resources Analysis* also provides mitigation measures for “significant” and “potentially significant” impacts that could occur to biological resources if the project site is developed. Whenever possible, upon implementation, the prescribed mitigation measures would reduce impacts to levels considered less than significant pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code §§ 21000 et seq.; 14 Cal. Code Regulations §§ 15000 et seq). Accordingly, this report is suitable for review and inclusion in any review being conducted by the City of Santa Rosa for the proposed project site pursuant to the CEQA.

## 2. PROPOSED PROJECT

The Cherry Ranch project was fully approved in 2007 but development was halted owing to the Great Recession. This project is again moving forward. The 930 Fresno Avenue, Santa Rosa project, referred to as the Cherry Ranch Project, has been planned as a mixed-use project with a total of 81 residences (Attachment A). There are 29 “type-A” units that are one-story single-family residences, plus garage space each. The type-A units are situated around the perimeter of the single-family residence area of the development. There are also 20 “type-B” units that are two-story town home single-family residences, plus garage space each. These type-B units are situated in the center of the single-family residence area of the development. Finally, there are 32 apartment units in building clusters situated at the northern end of the project site. Twenty-four of these two-bedroom apartment units are in three-story buildings with two floors of living area, plus the garage space. The remaining 8 two-bedroom units are two stories with grade level parking.

There will be roads within the development to allow access to the parking areas and to provide access for fire department equipment. There are 150 parking spaces planned for the project. The City of Santa Rosa is requiring that the applicant widen Fresno Avenue along the property boundary and incorporate road improvements, such as curb and gutter along Fresno Avenue, as part of the Cherry Ranch Project. These road improvements will impact Corps’ jurisdictional

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

area that was not formally permitted by the Corps in its prior 2002 and 2007 permit authorizations. The applicant will also be creating landscaping berms along that frontage.

### **3. PROPERTY LOCATION AND SETTING**

The 6.63-acre project site is located at 930 Fresno Avenue in the City of Santa Rosa, California (Figures 1 and 2). The project site is immediately east of Fresno Avenue, a relatively well-used road that provides access to the site. The project site is bordered to the south and east by the Santa Rosa Air Center. To the north there are several private residences and a small open lot, and private residences occur to the west of Fresno Avenue. The project site formerly supported a barn that was removed in 2017 (based on Google Earth images). The project site currently supports routinely disturbed anthropogenic habitats. Figure 3 provides an aerial photograph of the project site showing the land use of the site and the surrounding area.

### **4. PROJECT SITE HISTORY**

On March 20, 2002, the former applicant submitted an application to the Corps for authorization to fill 0.40-acre of seasonal wetlands on the project site to construct the Cherry Ranch residential development. On May 6, 2002, the Corps issued a permit and confirmed that the project qualified for authorization under Nationwide Permit (NWP) Number 29. The applicant re-applied for a Corps permit in 2007, and the Corps re-issued a NWP 29 permit on July 13, 2007 (Corps File No. 26570N). The RWQCB issued a 401 Water Quality Certification on July 5, 2007 (WDID No. 1B02040WNSO). The USFWS issued a Biological Opinion (File No. 1-1-06-F-0054) on February 14, 2006 (Attachment B).

The fully approved project was mass graded in 2007. In compliance with the conditions in a permit issued by the Corps, the applicant submitted a Certificate of Compliance to the Corps on December 17, 2007. Aerial photographs in Attachment C illustrate the project site's wetland conditions in 2005 prior to any site grading. This aerial photograph clearly shows wetland pools to the northeast of the project site and two relatively small wetlands on the project site. Attachment C also includes a 2018 aerial photograph where the wetland pools to the northeast of the project site are still apparent, but there are no visible wetlands on the project site. The wetlands that were previously mapped on the project site had been graded and otherwise "filled" during the mass grading in 2007. The project site has been subjected to routine disturbance on an annual basis after it was graded in 2007.

### **5. ANALYSIS METHODS**

#### **5.1 Background Research**

Prior to preparing this biological resource analysis report, M&A researched the most recent version of CDFW's Natural Diversity Database (CNDDDB 2019) for historic and recent records of special-status plant and animal species (that is, threatened, endangered, rare) known to occur in the region of the project site. M&A also searched the 2018 electronic version of the CNPS' *Inventory of Rare and Endangered Plants of California* (CNPS 2001) for records of special-status plants known in the region of the project site. M&A examined all known record locations for special-status species to determine if special-status species could occur on the project site or

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

within a zone of influence. All special-status plant and wildlife species records known to occur within 3 miles of the project site were compiled into tables.

## **5.2 Site Investigation**

M&A biologists, Mr. Geoff Monk and Ms. Hope Kingma, conducted a general survey of the project site on April 23, 2018 to record biological resources and to assess the likelihood of resource agency regulated areas on the project site. The survey involved searching all habitats on the site and recording all plant and wildlife species observed. All plant and wildlife species observed on the project site are compiled in Tables 1 and 2, respectively. M&A cross-referenced the habitats found on the project site against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species.

## **5.3 Wetland Delineation**

On March 7, 2002, the Corps confirmed the extent of its jurisdiction pursuant to the Clean Water Act on the project site (Corps File No. 26570N). The Corps verified that the project site supported 0.40-acre of seasonal wetlands. The Corps-stamped jurisdictional map is dated March 7, 2002 (Attachment D). The Revised Wetland Delineation map for Cherry Ranch (Attachment E) shows the roadside ditch and indicates that the ditch was inspected by the Corps on November 20, 2006.

M&A conducted a delineation of the roadside ditch on July 26, 2018, using criteria prescribed in the Corps' 1987 Wetland Delineation Manual (Corps 1987) and the Corps' Regional Supplement for the Arid West Region (Corps 2008). The Corps-confirmed an Aquatic Resources Delineation Map of the roadside ditch (confirmed on December 13, 2018) taking jurisdiction over this feature (Attachment F).

## **5.4 Special-Status Plant Surveys**

Protocol-level surveys were conducted at the project site on March 5, April 10, April 19, and May 10, 2001, and February 8, March 27, and May 2, 2002, and no endangered plant species were observed. In 2007 the project site was mass graded with all applicable permits. Due to the great recession, the development project went on hold. The project site thereafter reverted to a ruderal herbaceous habitat. In addition, to update the plant surveys, M&A conducted follow-up rare plant surveys on April 4, May 2, May 21, and July 15, 2018 in accordance with guidelines established by the California Department of Fish and Wildlife (CDFG 2000, 2009), USFWS (USFWS 2000), and the inventory guidelines published by the CNPS (CNPS 2001) for assessing the effects of proposed developments on rare and endangered plants and plant communities.

These guidelines state that special-status plant surveys should be conducted at the proper time of year when special-status and locally significant plants are both evident and identifiable. The guidelines also state that the surveys be floristic in nature with every plant observed identified to species, subspecies, or variety as necessary to determine their rarity status. Finally, these surveys must be conducted in a manner that is consistent with conservation ethics and accepted plant collection and documentation techniques. Following these guidelines, surveys were and will be conducted during the months when special-status plant species from the region are known to be

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

evident and flowering well in advance of any ground-disturbing activities where suitable habitat is present. This may entail repeated floristic surveys to observe all the potential target species during the appropriate floristic period(s).

All areas within the proposed project site were examined by walking transects through potential habitat, and by closely examining any existing microhabitats that could potentially support special-status plants. All plants were identified to the level needed to determine whether they qualify as special-status plants. A list of all vascular plant taxa encountered within the project site was recorded in the field. Plants that needed further evaluation were collected and keyed in the lab. Final determinations for collected plants were made by keying specimens using standard references such as *The Jepson Manual* (Baldwin 2012). ***No rare plants have ever been found during any plant survey conducted on this project site.***

### 5.5 California Tiger Salamander Surveys

California tiger salamander (*Ambystoma californiense*) (CTS) surveys were conducted during the months of December 2001 through February 7, 2002. During surveys conducted on February 7 and 8, 2002, Dr. Fawcett observed more than 20 CTS larvae in a pool on the project site. A copy of the *Report on California Tiger Salamander Surveys, Cherry Ranch Property* prepared by Dr. Fawcett, dated June 13, 2002, is provided as Attachment G.

Due to the confirmed presence of CTS the project site, no additional site surveys were conducted. As the CTS was only a designated species of special concern in the first half of 2002, mitigation requirements were discussed with Mr. Carl Wilcox and Mr. Liam Davis of the California Department of Fish and Game (CDFG) which is now CDFW. Based agreements with CDFG, the Corps issued a NWP 29 in May of 2002 authorizing the fill of 0.40-acre of wetland at the site, provided mitigation was provided for wetland and CTS impacts.

Having obtained all the necessary resource agency permits and having purchased both wetland, rare plant and CTS mitigation credits as required by the Corps and CDFG, the project was poised to proceed with development when the USFWS emergency listed the CTS as endangered on July 22, 2002. The USFWS formalized the listing of the Sonoma County "Distinct Population Segment" (DPS) of the CTS as endangered on March 19, 2003 (USFWS 2003). The emergency listing of the CTS caused a re-evaluation of the mitigation and also resulted in requirement for a CTS salvage operation that was subsequently conducted in 2004/2005 under the guidance of the USFWS and the CDFG. The USFWS issued a Biological Opinion (BO) (File No. 1-1-06-F-0054) to the Corps on February 14, 2006 (Attachment B). As required in that BO additional CTS salvage was required over the winter and spring of 2005/2006. This second salvage effort was to be completed prior to mass grading of the project site. Under the guidance of the USFWS and the CDFG, CTS larvae were collected from the on-site breeding pool using dip-nets and funnel traps and re-located to the Todd Road Preserve.

## 6. RESULTS OF RESEARCH AND PROJECT SITE ANALYSES

### 6.1 Topography and Hydrology

The project site is relatively flat with slight undulating topography. The project site was graded in 2007 per authorized permits from the City of Santa Rosa, Corps, RWQCB, and USFWS. All wetlands previously mapped on the project site were filled.

Currently, there are a few subsided low topographic low areas on the project site that have developed since the site was mass graded in 2007. These low areas are regarded as “construction-related” features that are not subject to Corps jurisdiction, as verified by the Corps during the site verification project site visit on December 13, 2018. The Corps (Mr. Will Connor and Mr. Bert Ho) again verified that no regulated wetlands remained on the project site during a site walk with M&A (Mr. Geoff Monk and Ms. Hope Kingma), the USFWS (Mr. Vincent Griego), and CDFW (Ms. Melanie Day) on July 10, 2019.

### 6.2 Plant Communities and Associated Wildlife Habitats

A complete list of plant species observed on the project site is presented in Table 1. Nomenclature used for plant names follows *The Jepson Manual* Second Edition (Baldwin 2012) and changes made to this manual as published on the Jepson Interchange Project website (<http://ucjeps.berkeley.edu/interchange/index.html>). Table 2 is a list of wildlife species observed on the project site. Nomenclature for wildlife follows CDFW’s *Complete list of amphibian, reptile, bird, and mammal species in California* (2016) and any changes made to species nomenclature as published in scientific journals since the publication of CDFW’s list.

The plant communities found onsite are primarily ruderal herbaceous habitats that developed after the site was mass graded in 2007. Ruderal communities are a result of human influence and disturbance to the natural environment. Below we discuss the plant communities found on the project site.

#### 6.2.1 RUDERAL HERBACEOUS HABITAT

Ruderal (weedy) communities are assemblages of plants that thrive in waste areas, intensively maintained urban and agrarian landscapes and other sites that have been disturbed by human activity. Ruderal herbaceous species are often associated where undesirable or competitive vegetation is frequently suppressed by mowing, disking, and/or spraying during the growing season.

A ruderal herbaceous community comprises the majority of the project site. Some of the non-native grass dominants found on the project site include Harding grass (*Phalaris aquatica*), wild oats (*Avena barbata*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), Italian ryegrass (*Festuca perennis*), brome fescue (*Festuca bromoides*), silver European hairgrass (*Aira caryophylla*), and Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*). Common non-native forbs found on the project site include perennial pepperweed (*Lepidium latifolium*), subterranean clover (*Trifolium subterraneum*), Queen Ann’s lace (*Daucus carota*), rough cat’s ear (*Hypochaeris radicata*), Chicory (*Cichorium intybus*), bristly ox tongue (*Helminthotheca echinoides*), as well as filarees (*Erodium botrys*, *E. cicutarium* and *E. moschatum*), vetches (*Vicia*

*sativa* and *V. benghalensis*), and clovers (*Trifolium subterraneum*, *Trifolium dubium*, *Trifolium fragiferum* and *Trifolium hirtum*). Due to past grading disturbance, very few native, herbaceous taxa remain on the project site. The few native plant species found in the ruderal community include California poppy (*Eschscholzia californica*), Spanish clover (*Acmispon americanus* ssp. *americanus*), willow herb (*Epilobium brachycarpum*), bicolored lupine (*Lupinus bicolor*), sun cups (*Taraxia ovata*), Secund bluegrass (*Poa secunda*), California brome (*Bromus carinatus*), and California buttercup (*Ranunculus californicus* var. *californicus*).

Typically, ruderal communities provide habitat for those animal species adapted to man. Wildlife species observed on the project include American crow (*Corvus brachyrhynchos*), violet-green swallow (*Tachycineta thalassina*), white-breasted nuthatch (*Sitta carolinensis*), Nuttall's woodpecker (*Picoides nuttallii*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), California towhee (*Pipilo crissalis*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), house finch (*Haemorhous mexicanus*), western fence lizard (*Sceloporus occidentalis*), and Botta's pocket gopher (*Thomomys bottae*), among others.

#### 6.2.2 CONSTRUCTION-RELATED FEATURES

A few topographic low areas occur in the southern portion of the project site that developed as result of project site grading in 2007 (Sheet 1). Settling and imperfect grading allowed small depressions to form after grading or were created when grading did not fill all the way to the property boundary. The graded building site is now higher than surrounding adjacent property topography, and thus rain water now pools where the constructed toe extends imperfectly to the eastern and southern property boundaries. Several topographic low areas primarily along the property boundaries are dominated by a mix of native and non-native hydrophytic (wetland) plant species including annual semaphore grass (*Pleuropogon californicus*), spiny buttercup (*Ranunculus muricatus*), low buttercup (*Ranunculus pusillus*), purslane speedwell (*Veronica peregrina* ssp. *xalapensis*), lesser hawkbit (*Leontodon saxatilis*), nodding clover (*Trifolium cernuum*), smooth boisduvalia (*Epilobium campestre*), chaffweed (*Lysimachia minima*), and common frog-fruit (*Phyla nodiflora*). Other associated species observed within the construction-related features include bracted popcornflower (*Plagiobothrys bracteatus*), smooth goldfields (*Lasthenia glaberrima*), pennyroyal (*Mentha pulegium*), spikerush (*Eleocharis macrostachya*), poverty rush (*Juncus tenuis*), spotted-throat downingia (*Downingia concolor* var. *concolor*), small quaking grass (*Briza minor*), Mediterranean barley, and meadow barley (*Hordeum brachyantherum*).

There is one construction-related feature along the southern boundary of the project site which is primarily dominated by curly dock (*Rumex crispus*), manna grass (*Glyceria declinata*), velvet grass (*Holcus lanatus*), creeping wildrye (*Elymus triticoides*), and Italian ryegrass as well as a few patches of Himalayan blackberry (*Rubus armeniacus*). Examples of animals associated with these construction-related features include black phoebe (*Sayornis nigricans*) and Sierran treefrog (*Pseudacris sierra*).

#### 6.2.3 ROADSIDE DITCH LINEAR WETLAND

Linear wetlands are topographic features that convey stormwater flows. In the Santa Rosa Plain, linear wetlands are typically dry in the summer and fall months, but with winter rains become

saturated and/or inundated and convey/hold water for a period of several weeks to months at a time depending upon storm frequency and residence time of flows. Such areas eventually are dominated by hydrophytic plant species (e.g. wetland plants) and otherwise persist as “ditch like” seasonal wetlands.

There is a roadside ditch along the east side of Fresno Avenue that collects rain water on the western project site boundary. It flows intermittently south to north in the winter months. This roadside ditch is dominated by a mix of native and non-native hydrophytic (wetland) plant species that includes common rush (*Juncus patens*), Mediterranean barley, meadow barley, semaphore grass, manna grass, spikerush, hyssop loosestrife (*Lythrum hyssopifolia*), Italian ryegrass, red sand spurrey (*Spergularia rubra*), tall flatsedge (*Cyperus eragrostis*), iris-leaved rush (*Juncus xiphioides*), dock (*Rumex crispus* and *R. pulcher*), English plantain (*Plantago lanceolata*), and annual beard grass (*Polypogon monspeliensis*), as well as native and non-native upland plant species including slender oats, Harding grass, ripgut brome, bristly ox-tongue, Spanish clover, vetch, wild carrot (*Daucus carota*), chicory, fescues (*Festuca myuros* and *F. bromoides*), and cleavers (*Galium aparine*).

### 6.3 Wildlife Corridors

Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by urbanization and other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats from which populations have been locally extirpated (Beier and Loe 1992). All three of these functions can be met if both regional and local wildlife corridors are accessible to wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, dispersing, immigrating, and emigrating wildlife populations. Local wildlife corridors also provide access routes to food, cover, and water resources within restricted habitats.

The proposed project will not interfere with the movement of native wildlife. It does not support a regionally or locally significant wildlife corridor. As illustrated in Figure 2, the project site is surrounded by development to the west and north, and the Santa Rosa Air Center to the south and east. Wildlife species that are not adapted to living in close quarters with humans would not use the project site as a corridor between other open spaces. For example, any animals using the old Santa Rosa Air Center could only cross the project site into dense housing. Thus, the utility of the project site as a corridor is limited to those species that are interested in urban housing areas. Typically, striped skunks (*Mephitis mephitis*), Virginia opossums (*Didelphis virginiana*), and feral cats (*Felis catus*) are likely the only animals that make use of local wildlife corridors that lead to dense urban housing. Since the project site is completely enclosed by a tall chain-link fence, it is unlikely that the project site provides a wildlife corridor to provide access from or to other properties. *Thus, M&A concludes that the construction of the proposed project would not result in significant adverse impacts to regionally or locally important wildlife corridors.*

## 7. SPECIAL-STATUS SPECIES DEFINITION

### 7.1 Definitions

For purposes of this analysis, special-status species are plants and animals that are legally protected under the California and Federal Endangered Species Acts (CESA and FESA, respectively) or other regulations, and species that are considered rare by the scientific community (for example, the CNPS). Special-status species are defined as:

- plants and animals that are listed or proposed for listing as threatened or endangered under the CESA (Fish and Game Code §2050 *et seq.*; 14 CCR §670.1 *et seq.*) or the FESA (50 CFR 17.12 for plants; 50 CFR 17.11 for animals; various notices in the Federal Register [FR] for proposed species);
- plants and animals that are candidates for possible future listing as threatened or endangered under the FESA (50 CFR 17; FR Vol. 64, No. 205, pages 57533-57547, October 25, 1999); and under the CESA (California Fish and Game Code §2068);
- plants and animals that meet the definition of endangered, rare, or threatened under the CEQA (14 CCR §15380) that may include species not found on either CESA or FESA lists;
- plants occurring on Ranks 1A, 1B, 2A, 2B, 3, and 4 of CNPS' electronic *Inventory* (CNPS 2001). The CDFW recognizes that Ranks 1A, 1B, 2A and 2B of the CNPS inventory contain plants that, in most cases, would qualify for State listing, and CDFW requests their inclusion in EIRs. Plants occurring on CNPS Ranks 3 and 4 are "plants about which more information is necessary," and "plants of limited distribution," respectively (CNPS 2001). Such plants may be included as special-status species on a case by case basis due to local significance or recent biological information (more on CNPS Rank species below);
- migratory nongame birds of management concern listed by the USFWS (Migratory Nongame Birds of Management Concern in the United States: The list 1995; Office of Migratory Bird Management; Washington D.C.; Sept. 1995);
- animals that are designated as "species of special concern" by CDFW (2016);
- animal species that are "fully protected" in California (Fish and Game Codes 3511, 4700, 5050, and 5515).
- Bat species that are designated on the Western Bat Working Group's (WBWG) Regional Bat Species Priority Matrix as: "RED or HIGH." This priority is justified by the WBWG as follows: "Based on available information on distribution, status, ecology, and known threats, this designation should result in these bat species being considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

should a commitment to management exist. These species are imperiled or are at high risk of imperilment.”

In the paragraphs below, we provide further definitions of legal status as they pertain to the special-status species discussed in this report or in the attached tables.

Federal Endangered or Threatened Species. A species listed as Endangered or Threatened under the FESA is protected from unauthorized “take” (that is, harass, harm, pursue, hunt, shoot, trap) of that species. If it is necessary to take a federally-listed Endangered or Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from the USFWS prior to initiating the take.

State Threatened Species. A species listed as Threatened under the CESA (§2050 of California Fish and Game Code) is protected from unauthorized “take” (that is, harass, pursue, hunt, shoot, trap) of that species. If it is necessary to “take” a state listed Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from CDFW prior to initiating the “take.”

California Species of Special Concern. These are species in which their California breeding populations are seriously declining and extirpation from all or a portion of their range is possible. This designation affords no legally mandated protection; however, pursuant to the CEQA Guidelines (14 CCR §15380), some species of special concern could be considered “rare.” Pursuant to its rarity status, any unmitigated impacts to rare species could be considered a “significant effect on the environment” (§15382). Thus, species of special concern must be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency.

CNPS Rank Species. The CNPS maintains an “Inventory” of special status plant species. This inventory has four lists of plants with varying rarity. These lists are: Rank 1, Rank 2, Rank 3, and Rank 4. Although plants on these lists have no formal legal protection (unless they are also state or federally-listed species), CDFW requests the inclusion of Rank 1 species in environmental documents. In addition, other state and local agencies may request the inclusion of species on other lists as well. The Rank 1 and 2 species are defined below:

- Rank 1A: Presumed extinct in California;
- Rank 1B: Rare, threatened, or endangered in California and elsewhere;
- Rank 2A: Plants presumed extirpated in California, but more common elsewhere;
- Rank 2B: Rare, threatened, or endangered in California, but more common elsewhere.

All of the plants constituting Rank 1B meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (CESA) of the Fish and Game Code and are eligible for state listing (CNPS 2001). Rank 2 species are rare in California, but more common elsewhere. Ranks 3 and 4 contain species about which there is some concern and are reviewed by CDFW and maintained on “watch lists.”

Additionally, in 2006 CNPS updated their lists to include “threat code extensions” for each list. For example, Rank 1B species would now be categorized as Rank 1B.1, Rank 1B.2, or Rank 1B.3. These threat codes are defined as follows:

- .1 is considered “seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)”;
- .2 is “fairly endangered in California (20-80% of occurrences threatened)”;
- .3 is “not very endangered in California (less than 20% of occurrences threatened or no current threats known).”

Under the CEQA review process only CNPS Rank 1 and 2 species are considered since these are the only CNPS species that meet CEQA’s definition of “rare” or “endangered.” Impacts to Rank 3 and 4 species are not regarded as significant pursuant to CEQA.

Fully Protected Birds. Fully protected birds, such as the white-tailed kite and golden eagle, are protected under California Fish and Game Code (§3511). Fully protected birds may not be “taken” or possessed (i.e., kept in captivity) at any time.

## 7.2 Potential Special-Status Plant Species on the Project Site

Figure 4 provides a graphical illustration of the known records for special-status plant species within 3 miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site. The project site falls within the geographic region called the Santa Rosa Plain by the USFWS and the Corps. The Santa Rosa Plain has a number of state and federally-listed species and there are regulatory agency rules that govern how projects must evaluate impacts to wetlands and species protected pursuant to the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA). Due to the sensitivity federally and state-listed plant species known from the Santa Rosa Plain, we discuss listed species further below.

### 7.2.1 SONOMA SUNSHINE

Sonoma sunshine (*Blennosperma bakeri*) is a federally and state-listed endangered plant species. It is also a CNPS Rank 1B.1 species. The USFWS’ Recovery Plan for the Santa Rosa Plain (USFWS 2016) designates the project site within the *Blennosperma bakeri* Southern Core Area (Figure 5). This annual member of the sunflower family is found in vernal pools and grassland habitats in the Santa Rosa Plain and from the Sonoma area. Sonoma sunshine flowers from March through May. It is threatened by urbanization, grazing and agriculture.

The closest CNDDDB record for Sonoma sunshine is located 1.3 miles northwest of the project site (Occurrence No. 37) (Figure 4). ***Sonoma sunshine plants were not detected during appropriately-timed rare plant surveys conducted in 2001, 2002, and 2018.***

### 7.2.2 BURKE’S GOLDFIELDS

Burke’s goldfields (*Lasthenia burkei*) is a federally and state-listed endangered species protected pursuant to the FESA and the CESA, respectively. It is also a CNPS Rank 1B.1 species. The

USFWS' Recovery Plan for the Santa Rosa Plain (USFWS 2016) designates the project site within the *Lasthenia burkei* Southern Core Area (Figure 6).

This small, slender annual member of the sunflower family is found in meadows, seeps, and vernal pools. The yellow flowers of the Burke's goldfields bloom from April through June. This species is known only from southern portions of Lake and Mendocino counties, the western portion of Napa County, and from northeastern Sonoma County (the Santa Rosa Plain). Historically, 39 colonies were known from the Santa Rosa Plain, two colonies were known from Lake County, and one colony was known in Mendocino County. The occurrence in Mendocino County is most likely extirpated. From north to south in the Santa Rosa Plain, the species occurs from north of the community of Windsor to east of the city of Sebastopol. It is threatened by agriculture, urbanization, development, grazing, road widening, road maintenance, and non-native plants.

The closest CNDDDB record for Burke's goldfields is located 1 mile northwest of the project site (Occurrence No. 28) (Figure 4). ***Burke's goldfields were not detected during appropriately-timed rare plant surveys conducted in 2001, 2002, and 2018.***

#### 7.2.3 SEBASTOPOL MEADOWFOAM

Sebastopol meadowfoam (*Limnanthes vinculans*) is a federally and state-listed endangered species. It is also a CNPS Rank 1B.1 species. The USFWS' Recovery Plan for the Santa Rosa Plain (USFWS 2016) designates the project site within the *Limnanthes vinculans* Southern Core Area (Figure 7).

This annual member of the meadowfoam family blooms April through May, and is found in meadows and seeps, seasonally wet grasslands, and vernal pools. Although the first leaves are narrow and undivided, leaves on the mature plant have three to five undivided leaflets along each side of a long stalk (petiole). The shape of the leaves distinguishes Sebastopol meadowfoam from other members of the *Limnanthes* genus. It is threatened by urbanization, agriculture, grazing, non-native plants, and vehicles. The only known natural occurrences of this species have been recorded in Sonoma County.

The closest CNDDDB record for Sebastopol meadowfoam is located 0.3-mile north of the project site (Occurrence No. 31) (Figure 4). ***Sebastopol meadowfoam plants were not detected during appropriately-timed rare plant surveys conducted in 2001, 2002, and 2018.***

### 7.3 Potential Special-Status Wildlife Species on the Project Site

Figure 4 provides a graphical illustration of the known records for special-status wildlife species within 3 miles of the project site and helps readers visually understand the number of sensitive species known to occur near the project site. A search of the CNDDDB found five records for special-status wildlife species occurring within 3 miles of the project site (Table 4). Special-status species with potential to occur on the project site are discussed below.

### 7.3.1 CALIFORNIA TIGER SALAMANDER

The California tiger salamander Sonoma County “Distinct Population Segment” (DPS) is a federally listed endangered species. The project site is located within its known range. The USFWS determined that the Sonoma County DPS is significantly and immediately imperiled by a variety of threats including habitat destruction, degradation, and fragmentation due to urban development, road construction, pesticide drift, collection, and inadequate regulatory mechanisms. In addition, it was determined that this population could face extinction as a result of naturally occurring events (e.g., fires, droughts) due to the small and isolated nature of the remaining breeding sites combined with the small number of individuals in the population. On August 31, 2011, the Final Rule on the Revised Designation of Critical Habitat for the Sonoma County Distinct Population of the California tiger salamander was published (76 FR 54346 54372) (USFWS 2011). Approximately 47,383 acres were designated as critical habitat. ***The project site is located within this mapped critical habitat*** (Figure 8). Per the USFWS Recovery Plan for the Santa Rosa Plain (USFWS 2016), the project site is located within the Llano Crescent-Stony Point “Core Area” (Figure 9).

On March 4, 2010, CTS was also state-listed as a threatened species under the CESA. Proposed projects may not impact CTS without incidental take authority from both the USFWS and the CDFW. Prior to implementing a project that would result in “take” (i.e., to harm, harass, or kill) of CTS, the USFWS must prepare an incidental take permit pursuant to either Section 7 or Section 10 of the FESA. Similarly, projects that could result in take of CTS also require incidental take authority from the CDFW pursuant to the CESA.

CTS occur in grasslands and open oak woodlands that provide suitable over-summering and/or breeding habitats. M&A has worked with populations that are almost at sea level (Catellus Site in the City of Fremont) to almost 2,900 feet above sea level (Kammerer Ranch, East Santa Clara County). CTS spend the majority of their lives underground. They typically only emerge from their subterranean refugia for a few nights each year during the rainy season to migrate to breeding ponds. While 1.3 miles is typically considered the maximum migration distance of CTS to/from their breeding pools to upland over-summering habitat, there is literature suggesting that the CTS could migrate up to 1.5 miles from their breeding pools. This migration distance is reported by the USFWS’ Recovery Plan for the Santa Rosa Plain (USFWS 2016) where it states: Based on distances travelled per night, Searcy and Shaffer (2011) estimated that Central CTS are physiologically capable of moving up to 2.4 km (1.5 mi) each breeding season, with an average dispersal distance estimated to be 0.56 km (1,840 ft). Orloff (2007) found that the majority of CTS dispersed at least 0.5-mile (0.8 km) from the breeding site, with a smaller number of salamanders appearing to move even farther—from 1.2 to 2.2 km (0.75 to 1.3 miles) between breeding ponds and upland habitat. M&A biologists, Mr. Monk and Ms. Sarah Lynch, have observed CTS migrating up to 0.6-mile from their underground refugia to breeding ponds (personal data from Livermore, California collected in 1997). As such, unobstructed migration corridors are important component of CTS habitat.

In Sonoma County, CTS emerge during the first heavy, warm rains of the year, typically in late November and early December. In most instances, larger movements of CTS do not occur unless it has been raining hard and continuously for several hours. Typically, for larger movements of

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

CTS to occur, nighttime temperatures also must be above 48° F (Mr. Monk and Ms. Lynch pers. observations). Other factors that encourage larger movements of CTS to their breeding ponds include flooding of refugia (observed by Mr. Monk in Springtown, east Alameda County in 1997) as occurs after significant rainfall events.

During the spring, summer, and fall months, most known populations of the CTS throughout this species range in California predominately use California ground squirrel (*Otospermophilus beechyi*) burrows as over summering habitat (Mr. Monk personal observation). However, in Sonoma County where California ground squirrel populations are scarce to non-existent, subterranean refugia likely include Botta's pocket gopher burrows, deep fissures in desiccated clay soils, and debris piles (e.g., downed wood, rock piles).

Stock ponds, seasonal wetlands, and deep vernal pools typically provide most of the breeding habitat used by CTS. In such locations, CTS attach their eggs to rooted, emergent vegetation, and other stable filamentous objects in the water column. Eggs are gelatinous and are laid singly or occasionally in small clusters. Eggs range in size from about  $\frac{3}{4}$  the diameter of a dime to the full diameter of a dime.

Occasionally CTS are found breeding in slow moving streams or ditches. In 1997, Mr. Monk observed CTS breeding in large, still ditches in Fremont, California. Ditches and/or streams that are subject to rapid flows, even if only on occasion, typically will not support or sustain CTS egg attachment through hatching, and thus, are not usually used successfully by CTS for breeding (Mr. Monk and Ms. Lynch, pers. observations). Similarly, streams and/or ditches that support predators of CTS or their eggs and larvae such as fish, American bullfrogs (*Lithobates catesbeiana*), red swamp crayfish (*Procambarus clarkii*), or signal crayfish (*Pacifastacus leniusculus*), almost never constitute suitable breeding habitat.

In most of the range of CTS, seasonal wetlands that are used for breeding typically must hold water into the month of May to allow enough time for larvae to fully metamorphose. Typically, in Sonoma County pools that are 16 inches or deeper in the peak winter months will remain inundated long enough to provide good breeding conditions for CTS. In dry years, seasonal wetlands, especially shallower pools, may dry too early to allow enough time for CTS larvae to successfully metamorphose. Under such circumstances, desiccated CTS larvae are often found in dried pools. In addition, as pools dry down to very small areas of inundation, CTS larvae become concentrated and are very susceptible to predation.

CTS surveys were conducted during the months of December 2001 through February 7, 2002. During surveys conducted on February 7 and 8, 2002, Dr. Fawcett observed more than 20 CTS larvae in a pool on the project site. A copy of the *Report on California Tiger Salamander Surveys, Cherry Ranch Property* prepared by Dr. Fawcett, dated June 13, 2002, is provided as Attachment G. The nearest CTS observation (CNDDDB Occurrence No. 237) was identified to be the vernal pools on the northwest edge of the abandoned Santa Rosa Air Center, which is east of the Cherry Ranch property. This CNDDDB record also includes the CTS found on the Cherry Ranch property by Dr. Fawcett in 2002.

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

Due to the confirmed presence of CTS on the project site, no additional site surveys were conducted. As the CTS was only a designated species of special concern at that time, that is, it was not listed under either the FESA or CESA, mitigation requirements were discussed and agreed upon with the Mr. Wilcox and Mr. Davis of CDFG. Based on these agreements, the Corps issued a NWP 29 in May 2002, authorizing the fill of 0.40-acre of wetland on the project site, provided agreed upon mitigation was provided.

Having obtained all the necessary local agency and resource agency permits, the project was poised to proceed with development when the USFWS emergency listed the CTS as endangered on July 22, 2002. The USFWS formalized the listing of the Sonoma County DPS of the CTS as endangered on March 19, 2003 (USFWS 2003).

The emergency listing of the CTS caused a re-evaluation of the mitigation and also resulted in requirement for a CTS salvage operation that was subsequently conducted in 2004/2005 under the guidance of the USFWS and the CDFG. The USFWS issued a Biological Opinion (BO) (File No. 1-1-06-F-0054) to the Corps on February 14, 2006 (Attachment B). As required in that BO additional CTS salvage was required over the winter and spring of 2005/2006. This second salvage effort was to be completed prior to mass grading of the project site. Under the guidance of the USFWS and the CDFG, CTS larvae were collected from the on-site breeding pool using dip-nets and funnel traps and re-located to the Todd Road Preserve.

The USFWS' Biological Opinion states that the 6.63-acre project site supported 5.49 acres of CTS habitat. The 5.49 acres included breeding habitat as well as upland, foraging, and dispersal habitat. Approximately 1.14 acres of the 6.63-acre site supported a parking lot and buildings, which were not regarded as CTS habitat. To mitigate the loss of 5.49 acres of CTS habitat on the project site, the applicant purchased 16.47 acres of CTS mitigation credits from the Christina Preserve to satisfy the 3:1 replacement ratio for impacts to CTS habitat, as required by the USFWS' Biological Opinion. Having obtained all the necessary resource agency permits and having purchased all the required mitigation credits, the project site was graded in 2007, removing the previously occupied CTS habitats on the project site. The roadside ditch was included in the CTS habitat acreage, as the APN acreage was used to calculate CTS mitigation requirements. The APN extends to the pavement section of Fresno Avenue.

Currently, there are a few shallow topographic low areas on the project site that were created during the initial grading activities which have subsided in some areas. These low areas are regarded as "construction-related" features that are not subject to Corps jurisdiction, as verified by the Corps during the site verification project site visit on December 13, 2018. The Corps (Mr. Will Connor and Mr. Bert Ho) again verified that no regulated wetlands remained on the project site during a site walk with M&A (Mr. Geoff Monk and Ms. Hope Kingma), the USFWS (Mr. Vincent Griego), and CDFW (Ms. Melanie Day) on July 10, 2019. During that project site walk, Mr. Griego also agreed that the CTS impacts had been fully mitigated and that construction of the proposed project currently would not impact CTS breeding habitat.

### 7.3.2 WHITE-TAILED KITE

The white-tailed kite (*Elanus leucurus*) is a “Fully Protected” species under the California Fish and Game Code (§3511). Fully protected birds may not be “taken” or possessed (i.e., kept in captivity) at any time. It is also protected under the federal Migratory Bird Treaty Act (50 CFR 10.13). The white-tailed kite is typically found foraging in grassland, marsh, or cultivated fields where there are dense-topped trees or shrubs for nesting and perching. They nest in a wide variety of trees of moderate height and sometimes in tall bushes, such as coyote bush (*Baccharis pilularis*). Native trees used are live and deciduous oaks (*Quercus* spp.), willows (*Salix* spp.), cottonwoods (*Populus* spp.), sycamores (*Platanus* spp.), maples (*Acer* spp.), toyon (*Heteromeles arbutifolia*), and Monterey cypress (*Cupressus macrocarpa*). Although the surrounding terrain may be semiarid, kites often reside near water sources, where prey is more abundant. The particular characteristics of the nesting site do not appear to be as important as its proximity to a suitable food source (Shuford 1993). Kites primarily hunt small mammals, with California meadow voles (*Microtus californicus*) accounting from between 50-100% of their diet (Shuford 1993).

The nearest CNDDDB record for this species is located 2.1 miles east of the project site (Occurrence No. 77). The project site provides suitable hunting grounds for white-tailed kites, and the trees on and immediately adjacent to the project site provide potentially suitable nesting habitat. *Accordingly, impacts to white-tailed kite are regarded as potentially significant pursuant to the CEQA.* Mitigation could be implemented to reduce these impacts to levels regarded as less than significant pursuant to the CEQA. The Impacts and Mitigation Measures that follow in the sections below address these impacts.

## 8. REGULATORY FRAMEWORK FOR NATIVE WILDLIFE, FISH, AND PLANTS

This section provides a discussion of those laws and regulations that are in place to protect native wildlife, fish, and plants. Under each law we discuss their pertinence to the proposed development.

### 8.1 Federal Endangered Species Act

The FESA forms the basis for the federal protection of threatened or endangered plants, insects, fish and wildlife. FESA contains four main elements, they are as follows:

Section 4 (16 USCA §1533): Species listing, Critical Habitat Designation, and Recovery Planning: outlines the procedure for listing endangered plants and wildlife.

Section 7 (§1536): Federal Consultation Requirement: imposes limits on the actions of federal agencies that might impact listed species.

Section 9 (§1538): Prohibition on Take: prohibits the "taking" of a listed species by anyone, including private individuals, and State and local agencies.

Section 10: Exceptions to the Take Prohibition: non-federal agencies can obtain an incidental take permit through approval of a Habitat Conservation Plan.

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

In the case of salt water fish and other marine organisms, the requirements of FESA are enforced by the NMFS. The USFWS enforces all other cases. Below, Sections 9, 7, and 10 of FESA are discussed since they are the sections most relevant to the proposed project.

Section 9 of FESA as amended, prohibits the "take" of any fish or wildlife species listed under FESA as endangered. Under federal regulation, "take" of fish or wildlife species listed as threatened is also prohibited unless otherwise specifically authorized by regulation. "Take," as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." "Harm" includes not only the direct taking of a species itself, but the destruction or modification of the species' habitat resulting in the potential injury of the species. As such, "harm" is further defined to mean "an act which actually kills or injures wildlife; such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR 17.3). A December 2001 decision by the 9th Circuit Court of Appeals (Arizona Cattle Growers' Association, Jeff Menges, vs. the USFWS and Bureau of Land Management, and the Southwest Center for Biological Diversity) ruled that the USFWS must show that a threatened or endangered species is present on a project site and that it would be taken by the project activities. According to this ruling, the USFWS can no longer require mitigation based on the probability that the species could use the site. Rather, they must show that it is actually present.

Section 9 applies to any person, corporation, federal agency, or any local or State agency. If "take" of a listed species is necessary to complete an otherwise lawful activity, this triggers the need to obtain an incidental take permit either through a Section 7 Consultation as discussed further below (for federal actions or private actions that are permitted or funded by a federal agency), or requires preparation of a Habitat Conservation Plan (HCP) pursuant to Section 10 of FESA (for state and local agencies, or individuals, and projects without a federal "nexus").

Section 7(a)(2) of the Act requires that each federal agency consult with the USFWS to ensure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of critical habitat for listed species. Critical habitat designations mean: (1) specific areas within a geographic region currently occupied by a listed species, on which are found those physical or biological features that are essential to the conservation of a listed species and that may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by a listed species that are determined essential for the conservation of the species.

The Section 7 consultation process only applies to actions taken by federal agencies that are considering authorizing discretionary projects. Section 7 is by and between the NMFS and/or the USFWS and the federal agency contemplating a discretionary approval (that is, the "federal nexus agency," for example, the Corps or the Federal Highway Administration). Private parties, cities, counties, etc. (i.e., applicants) may participate in the Section 7 consultation *at the discretion of the federal agencies conducting the Section 7 consultation*. The Section 7 consultation process is triggered by a determination of the "action agency" – that is, the federal agency that is carrying out, funding, or approving a project - that the project "may affect" a listed

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

species or critical habitat. If an action is likely to adversely affect a listed species or designated critical habitat, formal consultation between the nexus agency and the USFWS/NMFS is required. As part of the formal consultation, the USFWS/NMFS may resolve any issues informally with the nexus agency or may prepare a formal Biological Opinion assessing whether the proposed action would be likely to result in “jeopardy” to a listed species or if it could adversely modify designated critical habitat. If the USFWS/NMFS prepares a Biological Opinion, it will contain either a “jeopardy” or “non-jeopardy” decision. If the USFWS/NMFS concludes that a proposed project would result in adverse modification of critical habitat or would jeopardize the continued existence of a federal listed species (that is, it will issue a jeopardy decision), the nexus federal agency would be most unlikely to authorize its discretionary permit. If the USFWS/NMFS prepares a “non-jeopardy” Biological Opinion, the nexus federal agency may authorize the discretionary permit making all conditions of the Biological Opinion conditions of its discretionary permit. A non-jeopardy Biological Opinion constitutes an “incidental take” permit that allows applicants to “take” federally-listed species while otherwise carrying out legally sanctioned projects.

For non-federal entities, for example private parties, cities, counties that are considering a discretionary permit, Section 10 provides the mechanism for obtaining take authorization. Under Section 10 of FESA, for the applicant to obtain an "incidental take permit," the applicant is required to submit a "conservation plan" to the USFWS or NMFS that specifies the impacts that are likely to result to federally-listed species, and the measures the applicant will undertake to minimize and mitigate such impacts, and the funding that will be available to implement those steps. Conservation plans under FESA have come to be known as "habitat conservation plans" or "HCPs" for short. The terms incidental take permit, Section 10 permit, and Section 10(a)(1)(B) permit are used interchangeably by the USFWS. Section 10(a)(2)(B) of FESA provides statutory criteria that must be satisfied before an incidental take permit can be issued.

#### 8.1.1 RESPONSIBLE AGENCY

FESA gives regulatory authority to the USFWS for federally-listed terrestrial species and non-anadromous fish. The NMFS has regulatory authority over federally-listed marine mammals and anadromous fish.

#### 8.1.2 APPLICABILITY TO THE PROPOSED PROJECT

The project site does not provide fisheries habitat; thus, the project would not result in impacts to federally-listed anadromous fish species. As such, consultation with the NMFS for the proposed project is not warranted.

*A Biological Assessment* for the Cherry Ranch Development Project was prepared by Golden Bear Biostudies, dated November 22, 2002. On October 25, 2005, Mr. Dave Wickens of the Corps, requested initiation of formal FESA Section 7 consultation with the USFWS for the proposed project. On February 14, 2006, the USFWS issued a Biological Opinion (File No. 1-1-06-F-0054) for the Cherry Ranch Project (Attachment B).

Protocol-level rare plant surveys were conducted at the project site in 2001, 2002, and 2018, and no rare plant species were observed. Therefore, the project site is not considered to support “occupied” habitat for federally-listed plant species. Regardless, the USFWS Biological Opinion

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

states that the project site supported 0.40-acre of potential Sebastopol meadowfoam, Sonoma sunshine, and Burke's goldfields habitat and required mitigation for impacts to “suitable” listed vernal pool plant habitat. To mitigate the loss of 0.40-acre of suitable, but not occupied endangered plant habitat, the applicant purchased 0.40-acre of wetland creation/restoration credits and 0.40-acre of vernal pool preservation credits for Sebastopol meadowfoam from the Hale Mitigation Bank (transferred from WMP LLC) (October 22, 2002), as authorized in the USFWS Biological Opinion. In addition, the applicant purchased mitigation credits from the Southwest Santa Rosa Vernal Pool Preserve Bank (equivalent to 2.4 acres of endangered plant habitat and/or 4.8 acres of CTS habitat) (June 10, 2002). The roadside ditch does not support suitable listed plant habitat; therefore, additional mitigation credits for impacts to listed plant habitat is not required.

CTS surveys were conducted during the months of December 2001 through February 7, 2002, by Dr. Fawcett. During surveys conducted on February 7 and 8, 2002, Dr. Fawcett observed more than 20 CTS larvae in a pool on the project site. A copy of the *Report on California Tiger Salamander Surveys, Cherry Ranch Property* prepared by Dr. Fawcett, dated June 13, 2002, is provided as Attachment G. Due to the confirmed presence of CTS on the project site, no additional site surveys were conducted. Having obtained all the necessary resource agency permits, the project was poised to proceed with development when the USFWS emergency listed CTS as endangered on July 22, 2002. The emergency listing of the CTS caused a re-evaluation of the mitigation and also resulted in requirement for a CTS salvage operation that was subsequently conducted in 2004/2005 under the guidance of the USFWS and the CDFG. The USFWS issued a Biological Opinion (BO) (File No. 1-1-06-F-0054) to the Corps on February 14, 2006 (Attachment B). As required in that BO additional CTS salvage was required over the winter and spring of 2005/2006. This second salvage effort was to be completed prior to mass grading of the project site. Under the guidance of the USFWS and the CDFG, CTS larvae were collected from the on-site breeding pool using dip-nets and funnel traps and re-located to the Todd Road Preserve.

The USFWS Biological Opinion states that the 6.63-acre project site supported 5.49 acres of tiger salamander habitat. The 5.49 acres included breeding habitat as well as upland, foraging, and dispersal habitat. Approximately 1.14 acres of the 6.63-acre site supported a parking lot and buildings, which were not regarded as CTS habitat. To mitigate the loss of 5.49 acres of CTS habitat on the project site, the applicant purchased 16.47 acres of CTS mitigation credits from the Christina Preserve (November 3, 2006) to satisfy the 3:1 replacement ratio for CTS habitat, as required by the USFWS Biological Opinion. The roadside ditch does not support suitable CTS habitat; therefore, additional species mitigation credits are not required.

*Currently, there are a few topographic low areas on the project site that were created during the initial grading activities which have subsided in some areas. These low areas are regarded as “construction-related” features, not subject to Corps jurisdiction, as verified by the Corps during the site verification project site visit on December 13, 2018. The Corps (Mr. Will Connor and Mr. Bert Ho) again verified that no regulated wetlands remained on the project site during a site walk with M&A (Mr. Geoff Monk and Ms. Hope Kingma), the USFWS (Mr. Vincent Griego), and CDFW (Ms. Melanie Day) on July 10, 2019. During that project site walk, Mr. Griego also agreed that the CTS impacts had been fully mitigated and that*

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

***construction related topographic low areas did not constitute CTS breeding habitat. In addition, Mr. Griego stated that the USFWS' previously issued Biological Opinion remains valid today and can be used by the Corps in its current permit authorization.***

## **8.2 Federal Migratory Bird Treaty Act**

The Migratory Bird Treaty Act of 1918 (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989) makes it unlawful to “take” (kill, harm, harass, shoot, etc.) any migratory bird listed in Title 50 of the Code of Federal Regulations, Section 10.13, including their nests, eggs, or young. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, wading birds, seabirds, and passerine birds (such as warblers, flycatchers, swallows, etc.).

Executive Order 13186 for conservation of migratory birds (January 11, 2001) requires that any project with federal involvement address impacts of federal actions on migratory birds. The order is designed to assist federal agencies in their efforts to comply with the Migratory Bird Treaty Act and does not constitute any legal authorization to take migratory birds. The order also requires federal agencies to work with the USFWS to develop a memorandum of understanding (MOU). Protocols developed under the MOU must promote the conservation of migratory bird populations through the following means:

- avoid and minimize, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions;
- restore and enhance habitat of migratory birds, as practicable; and prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable.

### **8.2.1 APPLICABILITY TO THE PROPOSED PROJECT**

Common songbirds and raptors, such as white-tailed kite, that could nest in the trees on the site or directly adjacent to the site would be protected pursuant to the Migratory Bird Treaty Act. As long as there is no direct mortality of species protected pursuant to the Migratory Bird Treaty Act caused by development of the site, there should be no constraints to development of the site. To comply with the Migratory Bird Treaty Act, non-disturbance buffers would have to be established around any active nesting site and would have to be of sufficient size to protect the nesting birds from harm. Upon completion of nesting, the buffers could be removed, and the project could commence as otherwise planned. Please review specific requirements for avoidance of nest sites in the Impacts and Mitigations section below.

## **8.3 California Endangered Species Act**

### **8.3.1 SECTION 2081 OF THE CALIFORNIA ENDANGERED SPECIES ACT**

In 1984, the state legislated the CESA (Fish and Game Code §2050). The basic policy of CESA is to conserve and enhance endangered species and their habitats. State agencies will not approve private or public projects under their jurisdiction that would impact threatened or endangered species if reasonable and prudent alternatives are available. Because CESA does not have a

provision for "harm" (see discussion of FESA, above), CDFW considerations pursuant to CESA are limited to those actions that would result in the direct take of a listed species.

If CDFW determines that a proposed project could impact a state listed threatened or endangered species, CDFW will provide recommendations for "reasonable and prudent" project alternatives. The CEQA lead agency can only approve a project if these alternatives are implemented, unless it finds that the project's benefits clearly outweigh the costs, reasonable mitigation measures are adopted, there has been no "irreversible or irretrievable" commitment of resources made in the interim, and the resulting project would not result in the extinction of the species. In addition, if there would be impacts to threatened or endangered species, the lead agency typically requires project applicants to demonstrate that they have acquired "incidental take" permits from CDFW and/or USFWS (if it is a federally-listed species) prior to allowing/permitting impacts to such species.

If proposed projects would result in impacts to a state-listed species, an "incidental take" permit pursuant to §2081 of the Fish and Game Code would be necessary (versus a federal incidental take permit for federally-listed species). CDFW will issue an incidental take permit only if:

- 1) The authorized take is incidental to an otherwise lawful activity;
- 2) the impacts of the authorized take are minimized and fully mitigated;
- 3) measures required to minimize and fully mitigate the impacts of the authorized take:
  - a) are roughly proportional in extent to the impact of the taking on the species;
  - b) maintain the project applicant's objectives to the greatest extent possible; and,
  - c) capable of successful implementation; and,
- 4) adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with, and the effectiveness of, the measures.

If an applicant is preparing a HCP as part of the federal 10(a) permit process, the HCP might be incorporated into the §2081 permit if it meets the substantive criteria of §2081(b). To ensure that an HCP meets the mitigation and monitoring standards in Section 2081(b), an applicant should involve CDFW staff in development of the HCP. If a final Biological Opinion (federal action) has been issued for the project pursuant to Section 7 of the FESA, it might also be incorporated into the §2081 permit if it meets the standards of §2081(b).

No §2081 permit may authorize the take of a species for which the Legislature has imposed strict prohibitions on all forms of "take." These species are listed in several statutes that identify "fully protected" species and "specified birds." See Fish and Game Code §§ 3505, 3511, 4700, 5050, 5515, and 5517. If a project is planned in an area where a "fully protected" species or a "specified bird" occurs, an applicant must design the project to avoid all take.

Fish and Game Code §2080.1 allows an applicant who has obtained a "non-jeopardy" federal Biological Opinion pursuant to Section 7 of the FESA, or who has received a federal 10(a) permit (federal incidental take permit) pursuant to the FESA, to submit the federal opinion or permit to CDFW for a determination as to whether the federal document is "consistent" with CESA. If after 30 days CDFW determines that the federal incidental take permit is consistent with state law, and that all state listed species under consideration have been considered in the

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

federal Biological Opinion, then no further permit or consultation is required under CESA for the project. However, if CDFW determines that the federal opinion or permit is not consistent with CESA, or that there are state listed species that were not considered in the federal Biological Opinion, then the applicant must apply for a state CESA permit under Section 2081(b). Section 2081(b) is of no use if an affected species is state-listed, but not federally-listed.

State and federal incidental take permits are issued on a discretionary basis and are typically only authorized if applicants are able to demonstrate that impacts to the listed species in question are unavoidable and can be mitigated to an extent that the reviewing agency can conclude that the proposed impacts would not jeopardize the continued existence of the listed species under review. Typically, if there would be impacts to a listed species, mitigation that includes habitat avoidance, preservation, and creation of endangered species habitat is necessary to demonstrate that projects would not threaten the continued existence of a species. In addition, management endowment fees are usually collected as part of the agreement for the incidental take permit(s). The endowment is used to manage any lands set-aside to protect listed species, and for biological mitigation monitoring of these lands over (typically) a five-year period.

#### 8.3.2 APPLICABILITY TO THE PROPOSED PROJECT

Several state-listed plant and wildlife species are known to occur in the region of the project site (Tables 3 and 4). No state-listed plant species were identified on the project site during protocol surveys conducted in 2001, 2002, and 2018.

During the survey conducted in 2002, Dr. Fawcett confirmed the presence of CTS, a state-listed species, on the project site. The project site was graded in 2007 prior to the state listing of CTS on March 4, 2010. To mitigate the loss of 5.49 acres of CTS habitat on the project site, the applicant purchased 16.47 acres of CTS mitigation credits from the Christina Preserve to satisfy the 3:1 replacement ratio for impacts to CTS habitat. The pools previously occupied by CTS on the project site no longer occur on the site. The roadside ditch was included in the CTS habitat acreage, as the APN acreage was used to calculate CTS mitigation requirements. The APN extends to the pavement section of Fresno Avenue.

To obtain CESA Incidental Take Permit coverage for the currently proposed project, the applicant will submit the USFWS Biological Opinion to the CDFW and request a "Consistency Determination" to obtain an CESA incidental take coverage for this project. Fish and Game Code Section 2080.1 states the requirements and procedures for a 2080.1 Consistency Determination. 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 of the CDFW 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 CDFW Director for a determination as to whether the federal document is "consistent" with CESA. If CDFW determines that the federal opinion or permit is not consistent with CESA, then the applicant must apply for a state CESA permit under Section 2081(b).

Mitigation requirements for impacts to CTS associated with this project site were originally agreed to by Mr. Carl Wilcox and Mr. Liam Davis of the California Department of Fish and

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

Game (CDFG). Pursuant to the USFWS' Biological Opinion, mitigation for impacts to CTS was fully implemented at a 3:1 replacement to impacts ratio. In addition, 3:1 mitigation is currently consistent with both CDFW and USFWS policies for mitigating impacts to CTS dispersal habitat. Accordingly, no new mitigation for impacts to CTS are likely to be required by CDFW over that which already purchased for this project prior to the time it was mass graded in 2007.

Currently, there are a few shallow topographic low areas on the project site that were created during the initial grading activities which have subsided in some areas. These low areas are regarded as "construction-related" features that are not subject to Corps jurisdiction, as verified by the Corps during the site verification project site visit on December 13, 2018. The Corps (Mr. Will Connor and Mr. Bert Ho) again verified that no regulated wetlands remained on the project site during a site walk with M&A (Mr. Geoff Monk and Ms. Hope Kingma), the USFWS (Mr. Vincent Griego), and CDFW (Ms. Melanie Day) on July 10, 2019. During that project site walk, Mr. Griego also agreed that the CTS impacts had been fully mitigated and that construction related topographic low areas did not constitute CTS breeding habitat. Ms. Day requested that M&A analyze the shallow wetlands that were created along the eastern and southern project boundaries as result of grading in 2007 to determine if they could be breeding habitat. M&A concludes that these wetlands are too small and shallow to constitute CTS breeding habitat. Ms. Day in an email to Mr. Monk thought that it would not be necessary to further mitigate for impacts to these wetlands caused by grading along eastern and southern project site boundaries, but Ms. Day requested that these wetlands be evaluated in any ITP application submitted to the CDFW.

#### **8.4 California Fish and Game Code § 3503, 3503.5, 3511, and 3513**

California Fish and Game Code §3503, 3503.5, 3511, and 3513 prohibit the "take, possession, or destruction of birds, their nests or eggs." Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "take." Such a take would also violate federal law protecting migratory birds (Migratory Bird Treaty Act).

All raptors (that is, hawks, eagles, owls) their nests, eggs, and young are protected under CDFG Code (§3503.5). Additionally, "fully protected" birds, such as the white-tailed kite and golden eagle (*Aquila chrysaetos*), are protected under CDFG Code (§3511). "Fully protected" birds may not be taken or possessed (that is, kept in captivity) at any time.

##### **8.4.1 APPLICABILITY TO THE PROPOSED PROJECT**

Raptors that potentially could be impacted by the project include white-tailed kite, and common birds such as mourning dove, California scrub jay (*Aphelocoma californica*), and house finch, among others. Preconstruction nesting surveys would have to be conducted to ensure that there is no direct take of nesting birds including their eggs, or young. Any active nests that were found during preconstruction surveys would have to be avoided by the project. Suitable non-disturbance buffers would have to be established around nest sites until the nesting cycle is complete. Please review specific requirements for avoidance of nest sites for nesting bird species in the Impact and Mitigation section.

## 8.5 Santa Rosa Plain Conservation Strategy (USFWS 2005)

The federal listing of CTS resulted in uncertainty for many local jurisdictions, landowners, and developers about its effects on their current and proposed activities. Because of this uncertainty, local private and public interest groups met with the USFWS to discuss a cooperative approach to protecting CTS, while allowing currently planned and future land uses to occur within its range. The result of these discussions was the creation of the *Final Santa Rosa Plain Conservation Strategy* (USFWS 2005).

The purpose of the Strategy is threefold: (1) to establish a long-term conservation program sufficient to mitigate potential adverse effects of future development on the Santa Rosa 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 Sonoma County CTS and listed plants that may occur in the course of carrying out a broad range of activities on the Plain. The Strategy establishes interim and long-term mitigation requirements and designates conservation areas where mitigation will occur. It describes how habitat preserves will be established and managed. It also includes guidelines for translocation, management plans, adaptive management and funding.

The *Conservation Strategy* identifies areas within the Plain that should be conserved to benefit the listed plants and Sonoma County CTS. Their designation was based upon the following factors: 1) known distribution of the CTS; 2) the presence of suitable habitat; 3) presence of large blocks of natural or restorable land; 4) proximity to existing Preserves; and 5) known location of the listed plants. The designation of conservation areas also generally attempted to avoid future development areas established by urban growth boundaries and city general plans. The objective of these conservation areas is to ensure that preservation occurs throughout the distribution of the species.

The goal of the *Conservation Strategy* is to preserve a large enough area of suitable habitat to ensure the conservation of CTS and listed plants and contribute to their recovery. In order to do this, areas are identified within the Santa Rosa Plain that currently do or potentially could support CTS and listed plants, as well as the areas that currently do or likely will support development. This information was used to develop appropriate "conservation areas" and requirements as well as mitigation guidelines and requirements, in order to "provide consistency, timeliness and certainty for permitted activities."

Proposed projects within the potential CTS range will fall into one of three categories:

- a.) Projects within 1.3 miles of a known CTS breeding site, and likely to impact CTS breeding and/or upland habitat; or
- b.) Projects beyond 1.3 miles from a known CTS breeding site, but within the "Potential for Presence of California tiger salamander" or "Potential for Presence of California tiger salamander and Plants"; or
- c.) Projects where "Presence of California tiger salamander is Not Likely".

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

Different mitigation ratios are recommended for each of these categories.

The *Conservation Strategy* recommends that projects filling *potential* listed plant habitat should mitigate these impacts via the preservation of existing occupied habitat at a 1:1 ratio, and projects filling *known* listed plant habitat should mitigate these impacts via the preservation of existing occupied habitat at a 2:1 ratio, as per a Programmatic Biological Opinion (USFWS 1998) in effect at the time of the *Conservation Strategy* was prepared in 2005. The USFWS' 2007 Programmatic Biological Opinion (USFWS 2007) has since superseded the 1998 Programmatic Biological Opinion.

The *Conservation Strategy* recommends that projects filling wetlands should mitigate these impacts via the preservation of wetlands at a minimum of a 1:1 replacement ratio, depending on the quality of the filled wetlands, as per a Programmatic Biological Opinion (USFWS 1998) in effect at the time of the *Conservation Strategy* was prepared in 2005. The 1998 Programmatic Biological Opinion was superseded by a Programmatic Biological Opinion prepared by the USFWS for the Corps in 2007 (USFWS 2007). Currently the 2007 *Programmatic Biological Opinion* is under revision to incorporate the elements of the Recovery Plan for the Santa Rosa Plain (USFWS 2016) (See Recovery Plan below). This revised *Programmatic Biological Opinion* is currently under revision has not been released to the public at this time (Ms. Sahrye Cohen (Corps), pers. comm. with Mr. Monk on March 23, 2017).

#### 8.5.1 APPLICABILITY TO THE PROPOSED PROJECT

The project site is located in the Llano Conservation Area, and is a parcel known to previously support CTS breeding habitat (Figure 5 in the *Santa Rosa Plain Conservation Strategy*, USFWS 2005). The project site is not known to support rare or endangered plant species. Appropriate mitigation credits have been purchased to satisfy both CDFG (now CDFW), and the USFWS. Three to one (replacement habitat to impacted habitat ratio) was acquired for this project consistent with the requirements for CTS mitigation in the USFWS' 2007 Programmatic Biological Opinion (see discussions below).

### 8.6 Santa Rosa Plain Programmatic Biological Opinion (USFWS 2007)

The *Programmatic Biological Opinion* (USFWS 2007) is based on the biological framework presented in the *Conservation Strategy*. The *Programmatic Biological Opinion* replaced (supersedes) the July 17, 1998 *Programmatic Formal Consultation for U.S. Army Corps of Engineers 404 Permitted Projects that May Affect Four Endangered Plant Species on the Santa Rosa Plain* (USFWS 1998), that was prepared for listed plant species on the Santa Rosa Plain. Projects that require a Corps permit, that remain consistent with objectives stated in the *Conservation Strategy*, can be appended to the *Programmatic Biological Opinion* at the discretion of the USFWS. Projects that are appended to the *Programmatic Biological Opinion* will be provided individual take authorization for impacts to federally-listed species. It is noteworthy that the USFWS and Corps are revising the 2007 Programmatic Biological Opinion, and per a conversation that Mr. Monk had with Mr. Jason Hanni of the USFWS (conversation in September 2019), the USFWS is now writing project specific Biological Opinions in lieu of using the 2007 Programmatic Biological Opinion, and will do so here forward until the new Programmatic Biological Opinion is released by the USFWS/Corps.

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

### Impacts to Listed Plant Species

Under the *Programmatic Biological Opinion* (USFWS 2007), and as practiced today by USFWS for project specific Biological Opinions, seasonal wetlands are considered “suitable habitat” for listed plants if they are within the range of listed plants occurring on the Santa Rosa Plain. Seasonal wetlands are considered “occupied habitat” if surveys have been conducted following USFWS rare plant survey protocols and listed species are recorded on the site, or if listed species have been recorded on the site in the past. Even if two years of protocol rare plant surveys have been conducted proving absence of federally listed plants, seasonal wetlands are still regarded as “suitable” listed plant species habitat. The following mitigation to impacts ratios are required to adhere to the *Programmatic Biological Opinion* (USFWS 2007), and by convention for most project specific Biological Opinions.

#### **Burke’s Goldfields**

- Impacts to Occupied Habitat: 3:1 occupied or established habitat.
- Impacts to Suitable Habitat: 1:1 occupied or established habitat AND 0.5:1 established habitat.

#### **Sonoma Sunshine**

- Impacts to Occupied Habitat: 3:1 occupied or established habitat.
- Impacts to Suitable Habitat: 1:1 occupied or established habitat AND 0.5:1 established habitat.

#### **Sebastopol Meadowfoam**

- Impacts to Occupied Habitat: 2:1 occupied or established habitat.
- Impacts to Suitable Habitat: 1:1 occupied or established habitat AND 0.5:1 established habitat.

In addition, as per the *Programmatic Biological Opinion* (USFWS 2007), for impact sites with occupied or suitable habitat that are north of Santa Rosa Creek, the Preserve must support Burke's goldfields and/or Sonoma sunshine. For impact sites with suitable habitat that are located south of Santa Rosa Creek, the Preserve must support Sebastopol meadowfoam, Burke's goldfields, and/or Sonoma sunshine.

### Impacts to California Tiger Salamander

For projects that may affect CTS, mitigation requirements will apply to the entire project area, except the portions of the project site that are covered with existing hardscape (i.e., No Effect

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

areas). The following mitigation to impacts ratios are required by the *Programmatic Biological Opinion* (USFWS 2007) for project sites that affect Corps regulated waters of the U.S.:

#### Mitigation of 3:1

For projects that are within 500 feet of a known breeding site.

#### Mitigation of 2:1

For projects that are greater than 500 feet and within 2,200 feet of a known breeding site, and for projects beyond 2,200 feet from a known breeding site, but within 500 feet of an adult occurrence.

#### Mitigation of 1:1

For projects that are greater than 2,200 feet and within 1.3 miles of a known breeding site.

#### Mitigation of 0.2:1

For projects that are greater than 1.3 miles from a known breeding site and greater than 500 feet from an adult occurrence but excluding "No Effect" areas.

In addition, as per the *Programmatic Biological Opinion*, “projects and other activities will incorporate measures to minimize their potential direct and indirect effects on CTS. Minimization measures may vary based on environmental factors and site location as determined by the USFWS and [the CDFW].”

#### 8.6.1 APPLICABILITY TO THE PROPOSED PROJECT

Protocol level surveys were conducted at the project site on March 5, April 10, April 19, and May 10, 2001, and February 8, March 27, and May 2, 2002, and no endangered plant species were observed. In addition, M&A conducted rare plant surveys on April 4, May 2, May 21, and July 14, 2018 in accordance with guidelines established by the CDFW (CDFG 2000, 2009), USFWS (USFWS 2000), and the inventory guidelines published by the CNPS 2001 for assessing the effects of proposed developments on rare and endangered plants and plant communities. A list of the plants observed on the project site in 2018 is provided as Table 1. No federally-listed plants have been identified on the project site. Regardless, per *Programmatic Biological Opinion* (op. cit.) even if listed plants are not detected, impacted seasonal wetlands on the project site, the applicant would still be required to be mitigate impacts to “suitable” listed plant habitats.

Impacts to suitable listed plant habitat must be mitigated at a 1.5:1 (replacement to impacts) ratio with occupied or established habitat. To mitigate the loss of 0.40-acre of suitable, but not occupied endangered plant habitat, the applicant has already purchased 0.40-acre of wetland creation/restoration credits and 0.40-acre of vernal pool preservation credits for Sebastopol meadowfoam from the Hale Mitigation Bank (transferred from WMP LLC) (October 22, 2002, as authorized in the USFWS Biological Opinion). In addition, the applicant purchased mitigation

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

credits from the Southwest Santa Rosa Vernal Pool Preserve Bank (equivalent to 2.4 acres of endangered plant habitat and/or 4.8 acres of CTS habitat) (June 10, 2002).

To mitigate the loss of 5.49 acres of CTS habitat on the project site, the applicant purchased 16.47 acres of CTS mitigation credits from the Christina Preserve (November 3, 2006) to satisfy the 3:1 replacement ratio for impacts to CTS habitat, a mitigation ratio consistent with the requirements of the USFWS' 2007 Biological Opinion, and consistent with mitigation policy practiced today by USFWS based upon the distance to known breeding locations. The roadside ditch does not support suitable listed plant habitat or CTS habitat; therefore, additional mitigation credits are not required.

Currently, there are a few shallow topographic low areas on the project site that were created during the initial grading activities which have subsided in some areas. These low areas are regarded as "construction-related" features that are not subject to Corps jurisdiction, as verified by the Corps during the site verification project site visit on December 13, 2018. The Corps (Mr. Will Connor and Mr. Bert Ho) again verified that no regulated wetlands remained on the project site during a site walk with M&A (Mr. Geoff Monk and Ms. Hope Kingma), the USFWS (Mr. Vincent Griego), and CDFW (Ms. Melanie Day) on July 10, 2019. During that project site walk, Mr. Griego also agreed that the CTS impacts had been fully mitigated and that construction related topographic low areas did not constitute CTS breeding habitat.

### **8.7 USFWS Recovery Plan for the Santa Rosa Plain (USFWS 2016)**

In December 2016, the USFWS adopted a formal *Recovery Plan for the Santa Rosa Plain* (Recovery Plan) addressing recovery efforts necessary to protect and otherwise eventually recover the federally-listed Sonoma County DPS of CTS and three vernal pool plants: *Blennosperma bakeri* (Sonoma sunshine); *Lasthenia burkei* (Burke's goldfields); *Limnanthes vinculans* (Sebastopol meadowfoam) (USFWS 2016). All four species are confined almost entirely to the Santa Rosa Plain. The Recovery Plan and its objectives are implemented through cooperative CEQA lead agencies, and through federal nexus agency consultations (e.g., Corps consultations) with the USFWS via Section 7 of the FESA. Any federal nexus agency that consults with the USFWS pursuant to Section 7 will obtain a letter of no effect or a Biological Opinion that provides or denies "incidental take authority." Any conditions of a Biological Opinion issued to the Corps for a pending project are to become conditions of the Corps' permit authorization.

Pursuant to the FESA Incidental take includes loss of listed species' habitat or harm that could occur to a federally-listed species. An Incidental Take Permit allows an otherwise legally sanctioned activity to proceed even if there could be a collateral impact to a federally-listed species. Similarly, any Section 10 FESA consultation with the USFWS, which is allowed for in the FESA for all non-federal entities, that results in Incidental Take authority granted by the USFWS to the non-federal entity, would otherwise include provisions for compliance with the objectives of the Recovery Plan.

The USFWS has determined that the primary threats to the three listed vernal pool plants and the CTS on the Santa Rosa Plain is the reduction and fragmentation of habitat due to urban

development, agricultural land conversion, and habitat degradation that modifies vernal pool hydrology, and colonization of seasonal wetlands by competitive invasive plants. Consequently, the Recovery Plan focuses on these threats. In order to downlist or delist the four species that are imperiled in the Santa Rosa Plain the threats to the species' habitat must be reduced or eliminated. The USFWS criteria for downlisting are based upon preservation of extant vernal pools systems and attending uplands that support wetland complexes. The USFWS has segmented the Santa Rosa Plain into "Core" and "Management Areas" (Figures 5-7) where species preservation, and habitat enhancement and management must occur to recover these four listed species. Core areas comprise the heart of the species historical (and current) range and represent central blocks of contiguously occupied habitat that function to allow for dispersal, genetic interchange between populations, and metapopulation dynamics. Management areas are occupied habitat peripheral to the species' Core areas.

[The following information has been obtained from various personal communications in 2016 and 2017 between Mr. Monk and Mr. Vincent Griego and/or Mr. Ryan Olah of the Sacramento Endangered Species Office of the USFWS. Also, as discussed with Mr. Jason Hanni of USFWS in 2019]. The USFWS is now requiring that projects that impact federally-listed plant species in Core habitats, and/or CTS Core habitat (Exhibits A and B), mitigate through preservation and enhancement of extant listed species habitats in the same Core Area where the impacts will occur. Mitigation for Core area species always takes precedence over Management area species. The USFWS is also now requiring that impacts to specific federally-listed species' Management Areas, be mitigated in the affected species Core areas or its Management Areas as designated in the USFWS' 2016 Santa Rosa Plain Recovery Plan (USFWS 2016) (Mr. Olah pers. comm. with Mr. Monk, January 18, 2017). Also, regarding impacts to CTS habitat, USFWS is now incorporating new Conservation Measures into Biological Opinions that will be in the revised, reissued *Programmatic Biological Opinion*.

#### 8.7.1 APPLICABILITY TO THE PROPOSED PROJECT

The project site is located within the Southern Core area for Sonoma sunshine, Burke's goldfields, Sebastopol meadowfoam, as identified in the USFWS' 2016 Recovery Plan for the Santa Rosa Plain (see Figures 5-7). The mitigation bank (Preserve) that is used to compensate for impacts to suitable listed species seasonal wetlands must be a USFWS approved mitigation bank located within the Southern Core area.

To mitigate the loss of 0.40-acre of suitable, but not occupied endangered plant habitat, the applicant purchased 0.40-acre of wetland creation/restoration credits and 0.40-acre of vernal pool preservation credits for Sebastopol meadowfoam from the Hale Mitigation Bank (transferred from WMP LLC) (October 22, 2002, as authorized in the USFWS Biological Opinion. In addition, the applicant purchased mitigation credits from the Southwest Santa Rosa Vernal Pool Preserve Bank (equivalent to 2.4 acres of endangered plant habitat and/or 4.8 acres of CTS habitat) (June 10, 2002). These mitigation banks are located in the Sebastopol meadowfoam and Baker's blennosperma (Southern) Core Areas of the Santa Rosa Plain.

Per the USFWS *Recovery Plan for the Santa Rosa Plain* (USFWS 2016), the project site is located within the Llano Crescent-Stony Point CTS "Core Area" (Figure 9). Thus, CTS mitigation credits must be purchased from a bank within that Core Area. To mitigate the loss of

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

5.49 acres of CTS habitat on the project site, the applicant purchased 16.47 acres of CTS mitigation credits from the Christina Preserve (November 3, 2006) to satisfy the 3:1 replacement ratio for impacts to CTS habitat, as required by the USFWS Biological Opinion. The Christina Preserve is located within the Llano Crescent-Stony Point CTS “Core Area” so mitigation was appropriately acquired in 2006 that remains consistent with today’s requirements for mitigating impacts to CTS.

## 9. CITY OF SANTA ROSA TREE ORDINANCE

The Santa Rosa City Code, Chapter 17.24, has three articles that pertain to the protection of trees within the City of Santa Rosa to discourage the alteration, removal or relocation of trees, including any heritage, protected, or street tree, without a permit.

### 9.1.1.1 Article III – Prohibitions – Tree alteration, removal, relocation-Permit required.

Article III has provisions that protect trees which are defined as any woody plant with a single trunk diameter of 4 inches or more or a combination of multiple trunks having a total diameter of 8 inches or more. This article also protects the following types of trees:

- (a) Heritage tree which includes any of the following trees, whether located on public or private property, at a diameter equal to or greater than those listed below:

| Species                                         | Diameter |
|-------------------------------------------------|----------|
| Valley oak ( <i>Quercus lobata</i> )            | 6        |
| Coast live oak ( <i>Quercus agrifolia</i> )     | 18       |
| Black oak ( <i>Quercus kelloggii</i> )          | 18       |
| Oregon oak ( <i>Quercus garryana</i> )          | 18       |
| Canyon oak ( <i>Quercus chrysolepis</i> )       | 18       |
| Blue oak ( <i>Quercus douglasii</i> )           | 6        |
| Interior live oak ( <i>Quercus wislizenii</i> ) | 18       |
| Coast redwood ( <i>Sequoia sempervirens</i> )   | 24       |
| Bay ( <i>Umbellularia californica</i> )         | 24       |
| Madrone ( <i>Arbutus menziesii</i> )            | 12       |
| Douglas’s fir ( <i>Pseudotsuga menziesii</i> )  | 24       |
| Red alder ( <i>Alnus rubra</i> )                | 18       |
| White alder ( <i>Alnus rhombifolia</i> )        | 18       |
| Big leaf maple ( <i>Acer macrophyllum</i> )     | 24       |

- (b) Protected tree which means any tree, including a heritage tree, designated to be preserved on an approved development plan or as a condition of approval of a tentative map, a tentative parcel map, or other development.
- (c) Street tree which means any tree having a single trunk circumference greater than 6 and one-quarter inches or a diameter greater than 2 inches, a height of more than 6 feet, and one half or more of its trunk is within a public right of way or within 5 feet of the paved portion of a City street or a public side walk.

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

The following tree species are exempt from the above provisions (except for those that may exist as street trees): acacia, silver maple, poplar, ailanthus, hawthorn, fruitless mulberry, privet, pyracantha, Monterey pine, Monterey cypress, and fruit and nut trees (except walnut trees). A permit is not required for these tree species alteration, removal or relocation.

9.1.1.1 Article IV – Permit Category II – Tree alteration, removal or relocation on property proposed for development-Requirements.

Article IV requires the following:

- (a) All development proposals and subdivision applications shall clearly designate all trees and heritage trees on the property by trunk location and accurate outline of the dripline and shall indicate those trees proposed to be altered, removed or relocated. The reasons for the removal of any tree shall be stated in writing. The development plan or tentative subdivision map shall indicate the genus and species, shape, drip-line and trunk circumference of each tree and heritage tree. The owner of the property and person in control of the proposed development shall protect and preserve each tree and heritage tree situated within the site of the proposed development during the period the application for the proposed development is being considered by the City. The proposed development shall be designed so that:
  - (1) The proposed lots and/or improvements preserve any heritage trees to the greatest possible extent.
  - (2) The road and lot grades protect heritage trees to the greatest extent possible and the existing grad shall be maintained within each such tree's root zone.
- (b) If the proposed project is approved, the recordation of the final map or issuance of a grading permit or building permit for the project shall constitute a permit to alter, remove or relocate any trees designated for alteration, removal or relocation upon the project's approved plans. Any change in the trees to altered, removed or relocated as designated on the approved development plan or tentative map shall only be permitted upon the written approval of the Director or, when the Director determines that the proposed change may be substantial, by the Planning Commission.
- (c) A tree replacement program that will require the applicant to replace trees and heritage trees approved for removal as part of the approval of the project in accordance with subdivision 1; each protected tree removed or damaged shall be replaced in accordance with subdivision 2. For each 6 inches or fraction thereof of the diameter of a tree which was approved for removal, two trees of the same genus and species as the removed tree (or another approved species), each of a minimum 15-gallon container size, shall be planted on the project site. For each 6 inches or fraction thereof of the diameter of a tree which was not approved for removal, four trees of the same genus and species as the removed tree (or another approved species), each of a minimum 15-gallon container size, shall be planted on the project site.

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

- (d) If the development site is inadequate in size to accommodate the replacement trees, the trees shall be planted on public property with the approval of the Director of the City's Recreation and Parks Department. Upon the request of the developer and the approval of the Director, the City may accept an in-lieu payment of \$100.00 per 15-gallon replacement tree on the condition that all such payments shall be used for tree-related educational projects and/or planting programs of the City.
- (e) The following requirements will apply any applicant of property upon which a protected tree is located:
  - (1) Before the start of any clearing, excavation, construction or other work on the site, every protected tree shall be securely fenced off at the "protected perimeter" which shall either be the root zone or other limit as may be established by the City.
  - (2) If the proposed development, including any site work for the development, will encroach upon the protected perimeter of a protected tree, special measures shall be utilized, to allow the roots to obtain oxygen, water and nutrients as needed. Any excavation, cutting, filling, or compaction of the existing ground surface within the protected perimeter, if authorized at all by the Director, shall be minimized and subject to such conditions as may be imposed by the Director. No significant change in existing ground level shall be made within the dripline of a protected tree.
  - (3) No oil, gas, chemicals or other substances that may be harmful to trees shall be stored or dumped within the protected perimeter. All brush, earth and other debris shall be removed in a manner which prevents injury to the protected tree.
  - (4) Underground trenching for utilities shall avoid major support and absorbing tree roots of protected trees. If avoidance is impractical, tunnels shall be made below the roots. Trenches shall be consolidated to USFWS as many units as possible. Trenching within the drip line of protected trees shall be avoided to the greatest extent possible and shall only be done under the at-site directions of a certified arborist.
  - (5) No concrete or asphalt paving shall be placed over the root zones of protected trees. No artificial irrigation shall occur within the root zone of oaks.
  - (6) No compaction of the soil within the root zone of protected trees shall occur.
  - (7) If the trees proposed to be removed can be economically relocated, the developer shall move the trees to a suitable location on the site shown on the approved plans.

9.1.1.2 Article V – Permit category II – Street trees and plantings on and adjacent to public streets and sidewalks.

Article V pertains to the alteration, removal, and relocation of street trees and entails the following:

- (a) As per Section 17-24.075, no tree growing within a planting strip or within any public right-of-way shall be removed or altered by or at the instigation of the abutting property owner or anyone other than a duly authorized officer, agent or employee of the City, except upon issuance of a permit therefore by the Director of Recreation and Parks who may require, as a condition of permitting the removal or alteration of a tree, the posting of security for such work and the planting, at the expense of the permittee, of a tree to replace the one removed from a list approved under Section 17-24.070 of the city code.

As per Section 17-24.080, a permit approved by the Director of Recreation and Parks under the provisions of this article shall be valid for a period of 60 days from its issuance unless a longer term is set forth in the permit. If the work to be done under the permit does not commence prior to the permit's expiration and thereafter expeditiously pursued, the permit shall become null and void.

#### 9.1.2 APPLICABILITY TO THE PROPOSED PROJECT

Currently a total of 14 trees (4 inches or greater diameter at breast height, DBH) occur on the project site, including 13 valley oaks (*Quercus lobata*) and one large Italian cypress (*Cupressus sempervirens*) (18-inch DBH). All trees on the project site are slated for removal. Article 4, Section 17-24.050 Permit Category II-Tree Alteration, Removal, or Relocation on Property Proposed for Development, C (1) requires two 15-gallon size trees to be replanted for every 6 inches of trunk diameter removed. The applicant will be required to obtain a permit from the City of Santa Rosa to remove the trees on the project site. Impacts to trees are regarded as significant. Mitigation that includes tree replacement per the specifications of the City of Santa Rosa Tree Ordinance will mitigate impacts to trees to a level regarded as less than significant.

## 10. REGULATORY REQUIREMENTS PERTAINING TO WATERS OF THE UNITED STATES AND STATE

This section presents an overview of the criteria used by the Corps, the RWQCB, the State Water Resources Control Board (SWRCB), and CDFW to determine those areas within a project area that would be subject to their regulation.

### 10.1 Section 404 of the Clean Water Act

Congress enacted the Clean Water Act "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. §1251(a)). Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the Corps regulates the disposal of dredged or fill material into "waters of the United States" (33 CFR Parts 328 through 330). This requires project applicants to obtain authorization from the Corps prior to discharging dredged or fill materials into any water of the United States.

In the Federal Register "waters of the United States" are defined as, "...all interstate waters including interstate wetlands...intrastate lakes, rivers, streams (including intermittent streams), wetlands, [and] natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce..." (33 CFR Section 328.3).

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

#### Limits of Corps' jurisdiction:

(a) Territorial Seas. The limit of jurisdiction in the territorial seas is measured from the baseline in a seaward direction a distance of three nautical miles. (See 33 CFR 329.12)

(b) Tidal Waters of the United States. The landward limits of jurisdiction in tidal waters:

- (1) Extends to the mean high tide line, or
- (2) When adjacent non-tidal waters of the United States are present, the jurisdiction extends to the limits identified in paragraph (c) of this section.

(c) Non-Tidal Waters of the United States. The limits of jurisdiction in non-tidal waters:

- (1) In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or
- (2) When adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands.
- (3) When the water of the United States consists only of wetlands the jurisdiction extends to the limit of the wetland.

Section 404 jurisdiction in "other waters" such as lakes, ponds, and streams, extends to the upward limit of the ordinary high water mark (OHWM) or the upward extent of any adjacent wetland. The OHWM on a non-tidal water is:

- the "line on shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR Section 328.3[e]).

Wetlands are defined as: "...those areas that are inundated or saturated by surface or ground water at a frequency and duration to support a prevalence of vegetation adapted for life in saturated soil conditions" (33 CFR Section 328.8 [b]). Wetlands usually must possess hydrophytic vegetation (i.e., plants adapted to inundated or saturated conditions), wetland hydrology (e.g., topographic low areas, exposed water tables, stream channels), and hydric soils (i.e., soils that are periodically or permanently saturated, inundated or flooded) to be regulated by the Corps pursuant to Section 404 of the Clean Water Act.

#### 10.1.1 PERMITTING CORPS JURISDICTIONAL AREAS

To remain in compliance with Section 404 of the Clean Water Act, project proponents and property owners (applicants) are required to be permitted by the Corps prior to discharging or otherwise impacting waters of the U.S. In many cases, the Corps must visit a proposed project area (to conduct a "jurisdictional determination") to confirm the extent of area falling under their jurisdiction prior to authorizing any permit for that project area. Typically, at the time the jurisdictional determination is conducted, applicants (or their representative) will discuss the

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

appropriate permit application that would be filed with the Corps for permitting the proposed impact(s) to “waters of the United States.”

Pursuant to Section 404 of the Clean Water Act, the Corps normally provides two alternatives for permitting impacts to the type of “waters of the United States” found in the project area. The first alternative would be to use Nationwide Permits (NWP). NWPs are issued and revoked by the Corps every 5 years. A project that meets conditions for one of the NWPs that exist today, that is authorized for use in a particular 5-year NWP program, is not extendable to the next NWP program. Rather, when revoked, the NWP(s) become null and void, although typically the Corps allows a one-year grandfather extension of the 5-year program for projects that were underway during the NWP validity period.

NWPs are issued on a nationwide basis and authorize minor activities that affect Corps regulated waters. Under NWP, if certain conditions are met, the specified activities can take place without the need for an individual or regional permit from the Corps (33 CFR, Section 235.5[c][2]). In order to use NWP(s), a project must meet 32 general NWP conditions, and all specific conditions pertaining to the NWP being used (as presented at 33 CFR Section 330, Appendices A and C). It is also important to note that pursuant to 33 CFR Section 330.4(e), there may be special regional conditions or modifications to NWPs that could have relevance to individual proposed projects. Finally, pursuant to 33 CFR Section 330.6(a), Nationwide permittees may, and in some cases must, request from the Corps confirmation that an activity complies with the terms and conditions of the NWP intended for use (*i.e.*, must receive “verification” from the Corps).

The second alternative for obtaining a permit from the Corps is to apply for an Individual Permit (33 CFR Section 235.5(2)(b)). Individual Permits are typically valid for 5 years, although if a request is submitted to the Corps prior to expiration, can be extended an additional 5 years. The application process for Individual Permits is extensive and includes public interest review procedures (*i.e.*, public notice and receipt of public comments) and must contain an “alternatives analysis” that is prepared pursuant to Section 404(b) of the Clean Water Act (33 U.S.C. 1344(b)). The alternatives analysis is also typically reviewed by the federal EPA and thus brings another resource agency into the permitting framework. Both the Corps and EPA take the initial viewpoint that there are practical alternatives to the proposed project if there would be impacts to waters of the U.S., and the proposed permitted action is not a water dependent project (*e.g.* a pier or a dredging project). Alternative analyses therefore must provide convincing reasons that the proposed permitted impacts are unavoidable. Individual Permits may be available for use in the event that discharges into regulated waters fail to meet conditions for authorization under a NWP(s).

Prior to finalizing design plans, the applicant needs to be aware that the Corps maintains a policy of “no net loss” of wetlands (waters of the U.S.) from project area development. Therefore, it is incumbent upon applicants that propose to impact Corps regulated areas to submit a mitigation plan that demonstrates that impacted regulated areas would be recreated (*i.e.*, impacts would be mitigated). Typically, the Corps requires mitigation to be “in-kind” (*i.e.*, if a stream channel would be filled, mitigation would include replacing it with a new stream channel), and at a minimum of a 1:1 replacement ratio (*i.e.*, one acre or fraction thereof recreated for each acre or fraction thereof lost). Often a 2:1 replacement ratio is required. Usually the 2:1 ratio is met by

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

recreation or enhancement of an equivalent amount of wetland as is impacted, in addition to a requirement to preserve an equivalent amount of wetland as is impacted by the project. In some cases, the Corps allows “out-of-kind” mitigation if the compensation site has greater value than the impacted site. For example, if project designs call for filling an intermittent drainage, mitigation should include recreating the same approximate jurisdictional area (same drainage widths) at an offsite location or on a set-aside portion of the project area. Finally, there are many Corps approved wetland mitigation banks where wetland mitigation credits can be purchased by applicants to meet mitigation compensation requirements. Mitigation banks have defined service areas and the Corps may only allow their use when a project would have minimal impacts to wetlands.

#### 10.1.2 APPLICABILITY TO THE PROPOSED PROJECT

On March 7, 2002, the Corps confirmed the extent of its jurisdiction pursuant to the Clean Water Act on the project site (Corps File No. 26570N). The Corps verified that the project site supported 0.40-acre of seasonal wetlands. The Corps-stamped jurisdictional map is dated March 7, 2002 (Attachment D). The Revised Wetland Delineation map for Cherry Ranch (Attachment E) shows the roadside ditch and indicates that the ditch was inspected by the Corps on November 20, 2006.

On March 20, 2002, the former applicant submitted an application to the Corps for authorization to fill 0.40-acre of seasonal wetlands on the project site to construct the Cherry Ranch residential development. On May 6, 2002 the Corps issued a permit and confirmed that the project qualified for authorization under NWP 29. The applicant re-applied for a Corps permit in 2007, and the Corps re-issued NWP 29 permit on July 13, 2007 (Corps File No. 26570N).

The project site was graded in 2007 and the applicant submitted the Certificate of Compliance to the Corps on December 17, 2007. Aerial photographs in Attachment C illustrate the project site’s wetland conditions in 2005 prior to any site grading. This aerial photograph clearly shows wetland pools to the northeast of the project site and two relatively small wetlands on the project site. Attachment C also includes a 2018 aerial photograph where the wetland pools to the northeast the project site are still apparent, but there are no visible wetlands on the project site. The wetlands that were previously mapped on the project site had been graded and otherwise “filled” during the mass grading in 2007. The project site has been subjected to routine disturbance on an annual basis after it was graded in 2007.

M&A conducted a delineation of the roadside ditch on July 26, 2018 using criteria prescribed in the Corps’ 1987 *Wetland Delineation Manual* (Corps 1987) and the Corps’ *Regional Supplement for the Arid West Region* (Corps 2008). M&A requests that the Corps verify the extent of the Corps’ jurisdiction of the roadside ditch pursuant to Section 404 of the Clean Water Act. The Preliminary Aquatic Resources Delineation Map of the roadside ditch (dated July 2018) is provided as Attachment F. The delineation map includes the offsite roadside ditch on the east side of Fresno Avenue that will be impacted by the proposed road improvements required by the City of Santa Rosa. This ditch is subject to the Corps’ jurisdiction as it has hydrologic connectivity with other tributaries that eventually flow to the Russian River, a navigable water of the U.S. Thus, it would be regulated as “waters of the U.S.” pursuant to Section 404 of the Clean Water Act.

A condition of the Cherry Ranch development from the City of Santa Rosa is that the project incorporate road improvements, including curb and gutter along the east shoulder of Fresno Avenue (Attachment A). The total impacts to this linear wetland feature will be 2,003 square feet (0.046-acre) (754 linear feet) (Attachment F). To mitigate anticipated impacts to 0.046-acre of the roadside ditch, the applicant purchased 0.05-acre of wetland creation credits from the Hazel Mitigation Preserve (October 2006), and purchased an additional 0.08-acre of wetland creation credits from the Hazel Mitigation Preserve (November 2006).

Currently, there are a few topographic low areas on the project site that were created during the initial grading activities which have subsided in some areas. These low areas are regarded as “construction-related” features, not subject to Corps jurisdiction, as verified by the Corps during the site verification project site visit on December 13, 2018. The Corps (Mr. Will Connor and Mr. Bert Ho) again verified that no regulated wetlands remained on the project site during a site walk with M&A (Mr. Geoff Monk and Ms. Hope Kingma), the USFWS (Mr. Vincent Griego), and CDFW (Ms. Melanie Day) on July 10, 2019. ***During that site visit Mr. Griego stated that the USFWS’ previously issued Biological Opinion remains valid today and can be used by the Corps for the current permit authorization.***

In 2018, M&A submitted a Preconstruction Notice (“permit application”) requesting that the Corps verify that the Cherry Ranch Project meets conditions for use of NWP 29 (Residential Development) as administered by the Corps pursuant to Section 404 of the Clean Water Act. The application only pertained to the impacts to the roadside ditch that would be filled to complete the required road improvements, such as curb and gutter along Fresno Avenue. The Corps issued a permit for impacts to the roadside ditch on July 18, 2019 (Corps File Number 2002 265700N).

## 10.2 Section 401 of the Clean Water Act

The SWRCB and RWQCB regulate activities in “waters of the State” (which includes wetlands) through Section 401 of the Clean Water Act. While the Corps administers a permitting program that authorizes impacts to waters of the U.S., including wetlands and other waters, any Corps permit authorized for a proposed project would be inoperative unless it is a NWP that has been certified for use in California by the SWRCB, or if the RWQCB has issued a project specific certification of water quality. Certification of NWPs requires a finding by the SWRCB that the activities permitted by the NWP will not violate water quality standards individually or cumulatively over the term of the permit (the term is typically for five years). Certification must be consistent with the requirements of the federal Clean Water Act, the CEQA, the CESA, and the SWRCB’s mandate to protect beneficial uses of waters of the State. Any denied (i.e., not certified) NWPs, and all Individual Corps permits, would require a project specific RWQCB certification of water quality.

### 10.2.1 APPLICABILITY TO THE PROPOSED PROJECT

The RWQCB issued a 401 Water Quality Certification for the project on July 5, 2007 (WDID No. 1B02040WNSO). The Certification authorized impacts to 0.40-acre of seasonal wetlands and 0.046-acre of drainage ditch. The Certification stated that “Compensatory mitigation for the Project will be attained through the purchase of 0.40-acre of wetland credits and 0.40-acre of wetland preservation credits from the Hale Mitigation Bank. An additional 0.08-acre of wetland

creation credits will be purchased from the Hazel Mitigation Bank.” The applicant has purchased these required mitigation credits and provided proof of purchase to the RWQCB.

On November 16, 2006, the City of Santa Rosa adopted the Mitigated Negative Declaration (SCH No. 2006082063) for the previously-proposed residential development project to comply with CEQA. The project site was graded in 2007. Aerial photographs in Attachment C illustrate the site conditions in 2005 prior to any site grading, and the site conditions in 2018 showing that the RWQCB-regulated wetlands that were previously mapped on the project site had been filled. However, the applicant did not fill the roadside ditch in 2007, and as the prior 2007 Certification of Water Quality is now expired, the applicant will re-apply for Water Quality Certification to impact the roadside ditch for the City-required road improvements. A new 401 Water Quality Certification application will be submitted to the RWQCB upon adoption of the newly proposed project pursuant to the CEQA by the City of Santa Rosa. All permit conditions in the 401 Water Quality Certification will be implemented by the proposed project.

### 10.3 Porter-Cologne Water Quality Control Act

The uncontrolled discharge of pollutants into impaired water bodies is considered particularly detrimental. According to the U.S. EPA, sediment is one of the most widespread pollutants contaminating U.S. rivers and streams. Sediment runoff from construction sites is 10 to 20 times greater than from agricultural lands and 1,000 to 2,000 times greater than from forest lands (EPA 2005). Consequently, the discharge of stormwater from large construction sites is regulated by the RWQCB under the federal CWA and California’s Porter-Cologne Water Quality Control Act.

The Porter-Cologne Water Quality Control Act, Water Code § 13260, requires that “any person discharging waste, or proposing to discharge waste, that could affect the waters of the State to file a report of discharge” with the RWQCB through an application for waste discharge (Water Code Section 13260(a)(1). The term “waters of the State” is defined as any surface water or groundwater, including saline waters, within the boundaries of the State (Water Code § 13050(e)). It should be noted that pursuant to the Porter-Cologne Water Quality Control Act, the RWQCB also regulates “isolated wetlands,” or those wetlands considered to be outside of the Corps’ jurisdiction pursuant to the SWANCC decision (see Corps Section above).

The RWQCB generally considers filling in waters of the State to constitute “pollution.” Pollution is defined as an alteration of the quality of the waters of the state by waste that unreasonably affects its beneficial uses (Water Code §13050(1)). The RWQCB litmus test for determining if a project should be regulated pursuant to the Porter-Cologne Water Quality Control Act is if the action could result in any “threat” to water quality.

The RWQCB requires complete pre- and post-development Best Management Practices Plan (BMPs) of any portion of the project site that is developed. This means that a water quality treatment plan for the pre- and post-developed project site must be prepared and implemented. Preconstruction requirements must be consistent with the requirements of the National Pollutant Discharge Elimination System (NPDES). That is, a *Stormwater Pollution Prevention Plan* (SWPPP) must be developed prior to the time that a site is graded (see NPDES section below). In

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

addition, a post construction BMPs plan, or a Stormwater Management Plan (SWMP) must be developed and incorporated into any site development plan.

#### 10.3.1 APPLICABILITY TO THE PROPOSED PROJECT

Since any “threat” to water quality could conceivably be regulated pursuant to the Porter-Cologne Water Quality Control Act, care will be required when constructing the proposed project to be sure that adequate pre-and post-construction BMPs are incorporated into the project implementation plans. Since the proposed project will be required to obtain a new Clean Water Act Section 401 permit from the RWQCB, the project will also be required to submit a Storm Water Control Plan (SWCP) to the RWQCB. A Section 401 permit will not be issued by the RWQCB until the SWCP meets the RWQCB’s requirements for stormwater treatment post construction. This will ensure that the project will not, post construction, result in impacts to downstream receiving waters.

It should also be noted that prior to issuance of any permit from the RWQCB this agency will require submittal of a Notice of Determination from the City of Santa Rosa indicating that the current project has been reviewed pursuant to CEQA. The pertinent sections of the CEQA document (typically the biology section) are often submitted to the RWQCB for review prior to the time this agency will issue a permit for a proposed project.

### 10.4 California Department of Fish and Wildlife Protections

#### 10.4.1 SECTION 1602 OF CALIFORNIA FISH AND GAME CODE

Pursuant to Section 1602 of the California Fish and Game Code: “An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, unless all of the following occur:

- (1) CDFW receives written notification regarding the activity in the manner prescribed by CDFW. The notification shall include, but is not limited to, all of the following:
  - (A) A detailed description of the project’s location and a map.
  - (B) The name, if any, of the river, stream, or lake affected.
  - (C) A detailed project description, including, but not limited to, construction plans and drawings, if applicable.
  - (D) A copy of any document prepared pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.
  - (E) A copy of any other applicable local, state, or federal permit or agreement already issued.
  - (F) Any other information required by CDFW” (Fish & Game Code 2014).

Please see Section 1602 of the current California Fish and Game Code for further details.

Please also note that while not stated in the regulations above, CDFW typically considers its jurisdiction to include riparian vegetation (that is, the trees and bushes growing along the stream). Thus, any proposed activity in a natural stream channel that would substantially adversely affect an

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

existing fish and/or wildlife resource, including its riparian vegetation, would require entering into a Streambed Alteration Agreement (SBAA) with CDFW prior to commencing with work in the stream. However, prior to authorizing such permits, CDFW typically reviews an analysis of the expected biological impacts, any proposed mitigation plans that would be implemented to offset biological impacts and engineering and erosion control plans.

#### 10.4.2 APPLICABILITY TO THE PROPOSED PROJECT

There are no streams or drainages on the project site that would likely be regulated by CDFW. Hence, a SBAA with CDFW is not necessary for this project.

## 11. STATE WATER RESOURCES CONTROL BOARD (SWRCB)/RWQCB – STORM WATER MANAGEMENT

### 11.1 Construction General Permit

While federal Clean Water Act NPDES regulations allow two permitting options for construction related stormwater discharges (individual permits and General Permits), the State Water Resources Control Board (SWRCB) has elected to adopt only one statewide Construction General Permit at this time that will apply to all stormwater discharges associated with construction activity, except from those on Tribal Lands, in the Lake Tahoe Hydrologic Unit, and those performed by the California Department of Transportation (CalTrans).

The Construction General Permit requires all dischargers where construction activity disturbs greater than one acre of land or those sites less than one acre that are part of a common plan of development or sale that disturbs more than one acre of land surface to:

1. Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies BMPs that will prevent all construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off site into receiving waters.
2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation. Achieve quantitatively-defined (i.e., numeric) pollutant-specific discharge standards, and conduct much more rigorous monitoring based on the project's projected risk level.
3. Perform inspections of all BMPs.

This Construction General Permit is implemented and enforced by the nine RWQCBs. It is also enforceable through citizens' suits and represents a dramatic shift in the State Water Board's approach to regulating new and redevelopment sites, imposing new affirmative duties and fixed standards on builders and developers.

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

### Types of Construction Activity Covered by the Construction General Permit

- clearing,
- grading,
- disturbances to the ground such as stockpiling, or excavation that results in soil disturbances of at least one acre or more of total land area.

Construction activity that results in soil disturbances to a smaller area would still be subject to this General Permit if the construction activity is part of a larger common plan of development that encompasses greater than one acre of soil disturbance, or if there is significant water quality impairment resulting from the activity.

#### Construction activity does not include:

- routine maintenance to maintain original line and grade,
- hydraulic capacity, or original purpose of the facility,
- nor does it include emergency construction activities required to protect public health and safety.

The Construction General Permit includes several “post-construction” requirements. These requirements entail that site designs provide no net increase in overall site runoff and match pre-project hydrology by maintaining runoff volume and drainage concentrations. To achieve the required results where impervious surfaces such as roofs and paved surfaces are being increased, developers must implement non-structural off-setting BMPs, such as landform grading, site design BMPs, and distributed structural BMPs (bioretention cells, rain gardens, and rain cisterns). This “runoff reduction” approach is essentially a State Water Board-imposed regulatory requirement to implement Low Impact Development (“LID”) design features. Volume that cannot be addressed using non-structural BMPs must be captured in structural BMPs that are approved by the RWQCB.

Improving the quality of site runoff is necessary to improve water quality in impaired and threatened streams, rivers, and lakes (that is, water bodies on the EPA’s 303(d) list). The RWQCB prioritizes the water bodies on the 303(d) list according to potential impacts to beneficial uses. Beneficial uses can include a wide range of uses, such as nautical navigation; wildlife habitat; fish spawning and migration; commercial fishing, including shellfish harvesting; recreation, including swimming, surfing, fishing, boating, beachcombing, and more; water supply for domestic consumption or industrial processes; and groundwater recharge, among other uses. The State is required to develop action plans and establish Total Maximum Daily Loads (TMDLs) to improve water quality within these impaired water bodies. The TMDL is the quantity of a pollutant that can be safely assimilated by a water body without violating the applicable water quality standards.

Pursuant to the CWA, the RWQCB regulates construction discharges under the National Pollutant Discharge Elimination System (NPDES). The project sponsor of construction or other

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

activities that disturb more than one acre of land must obtain coverage under NPDES Construction General Permit Order 2009-0009-DWQ, administered by the RWQCB<sup>1</sup>.

#### 11.1.1 APPLICABILITY TO THE PROPOSED PROJECT

The project will impact greater than one acre and as such is required to obtain coverage under the SWRCB administered Construction General Permit. To obtain coverage the applicant (typically through its civil engineer) must electronically file a number of permit-related compliance documents (Permit Registration Documents (PRDs), including a Notice of Intent (NOI), a risk assessment, site map, signed certification, SWPPP, Notice of Termination (NOT), NAL exceedance reports, and other site-specific PRDs that may be required. The PRDs must be prepared by a Qualified SWPPP Practitioner (QSP) or Qualified SWPPP Developer (QSD) and filed by a Legally Responsible Person (LRP) on the RWQCB's Stormwater Multi-Application Report Tracking System (SMARTS). (QSDs are typically civil engineers, professional hydrologists, engineering geologists, or landscape architects.) Once filed, these documents become immediately available to the public for review and comment. At a minimum, the SWPPP shall identify BMPs for implementation during project construction that are in accordance with the applicable guidance and procedures contained in the California Stormwater Quality Association's *California Stormwater Best Management Practices Handbook* (2015). Implementation of the SWPPP also keeps the project in compliance with the Porter-Cologne Water Quality Control Act (see Section 10.3 above) since implementation of the SWPPP prevents impacts to downstream receiving waters during the construction of the project.

## 12. STORM WATER LOW IMPACT DEVELOPMENT (SWLID)

Participating cities in Sonoma County within the Santa Rosa plain use the *Guidelines for the Standard Urban Storm Water Mitigation Plan (SUSMP)*, *Storm Water Best Management Practices for New Development and Redevelopment for the Santa Rosa Area and Unincorporated Areas around Petaluma and Sonoma* published on June 3, 2005. However, the City of Santa Rosa has updated the process using the 2017 Storm Water Low Impact Development (SWLID) guidelines to better facilitate the processing of Clean Water Act permits. California's North Coast RWQCB routinely uses the SWLID Design Manual as an example program on how post-construction BMPs should be implemented.

The 2017 SWLID provides technical guidance for project designs that require the implementation of permanent storm water BMPs. This 2017 SWLID supersedes both the 2005 SUSMP guidelines and the 2011 version of the SWLID manual. To reduce storm water pollution, protect water quality of local waterways, and promote groundwater recharge, SWLID integrates specialized landscape features into an urban environment and directs runoff into these features where it can soak into the ground. This design approach mimics the storm water benefits of the natural environment. Specialized swales, planters, and raingardens provide beauty while

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<sup>1</sup> CGP Order 2009-0009-DWQ remains in effect, but has been amended by CGP Order 2009-0014-DWQ, effective February 14, 2011, and CGP Order 2009-0016-DWQ, effective July 17, 2012. The first amendment merely provided additional clarification to Order 2009-0009-DWQ, while Order 2009-0016-DWQ eliminated numeric effluent limits on pH and turbidity (except in the case of active treatment systems), in response to a legal challenge to the original order.

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

also slowing runoff and removing pollutants. Plants and microbes that live in healthy soil use pollutants as nutrients, removing them from runoff.

The SWLID is formally defined as:

*A development site design strategy with a goal of maintaining or reproducing the predevelopment hydrologic system through the use of design techniques to create a functionally equivalent hydrologic setting. Hydrologic functions of storage, infiltration, and groundwater recharge, as well as the volume and frequency of discharges are maintained through the use of integrated and distributed small-scale storm water retention and detention areas, reduction of impervious surfaces, and the lengthening of flow paths, and runoff time.*

The SWLID Design Manual is intended to satisfy the specific requirements of “Order No. R1-2015-0030, NPDES No. CA-0025054 NPDES permit and waste discharge requirements for discharges from the municipal separate storm sewer systems.” Additional design requirements imposed by governing agencies, such as local grading ordinances, CAL Green, CEQA, 401 permitting, and hydraulic design for flood control still apply as appropriate.

The intention of the Design Manual is to promote the following SWLID goals:

- Minimize the adverse impacts from storm water runoff on water quality, the biological integrity of receiving waters, and the beneficial uses of water bodies.
- Minimize the percentage of impervious surfaces on land development projects and implement mitigation measures to mimic the pre-development water balance through infiltration, evapotranspiration, and capture and reuse of storm water.
- Minimize pollutant loadings from impervious surfaces such as roof tops, parking lots, and roadways through the use of properly designed, technically appropriate BMPs, including source control BMPs or good housekeeping practices, SWLID planning and design strategies, and treatment control BMPs.
- Proper selection, design and maintenance of treatment control BMPs, and hydromodification control BMPs to address pollutants generated by land development, minimizing post-development surface flows and velocities, assuring long-term functionality of BMPs, and avoiding the breeding of vectors.

## **12.1 Projects That Trigger Requirements**

### *Geographic Areas*

The requirements set forth in this SWLID Design Manual apply to projects within the jurisdiction of City of Santa Rosa, City of Healdsburg, Town of Windsor, City of Cotati, City of Sebastopol, City of Cloverdale, City of Ukiah, and City of Rohnert Park as well as the portions of the County of Sonoma as shown in Attachment C of the NPDES MS4 Permit Order No. R1-2015-0030. Although the Sonoma County Water Agency is named in the Permit, it does not have land use authority.

This SWLID manual does not apply to the areas south of the Russian River/Laguna De Santa Rosa watershed boundary, including portions of Petaluma, Sonoma, and the southern portion of

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

the County of Sonoma as they are outside the jurisdiction of the North Coast RWQCB and have distinct design requirements.

### *Project Triggers and Exemptions*

Since SWLID features are designed to mitigate for the permanent impacts caused by impervious surfaces, the total amount of impervious surface must be considered when determining whether or not a project triggers SWLID requirements. This evaluation must include the built-out project condition (including homes or structures that will be completed under separate building permits) as well as all phases of a phased project. Note that tributary areas where no impervious surface will be added or replaced are not required to install BMPs.

### *Impervious Surface*

Impervious surfaces are defined as an area that has been modified such that storm water percolation into underlying soils is reduced or prevented. Examples of surfaces include concrete, asphalt, and roof tops. Existing gravel on a project site prior to the proposed project is considered to be pervious unless documentation is provided that demonstrates that it is impervious. Gravel placed as part of the proposed project is considered to be impervious unless documentation is provided to verify that it is pervious.

### *Site Determination*

For the purposes of this Manual, the impacts that must be accounted for in the SWLID design includes everything within the project site of all improved parcels as well as all offsite or associated public improvements, such as trenching and repaving for utility connections.

#### 12.1.1 APPLICABILITY TO THE PROPOSED PROJECT

The City of Santa Rosa will require that a SWLID Plan be submitted that integrates the 2017 SWLID Design Manual guidelines. The proposed project will create more than one acre of impervious surface and will therefore be conditioned to meet treatment and hydromodification control requirements. The hydromodification control design goal requires the project to capture and/or infiltrate and/or reuse one hundred percent of the post project impervious surface runoff volume.

The proposed project will be designed to implement permanent water quality treatment and hydro-modification control BMPs set forth in the 2017 SWLID; such as treatment of all runoff generated by a one-inch rainfall event in a 24-hour time period falling on all impermeable surfaces, and the exit off the project site of all such storm water at flow rates similar to predevelopment conditions.

## **13. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REGULATIONS**

A CEQA lead agency must determine if a proposed activity constitutes a project requiring further review pursuant to the CEQA. Pursuant to CEQA, a lead agency would have to determine if there could be significant adverse impacts to the environment from a proposed project. Typically, if within the city limits, the city would be the CEQA lead agency. If a discretionary permit (i.e., conditional use permit) would be required for a project (e.g. an occupancy permit must be issued), the lead agency typically must determine if there could be significant environmental impacts. This is usually accomplished by an "Initial Study." If there could be

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

significant environmental impacts, the lead agency must determine an appropriate level of environmental review prior to approving and/or otherwise permitting the impacts. In some cases, there are “Categorical Exemptions” that apply to the proposed activity; thus the activity is exempt from CEQA. The Categorical Exemptions are provided in CEQA. There are also Statutory Exemptions in CEQA that must be investigated for any proposed project. If the project is not exempt from CEQA, the lowest level of review typically reserved for projects with no significant effects on the environment would be for the lead agency to prepare a “Negative Declaration.” If a proposed project would have only minimal impacts that can be mitigated to a level of no significance pursuant to the CEQA, then a “Mitigated Negative Declaration” is typically prepared by the lead agency. Finally, those projects that may have significant effects on the environment, or that have impacts that can’t be mitigated to a level considered less than significant pursuant to the CEQA, typically must be reviewed via an Environmental Impact Report (EIR). All CEQA review documents are subject to public circulation, and comment periods.

Section 15380 of CEQA defines “endangered” species as those whose survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. “Rare” species are defined by CEQA as those who are in such low numbers that they could become endangered if their environment worsens; or the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered “threatened” as that term is used in FESA. The CEQA Guidelines also state that a project will normally have a significant effect on the environment if it will “substantially affect a rare or endangered species of animal or plant or the habitat of the species.” The significance of impacts to a species under CEQA, therefore, must be based on analyzing actual rarity and threat of extinction to that species despite its legal status or lack thereof.

#### 13.1.1 APPLICABILITY TO THE PROPOSED PROJECT

This report has been prepared as a Biology section that is suitable for incorporation by the CEQA lead agency (in this case the City of Santa Rosa) into a CEQA review document such as a Mitigated Negative Declaration or an Environmental Impact Report. This document addresses potential impacts to species that would be defined as endangered or rare pursuant to Section 15380 of the CEQA.

### 14. IMPACTS ANALYSIS

Below the criteria used in assessing impacts to Biological Resources is presented.

#### 14.1 Significance Criteria

A significant impact is determined using CEQA and CEQA Guidelines. Pursuant to CEQA §21068, a significant effect on the environment means a substantial, or potentially substantial, adverse change in the environment. Pursuant to CEQA Guideline §15382, a significant effect on the environment is further defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. Other

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

federal, state, and local agencies' considerations and regulations are also used in the evaluation of significance of proposed actions.

Direct and indirect adverse impacts to biological resources are classified as "significant," "potentially significant," or "less than significant." Biological resources are broken down into four categories: vegetation, wildlife, threatened and endangered species, and regulated "waters of the United States" and/or stream channels.

#### 14.1.1 THRESHOLDS OF SIGNIFICANCE

##### 14.1.1.1 Plants, Wildlife, Waters

In accordance with Appendix G (Environmental Checklist Form) of the CEQA Guidelines, implementing the project would have a significant biological impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.
- Have a substantial adverse effect on federally protected "wetlands" as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

##### 14.1.1.2 Waters of the United States and State.

Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the Corps regulates the discharge of dredged or fill material into waters of the U.S., which includes wetlands, as discussed in the bulleted item above, and also includes "other waters" (stream channels, rivers) (33 CFR Parts 328 through 330). Substantial impacts to Corps regulated areas on a project site would be considered a significant adverse impact. Similarly, pursuant to Section 401 of the Clean Water Act, and to the Porter-Cologne Water Quality Control Act, the RWQCB regulates impacts to waters of the state. Thus, substantial impacts to RWQCB regulated areas on a project site would also be considered a significant adverse impact.

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

#### 14.1.1.3 Stream Channels

Pursuant to Section 1602 of the California Fish and Game Code, CDFW regulates activities that divert, obstruct, or alter stream flow, or substantially modify the bed, channel, or bank of a stream which CDFW typically considers to include riparian vegetation. Any proposed activity that would result in substantial modifications to a natural stream channel would be considered a significant adverse impact.

### 15. IMPACT ASSESSMENT AND PROPOSED MITIGATION

In this section, we discuss potential impacts to sensitive biological resources including special-status animal species and waters of the U.S. and/or State. We follow each impact with a mitigation prescription that when implemented would reduce impacts to a level regarded as less than significant pursuant to CEQA. This impact analysis is based on the Cherry Ranch Development Plan, prepared by Cinquini & Passarino (Attachment A).

#### 15.1 Impact BIO-1. Development of the project would have a significant adverse impact on suitable rare plant habitat (Significant)

Protocol-level surveys were conducted at the project site on March 5, April 10, April 19, and May 10, 2001, and February 8, March 27, and May 2, 2002, and no endangered plant species were observed. In addition, to update the plant surveys, M&A conducted follow-up rare plant surveys on April 4, May 2, May 21, and July 15, 2018 in accordance with guidelines established by the California Department of Fish and Wildlife (CDFG 2000, 2009), USFWS (USFWS 2000), and the inventory guidelines published by the CNPS (CNPS 2001) for assessing the effects of proposed developments on rare and endangered plants and plant communities. *No rare plants have ever been found during any plant survey conducted on this project site.*

Therefore, the project site is not considered to support “occupied” habitat for federally-listed plant species. Regardless, the USFWS Biological Opinion states that the project site supported 0.40-acre of potential Sebastopol meadowfoam, Sonoma sunshine, and Burke's goldfields habitat and required mitigation for impacts to “suitable” listed vernal pool plant habitat. Accordingly, impacts to “suitable” listed vernal pool plant habitat would be *considered significant pursuant to CEQA*. This impact has been mitigated to a level considered less than significant.

#### 15.2 Mitigation Measure BIO-1. Impacts to suitable rare plant habitat

To mitigate the loss of 0.40-acre of suitable, but not occupied endangered plant habitat, the applicant purchased 0.40-acre of wetland creation/restoration credits and 0.40-acre of vernal pool preservation credits for Sebastopol meadowfoam from the Hale Mitigation Bank (transferred from WMP LLC) (October 22, 2002), as authorized in the USFWS Biological Opinion. In addition, the applicant purchased mitigation credits from the Southwest Santa Rosa Vernal Pool Preserve Bank (equivalent to 2.4 acres of endangered plant habitat and/or 4.8 acres of CTS habitat) (June 10, 2002). The roadside ditch does not support suitable listed plant habitat; therefore, additional mitigation credits for impacts to listed plant habitat is not required.

*Implementation of this mitigation measure reduced impacts to “suitable” listed vernal pool plant habitat to a level considered less than significant.*

### **15.3 Impact BIO-2. Development of the project would have a significant adverse impact on CTS (Significant)**

California tiger salamander surveys were conducted during the months of December 2001 through February 7, 2002. During surveys conducted on February 7 and 8, 2002, Dr. Fawcett observed more than 20 CTS larvae in a pool on the project site. The USFWS emergency listed CTS as endangered on July 22, 2002. The emergency listing of the CTS resulted in requirement for a CTS salvage operation that was subsequently conducted in 2004/2005 under the guidance of the USFWS and the CDFG. The USFWS issued a Biological Opinion (BO) (File No. 1-1-06-F-0054) to the Corps on February 14, 2006. As required in that BO additional CTS salvage was required over the winter and spring of 2005/2006. This second salvage effort was to be completed prior to mass grading of the project site. Under the guidance of the USFWS and the CDFG, CTS larvae were collected from the on-site breeding pool using dip-nets and funnel traps and re-located to the Todd Road Preserve.

The USFWS Biological Opinion stated that the 6.63-acre project site supported 5.49 acres of tiger salamander habitat. The 5.49 acres included breeding habitat as well as upland, foraging, and dispersal habitat. Approximately 1.14 acres of the 6.63-acre site supported a parking lot and buildings, which were not regarded as CTS habitat. Accordingly, impacts to CTS habitat would be *considered significant pursuant to CEQA*. This impact has been mitigated to a level considered less than significant.

### **15.4 Mitigation Measure BIO-2. Impacts to CTS**

The USFWS' Biological Opinion states that the 6.63-acre project site supported 5.49 acres of CTS habitat. The 5.49 acres included breeding habitat as well as upland, foraging, and dispersal habitat. Approximately 1.14 acres of the 6.63-acre site supported a parking lot and buildings, which were not regarded as CTS habitat. To mitigate the loss of 5.49 acres of CTS habitat on the project site, the applicant purchased 16.47 acres of CTS mitigation credits from the Christina Preserve to satisfy the 3:1 replacement ratio for impacts to CTS habitat, as required by the USFWS' Biological Opinion. Having obtained all the necessary resource agency permits and having purchased all the required mitigation credits, the project site was graded in 2007, removing the previously occupied CTS habitats on the project site. The roadside ditch was included in the CTS habitat acreage, as the APN acreage was used to calculate CTS mitigation requirements. The APN extends to the pavement section of Fresno Avenue.

Currently, there are a few shallow topographic low areas on the project site that were created during the initial grading activities which have subsided in some areas. These low areas are regarded as "construction-related" features that are not subject to Corps jurisdiction, as verified by the Corps during the site verification project site visit on December 13, 2018. The Corps (Mr. Will Connor and Mr. Bert Ho) again verified that no regulated wetlands remained on the project site during a site walk with M&A (Mr. Geoff Monk and Ms. Hope Kingma), the USFWS (Mr. Vincent Griego), and CDFW (Ms. Melanie Day) on July 10, 2019. During that project site walk, Mr. Griego also agreed that the CTS impacts had been fully mitigated.

To obtain CESA Incidental Take Permit coverage for the currently proposed project, the applicant will submit the USFWS Biological Opinion to the CDFW and request a "Consistency

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

Determination” to obtain an CESA incidental take coverage for this project. Fish and Game Code Section 2080.1 states the requirements and procedures for a 2080.1 Consistency Determination. 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 of the CDFW 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 CDFW Director for a determination as to whether the federal document is "consistent" with CESA. If CDFW determines that the federal opinion or permit is not consistent with CESA, then the applicant must apply for a state CESA permit under Section 2081(b).

Mitigation requirements for impacts to CTS associated with this project site were originally agreed to by Mr. Carl Wilcox and Mr. Liam Davis of the California Department of Fish and Game (CDFG). Pursuant to the USFWS’ Biological Opinion, mitigation for impacts to CTS was fully implemented at a 3:1 replacement to impacts ratio. In addition, 3:1 mitigation is currently consistent with both CDFW and USFWS policies for mitigating impacts to CTS dispersal habitat. Accordingly, no new mitigation for impacts to CTS are likely to be required by CDFW over that which already purchased for this project prior to the time it was mass graded in 2007.

*Implementation of this mitigation measure reduced impacts to CTS habitat to a level considered less than significant.*

### **15.5 Impact BIO-3. Development of the project would have a potentially significant adverse impact on tree nesting raptors (Potentially Significant)**

While unlikely, white-tailed kite, red-tailed hawk (*Buteo jamaicensis*), red shouldered hawk (*Buteo lineatus*), and possibly other raptor species could nest on the project site or within a zone of influence of the project site (within 300 feet of the project site). The zone of influence includes those areas off the project site where raptors could be disturbed by earth-moving vibrations or noise. Raptors (that is, birds of prey) are protected under the Migratory Bird Treaty Act (50 CFR 10.13) and their eggs and young are protected under California Fish and Game Codes Sections 3503, 3503.5.

Potential impacts from the proposed project include disturbance to nesting raptors, and possibly death of adults and/or young. No nesting raptors (birds of prey) have been identified on the proposed project site; however, no specific surveys for nesting raptors have been conducted. As such, in the absence of survey results, it must be concluded that impacts to nesting raptors from the proposed project would be *potentially significant pursuant to CEQA*. This impact could be mitigated to a level considered less than significant.

### **15.6 Mitigation Measure BIO-3. Tree Nesting Raptors**

To avoid impacts to nesting raptors, a nesting surveys shall be conducted 15 days prior to commencing with construction work, if this work would commence between February 1 and August 31. The raptor nesting surveys shall include examination of the ruderal habitats on the site where ground nesting raptors could construct a nest [e.g. northern harrier (*Circus cyaneus*)]. In addition, all trees on and within 300 feet of the project site (not just trees slated for removal)

shall be surveyed for nesting raptors. A nest survey report shall be prepared upon completion of the survey and provided to the City of Santa Rosa with any recommendations required for establishment of protective buffers as necessary to protect nesting raptors (or other birds).

If nesting raptors are identified during the surveys, the dripline of the nest tree must be fenced with orange construction fencing (provided the tree is on the project site), and a 200-foot radius around the nest tree must be staked with bright orange lath or other suitable staking. If the tree is located off the project site, then the buffer shall be demarcated per above where the buffer occurs on the project site. *The size of the buffer may be altered if a qualified raptor biologist conducts behavioral observations and determines the nesting raptors are well acclimated to disturbance.* If this occurs, the raptor biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting raptors. No construction or earth-moving activity shall occur within the established buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by July 15. This date may be earlier or later, and would have to be determined by a qualified raptor biologist. If a qualified biologist is not hired to watch the nesting raptors, then the buffers shall be maintained in place through the month of August and work within the buffer can commence September 1.

*Implementation of this mitigation measure would reduce impacts to nesting raptors to a level considered less than significant.*

#### **15.7 Impact BIO-4. Development of the project would have a potentially significant adverse impact on common nesting birds (Potentially Significant)**

Common nesting birds such as mourning dove (*Zenaida macroura*), California scrub jay (*Aphelocoma californica*), and house finch (*Haemorhous mexicanus*), among others could be impacted by the proposed project. Common birds and their active nests are protected under California Fish and Game Code (Sections 3503, 3503.5), and the federal Migratory Bird Treaty Act. Impacts to nesting birds, their eggs, and/or young caused by implementation of the proposed project would be **regarded as potentially significant**. These impacts could be mitigated to levels considered less than significant pursuant to CEQA.

#### **15.8 Mitigation Measure BIO-4. Nesting Passerine Birds**

A nesting survey should be conducted on the project site and within a zone of influence around the project site. The zone of influence includes those areas off the project site where birds could be disturbed by earth-moving vibrations or noise. Accordingly, the nesting survey(s) must cover the project site and an area around the project site boundary. If project site disturbance associated with the project would commence between March 1 and August 31, the nesting surveys should be completed 15 days prior to commencing with the work. If common birds are identified nesting on or adjacent to the project site, a non-disturbance buffer of 75 feet should be established or as otherwise prescribed by a qualified ornithologist. Modifications to the 75-foot buffer would have to, nonetheless protect the nesting birds such that nest failure does not result from project disturbance. The buffer should be demarcated with painted orange lath or via the installation of orange construction fencing. Disturbance within the buffer should be postponed until it is determined by a qualified ornithologist that the young have fledged and have attained sufficient flight skills to leave the area or that the nesting cycle has otherwise completed. A nest survey

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

report shall be prepared upon completion of any required survey and provided to the City of Santa Rosa with any recommendations required for establishment of protective buffers as necessary to protect nesting birds.

Typically, most passerine birds in the region of the project site are expected to complete nesting by August 1. However, many species can complete nesting by the end of June or in early to mid-July. Regardless, nesting buffers should be maintained until August 31 unless a qualified ornithologist determines that young have fledged and are independent of their nests at an earlier date. If buffers are removed prior to August 31, the qualified biologist conducting the nesting surveys should prepare a report that provides details about the nesting outcome and the removal of buffers. This report should be submitted to the City of Santa Rosa prior to the time that nest protection buffers are removed if the date is before September 1.

*Implementation of this mitigation measure would reduce impacts to nesting common bird species to a level considered less than significant.*

#### **15.9 Impact BIO-5. Development of the project would have a potentially significant adverse impact on protected trees (Significant)**

Currently a total of 14 trees (4 inches or greater diameter at breast height, DBH) occur on the project site, including 13 valley oaks (*Quercus lobata*) and one large Italian cypress (*Cupressus sempervirens*) (18-inch DBH). All trees are slated for removal. Impacts to protected trees resulting from the proposed project would be **regarded as significant**. These impacts could be mitigated to levels considered less than significant pursuant to CEQA.

##### **15.10 Mitigation Measure BIO-5. Protected Trees**

Article 4, Section 17-24.050 Permit Category II-Tree Alteration, Removal, or Relocation on Property Proposed for Development, C (1) requires two 15-gallon size trees to be replanted for every 6 inches of trunk diameter removed. Applicant will be required to obtain a permit from the City of Santa Rosa prior to removing the trees on the project site.

*Implementation of this mitigation measure would reduce impacts to trees to a level considered less than significant.*

#### **15.11 Impact BIO-6. The Development Project Would Have a Significant Impact on Waters of the United States and/or State (Significant)**

M&A conducted a delineation of the roadside ditch on July 26, 2018, using criteria prescribed in the Corps' 1987 *Wetland Delineation Manual* (Corps 1987) and the Corps' *Regional Supplement for the Arid West Region* (Corps 2008). M&A requests that the Corps verify the extent of the Corps' jurisdiction of the roadside ditch pursuant to Section 404 of the Clean Water Act. The Preliminary Aquatic Resources Delineation Map of the roadside ditch (dated July 2018) is provided as Attachment F. The delineation map includes the offsite roadside ditch on the east side of Fresno Avenue that will be impacted by the proposed road improvements required by the City of Santa Rosa. This ditch is subject to the Corps' jurisdiction as it has hydrologic connectivity with other tributaries that eventually flow to the Russian River, a navigable water of

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

the U.S. Thus, it would be regulated as “waters of the U.S.” pursuant to Section 404 of the Clean Water Act.

A condition of the Cherry Ranch development from the City of Santa Rosa is that the project incorporate road improvements, including curb and gutter along the east shoulder of Fresno Avenue (Attachment A). The total impacts to this linear wetland feature will be 2,003 square feet (0.046-acre) (754 linear feet) (Attachment F). Impacts to areas of Corps and RWQCB jurisdiction pursuant to Sections 404 and 401 of the Clean Water Act would be ***regarded as significant***. Those impacts could be mitigated to a level considered less than significant pursuant to CEQA.

#### **15.12 Mitigation Measure BIO-6. Impacts to Waters of the United States and/or State**

On March 20, 2002, the former applicant submitted an application to the Corps for authorization to fill 0.40-acre of seasonal wetlands on the project site to construct the Cherry Ranch residential development. On May 6, 2002, the Corps issued a permit and confirmed that the project qualified for authorization under NWP 29. The applicant re-applied for a Corps permit in 2007, and the Corps re-issued a NWP 29 permit on July 13, 2007 (Corps File No. 26570N).

The RWQCB issued a 401 Water Quality Certification for the project on July 5, 2007 (WDID No. 1B02040WNSO). The Certification authorized impacts to 0.40-acre of seasonal wetlands and 0.046-acre of drainage ditch. The Certification stated that “Compensatory mitigation for the Project will be attained through the purchase of 0.40-acre of wetland credits and 0.40-acre of wetland preservation credits for the Hale Mitigation Bank. An additional 0.08-acre of wetland creation credits will be purchased from the Hazel Mitigation Bank.”

To mitigate anticipated impacts to 0.046-acre of the roadside ditch, the applicant purchased 0.05-acre of wetland creation credits from the Hazel Mitigation Preserve (October 2006), and purchased an additional 0.08-acre of wetland creation credits from the Hazel Mitigation Preserve (November 2006).

In 2018, M&A submitted a Preconstruction Notice (“permit application”) requesting that the Corps verify that the Cherry Ranch Project meets conditions for use of NWP 29 (Residential Development) as administered by the Corps pursuant to Section 404 of the Clean Water Act. The application only pertained to the impacts to the roadside ditch that would be filled to complete the required road improvements, such as curb and gutter along Fresno Avenue. The Corps issued a permit for impacts to the roadside ditch on July 18, 2019 (Corps File Number 2002 - 265700N). The applicant will also re-apply for Water Quality Certification to impact the roadside ditch for the City-required road improvements. This application cannot be processed by the RWQCB until the project is adopted by the City of Santa Rosa pursuant to the CEQA. The project shall obtain the new certification of water quality from the RWQCB prior to any project related grading/construction on the project site.

*Implementation of the measures described above reduce significant impacts to waters of the U.S./State to a level considered less than significant pursuant to the CEQA. Any other conditions that are stipulated for wetland impacts by the Corps and/or RWQCB shall also be implemented by the proposed project.*

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

## 16. LITERATURE CITED

- Baldwin D.H., Goldman D.H., Keil D.J., Patterson R., Rosatti T.J., Wilken D.H. (ed.). 2012. The Jepson Manual Vascular Plants of California: Second Edition. University of California Press, Berkeley. 1568 pps.
- Beier, P. and Loe, S. (1992). A checklist for evaluating impacts to wildlife movement corridors. Wildlife Society Bulletin. 20: 434-440 pps.
- CDFG (California Department of Fish and Game). 2000. Guidelines for assessing the effects of proposed developments on rare and endangered plants and plant communities. December 9, 1983, revised May 8, 2000.
- CDFG (California Department of Fish and Game). 2009. Protocols for surveying and evaluating impacts to special status native plant populations and natural communities. November 2009. 7 pps.
- CDFW (California Department of Fish and Wildlife). 2016. Complete List of Amphibian, Reptile, Bird and Mammal Species in California. Published September 2008; May 2016 (updated).
- CNDDDB (California Natural Diversity Data Base). 2018. RareFind 3.1. Computer printout for special-status species within a 5-mile radius of the project site. California Natural Heritage Division, California Department of Fish and Wildlife, Sacramento, CA.
- CNPS (California Native Plant Society). 2001. Inventory of rare and endangered plants of California (sixth edition). Rare plant scientific advisory committee, David P. Tibor, convening editor. California Native Plant Society. Sacramento, CA. x+338 pps.
- Corps (U.S. Army Corps of Engineers). 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report, Y-87-1. US Army Engineer Waterways Experiment Station. Vicksburg, Mississippi. 100 pp.
- Corps (U.S. Army Corps of Engineers). 2008. Regional Supplement to the U.S. Army Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2). Ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-06-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center. September 2008.
- Orloff, S.G., 2007. Migratory Movements of California Tiger Salamander in Upland Habitat – A Five–Year Study Pittsburg, California. Prepared By: S. Orloff Ibis Environmental, Inc. 340 Coleman Dr. San Rafael, CA 94901 May 2007. 43 pp. w/ Appendices.
- Searcy, C. A., and Shaffer, H. B. 2011. Determining the migration distance of a vagile vernal pool specialist: how much land is required for conservation of California tiger salamanders. Research and recovery in vernal pool landscapes. Studies from the Herbarium (16), 73-87.

Biological Resources Analysis  
Cherry Ranch Project  
Santa Rosa, California

Shuford, W.D. 1993. The Marin County breeding bird atlas: A distributional and natural history of coastal California birds. California Avifauna Series 1. Bushtit Books, Bolinas, California.

USFWS (U.S. Fish & Wildlife Service). 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed Proposed and Candidate Plants. January 2000.

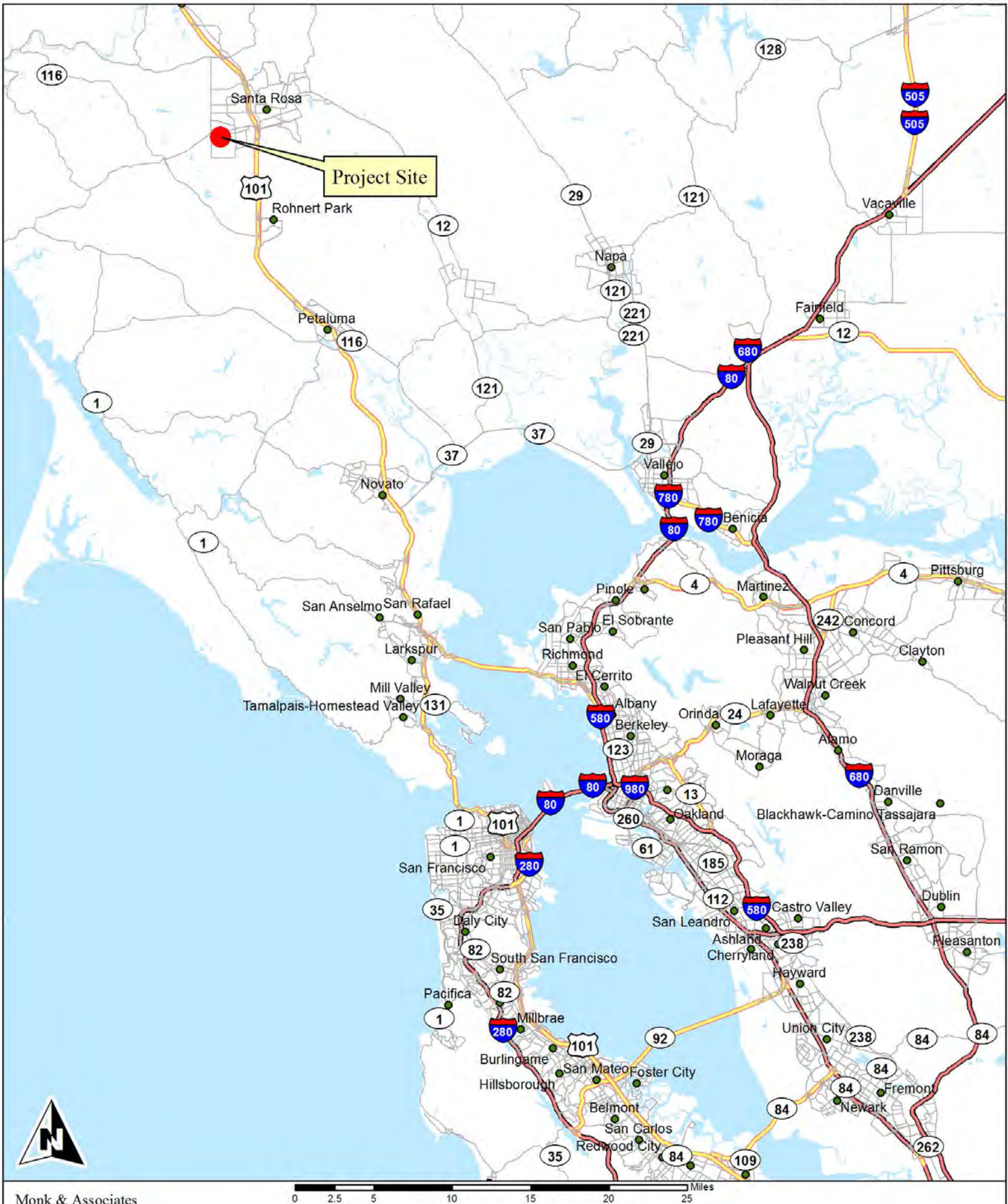
USFWS (U.S. Fish & Wildlife Service). 2003. Sonoma County population of California tiger salamander listed as an endangered species. Federal Register: March 19, 2003 (Volume 68, Number 53), Rules and Regulations, Page 13497-13520. From the Federal Register online via GPO Access [wais.access.gpo.gov]

USFWS (U.S. Fish & Wildlife Service) et. al. 2005. Final Santa Rosa Plain Conservation Strategy. Sacramento Office of the U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, North Coast Regional Water Quality Control Board, County of Sonoma, Cities of Cotati, Rohnert Park, and Santa Rosa, Laguna de Santa Rosa Foundation. December 1, 2005.

USFWS (U.S. Fish & Wildlife Service). 2007. Programmatic Biological Opinion (Programmatic) for U.S. Army Corps of Engineers (Corps) Permitted Projects that Affect the California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain, California (Corps File No. 223420N). November 9, 2007. 41 pp. w/ Enclosures.

USFWS (U.S. Fish & Wildlife Service). 2011. Endangered and Threatened Wildlife and Plants: Revised Designation of Critical Habitat for the Sonoma County Distinct Population Segment of California Tiger Salamander; Final Rule. Federal Register 50 CFR Part 17 August 31, 2011 (Volume 76, Number 169) Page 54346.

USFWS (U.S. Fish and Wildlife Service). 2016. Recovery Plan for the Santa Rosa Plain: *Blennosperma bakeri* (Sonoma sunshine); *Lasthenia burkei* (Burke's goldfields); *Limnanthes vinculans* (Sebastopol meadowfoam); California Tiger Salamander Sonoma County Distinct Population Segment (*Ambystoma californiense*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. vi + 128 pp. June 20, 2016. Federal Register. Pages: 39945-39946.



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Figure 1. Cherry Ranch Project Site  
Regional Map  
Santa Rosa, California

County: Sonoma  
Map Preparation Date: July 10, 2018



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Figure 2. Cherry Ranch Project Site  
Location Map  
Santa Rosa, California

38.423129 -122.758594  
Land Grant  
7.5-Minute Sebastopol quadrangle  
HUC08 Watershed CA: Russian  
Aerial Photograph Source: ESRI  
Map Preparation Date: July 10, 2018



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0 25 50 100 150 200 250 Feet

Figure 3. Aerial Photograph of the  
Cherry Ranch Project Site  
Santa Rosa, California

Aerial Photograph Source: Google Earth  
Map Preparation Date: July 10, 2018

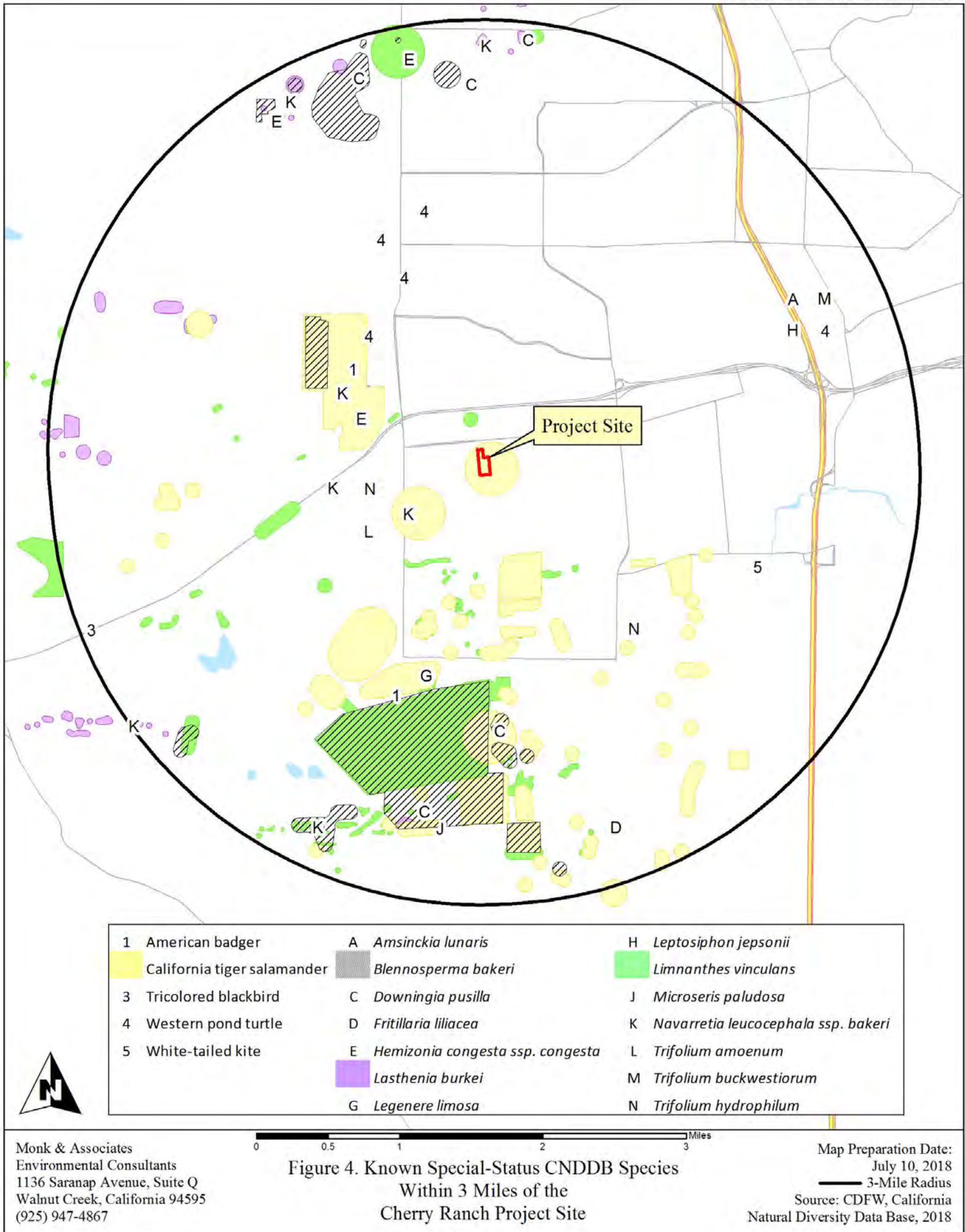


Figure 4. Known Special-Status CNDDDB Species  
Within 3 Miles of the  
Cherry Ranch Project Site

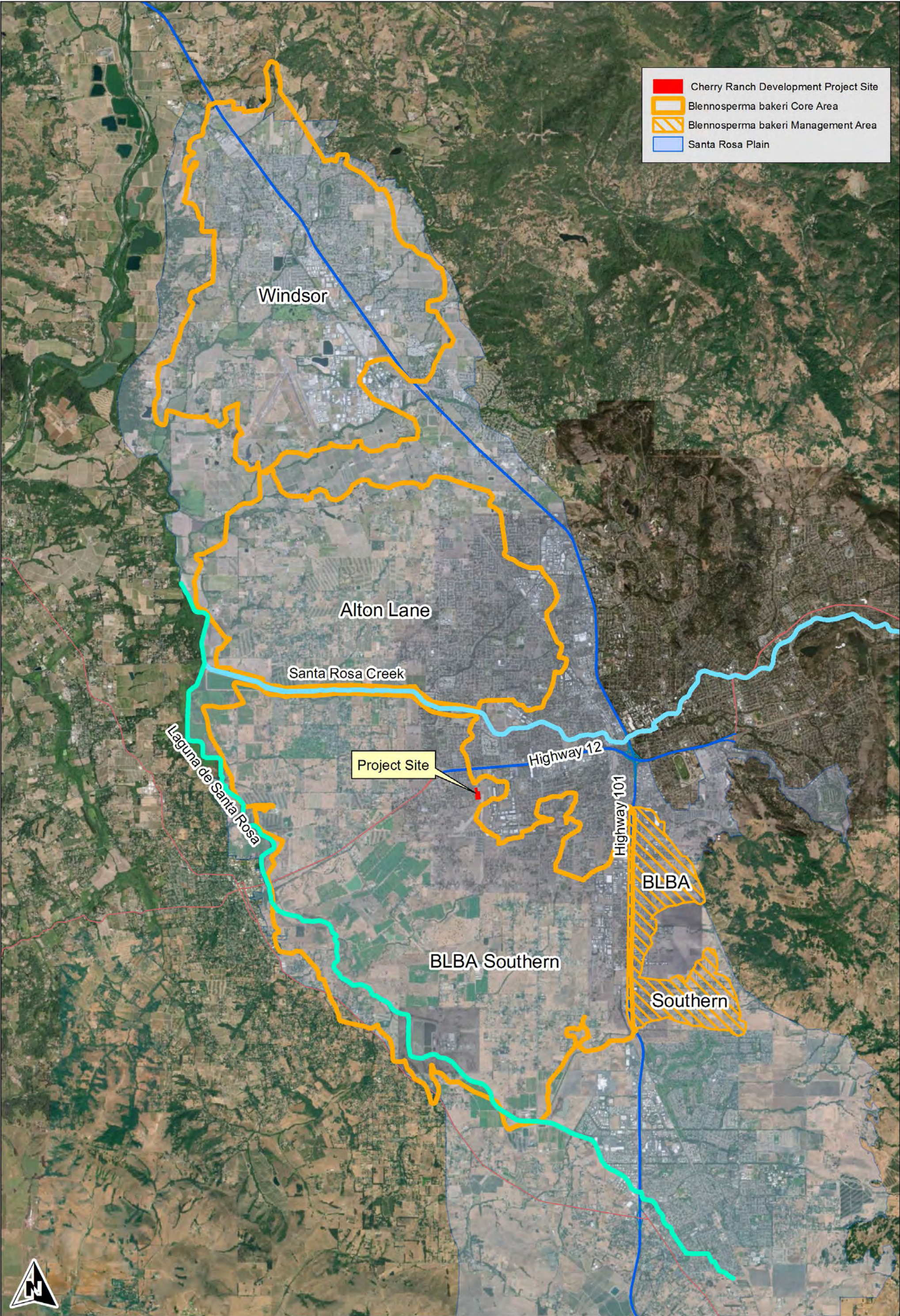


Figure 5. Blennosperma bakeri Core and Management Areas  
(from USFWS 2016) in the Vicinity of the  
Cherry Ranch Project Site

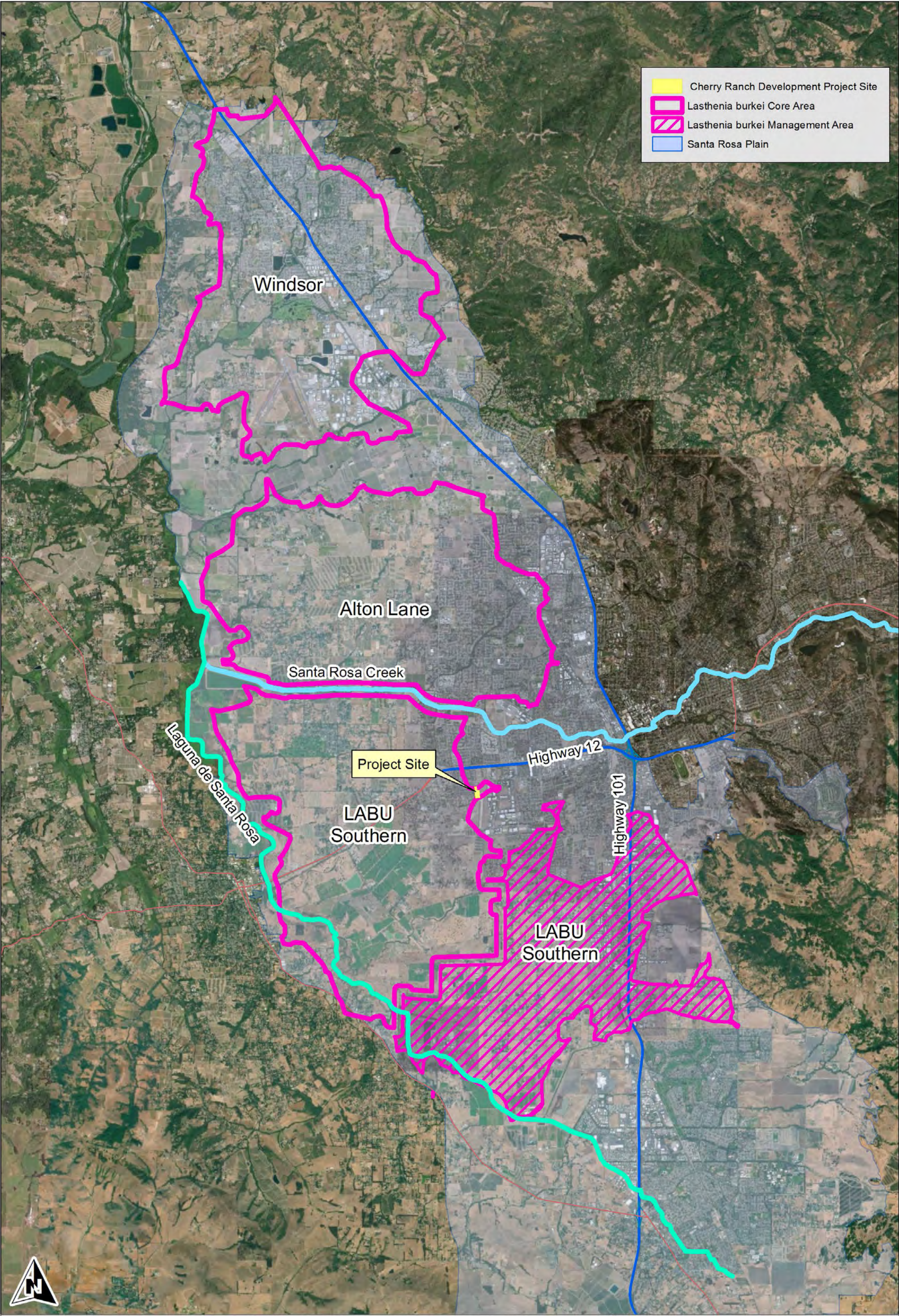


Figure 6. Lasthenia burkei Core and Management Areas  
(from USFWS 2016) in the Vicinity of the  
Cherry Ranch Project Site

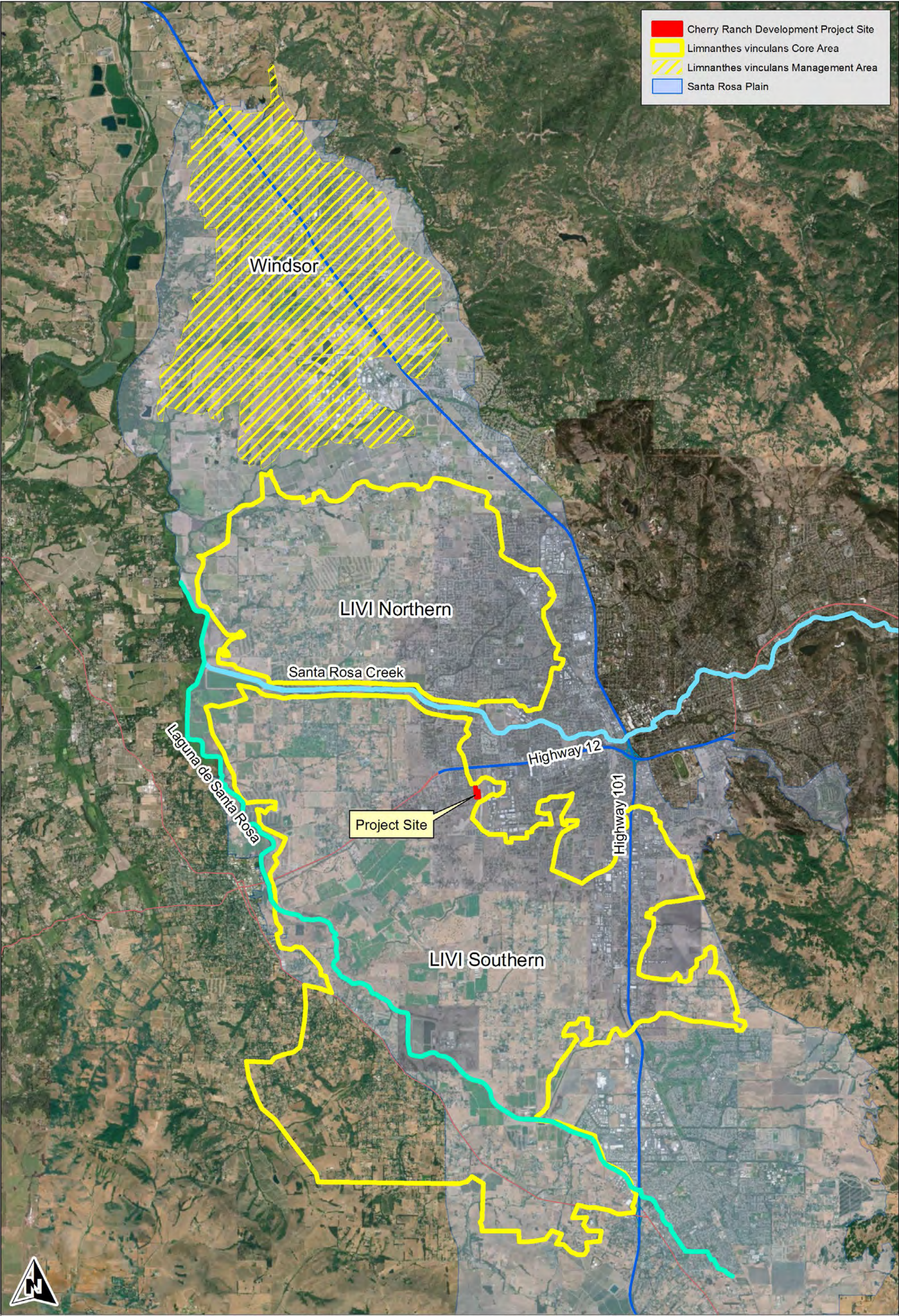


Figure 7. *Limnanthes vinculans* Core and Management Areas  
(from USFWS 2016) in the Vicinity of the  
Cherry Ranch Project Site

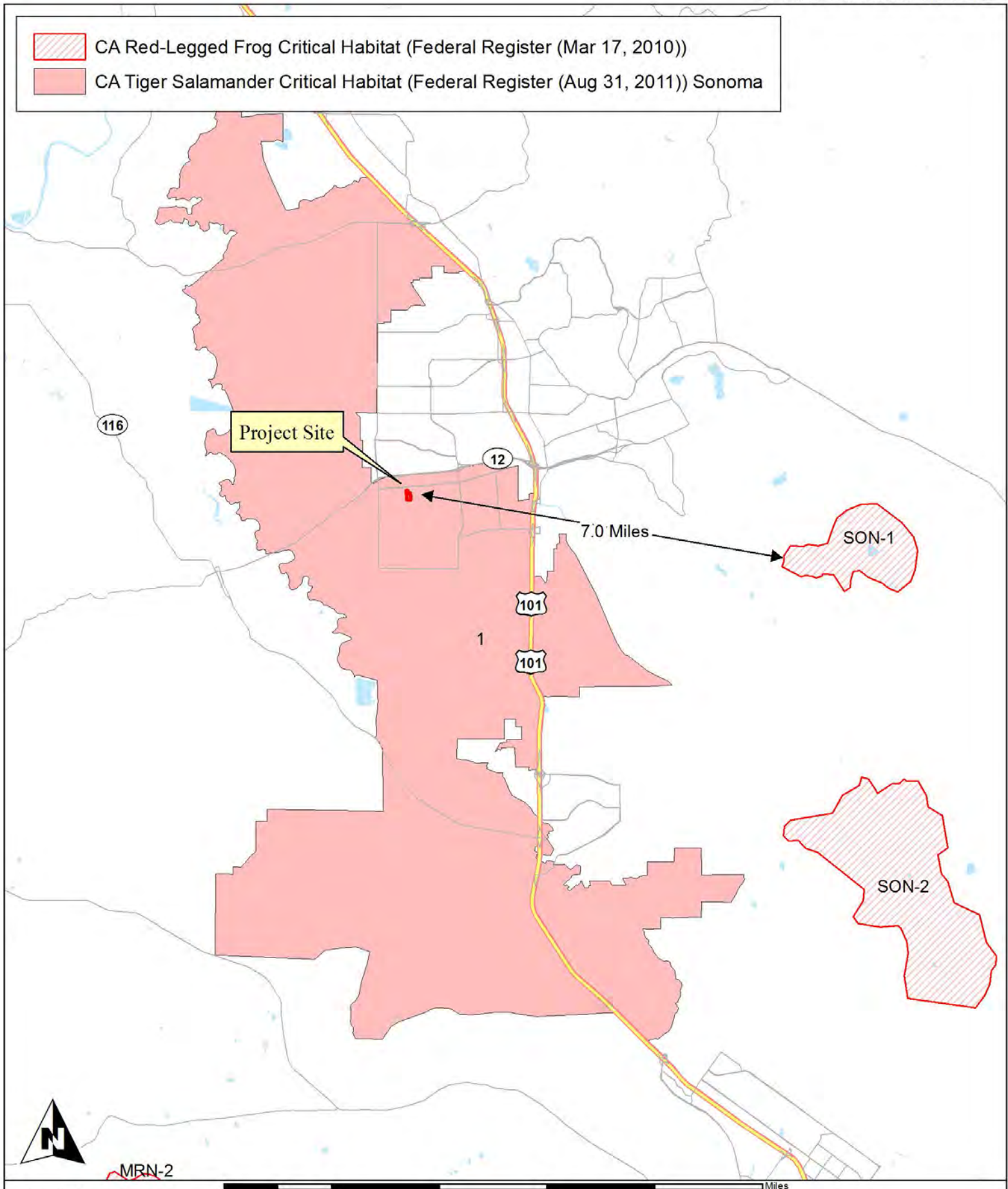


Figure 8. USFWS Critical Habitat in the Vicinity of the  
Cherry Ranch Project Site  
Santa Rosa, California

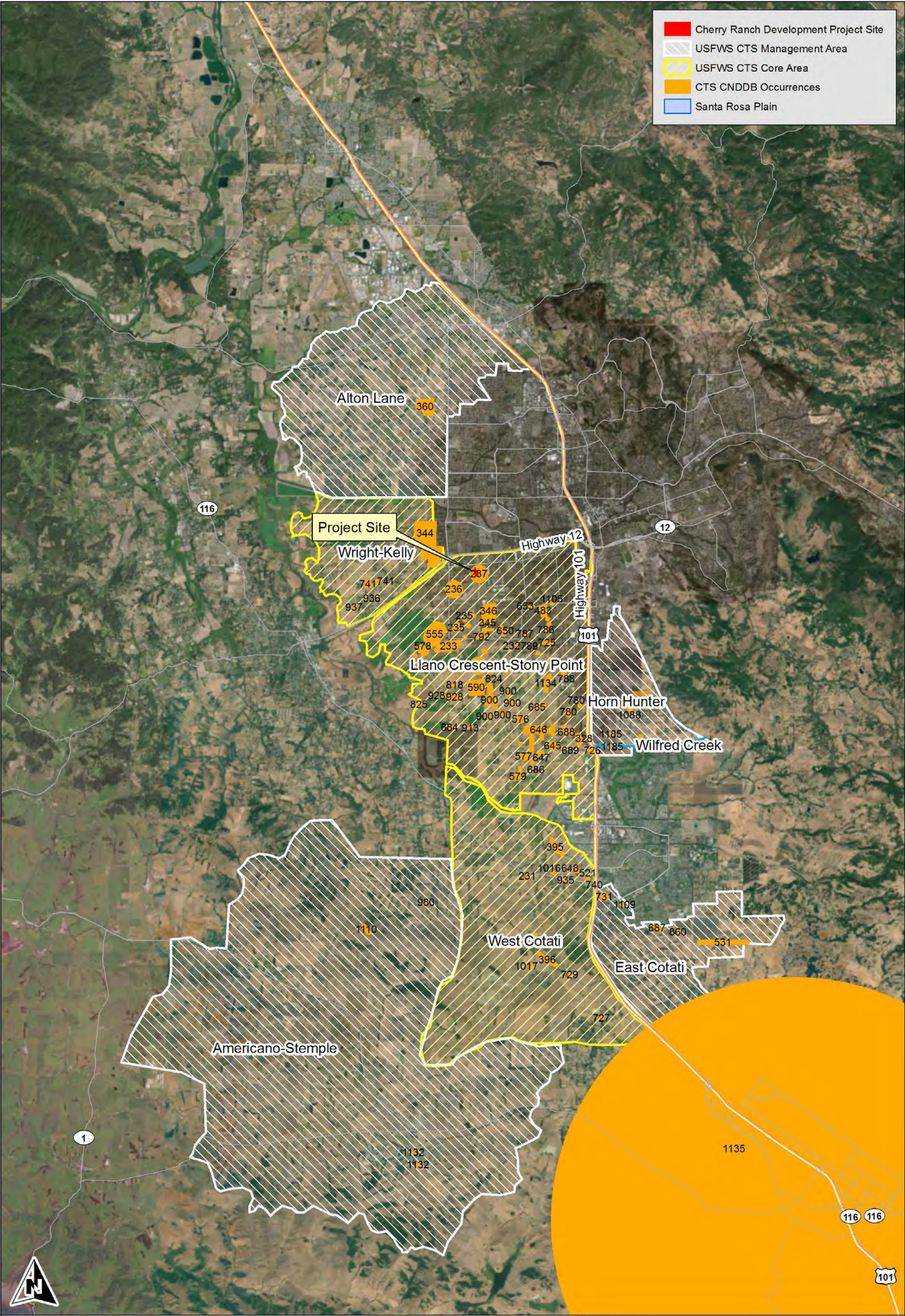


Figure 9. Santa Rosa Plain California Tiger Salamander Core and Management Areas (from USFWS 2016) in the Vicinity of the Cherry Ranch Project Site

**Table 1**  
**Plant Species Observed on the Cherry Ranch Project Site**

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**Gymnosperms**


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**Cupressaceae**

|                                |                 |
|--------------------------------|-----------------|
| <i>*Cupressus sempervirens</i> | Italian cypress |
|--------------------------------|-----------------|

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**Angiosperms - Dicots**


---

**Anacardiaceae**

|                                   |                    |
|-----------------------------------|--------------------|
| <i>Toxicodendron diversilobum</i> | Western poison-oak |
|-----------------------------------|--------------------|

**Apiaceae**

|                                                     |                           |
|-----------------------------------------------------|---------------------------|
| <i>*Conium maculatum</i>                            | Poison hemlock            |
| <i>*Daucus carota</i>                               | Queen Anne's lace         |
| <i>Eryngium aristulatum</i> var. <i>aristulatum</i> | California coyote-thistle |
| <i>*Foeniculum vulgare</i>                          | Sweet fennel              |

**Asteraceae**

|                                                           |                     |
|-----------------------------------------------------------|---------------------|
| <i>*Anthemis cotula</i>                                   | Mayweed             |
| <i>Baccharis pilularis</i> subsp. <i>consanguinea</i>     | Coyote brush        |
| <i>*Carduus pycnocephalus</i> subsp. <i>pycnocephalus</i> | Italian thistle     |
| <i>*Cichorium endiva</i>                                  | Endive              |
| <i>*Cirsium vulgare</i>                                   | Bull thistle        |
| <i>*Helminthotheca echioides</i>                          | Bristly ox-tongue   |
| <i>Hemizonia congesta</i> subsp. <i>lutescens</i>         | Tarweed             |
| <i>*Hypochaeris radicata</i>                              | Rough cat's-ear     |
| <i>*Lactuca serriola</i>                                  | Prickly lettuce     |
| <i>Lasthenia glaberrima</i>                               | Smooth goldfields   |
| <i>*Leontodon saxatilis</i>                               | Long-beaked hawkbit |
| <i>Madia sativa</i>                                       | Coast tarweed       |
| <i>*Matricaria discoidea</i>                              | Pineapple-weed      |
| <i>*Senecio vulgaris</i>                                  | Common groundsel    |
| <i>*Sonchus oleraceus</i>                                 | Common sow-thistle  |
| <i>*Tragopogon porrifolius</i>                            | Common salsify      |
| <i>Xanthium strumarium</i>                                | Cocklebur           |

**Boraginaceae**

|                                 |                       |
|---------------------------------|-----------------------|
| <i>Plagiobothrys bracteatus</i> | Bracted popcornflower |
|---------------------------------|-----------------------|

**Brassicaceae**

|                              |                      |
|------------------------------|----------------------|
| <i>Cardamine oligosperma</i> | Few-seed bittercress |
| <i>*Hirschfeldia incana</i>  | Short-podded mustard |
| <i>*Lepidium latifolium</i>  | Broadleaf pepperweed |
| <i>*Raphanus sativus</i>     | Wild radish          |

**Campanulaceae**

|                                                |           |
|------------------------------------------------|-----------|
| <i>Downingia concolor</i> var. <i>concolor</i> | Downingia |
|------------------------------------------------|-----------|

**Caryophyllaceae**

|                                                  |                            |
|--------------------------------------------------|----------------------------|
| <i>*Cerastium fontanum</i> subsp. <i>vulgare</i> | Common mouse-ear chickweed |
| <i>*Spergularia rubra</i>                        | Ruby sand-spurrey          |

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**Table 1**  
**Plant Species Observed on the Cherry Ranch Project Site**

|                                                   |                       |
|---------------------------------------------------|-----------------------|
| <b>Convolvulaceae</b>                             |                       |
| <i>*Convolvulus arvensis</i>                      | Bindweed              |
| <i>Cuscuta campestris</i>                         | Field dodder          |
| <b>Crassulaceae</b>                               |                       |
| <i>Crassula aquatica</i>                          | Water pygmy-weed      |
| <b>Fabaceae</b>                                   |                       |
| <i>Acmispon americanus</i> var. <i>americanus</i> | Spanish-clover        |
| <i>*Lotus corniculatus</i>                        | Birdfoot trefoil      |
| <i>Lupinus bicolor</i>                            | Bicolored lupine      |
| <i>*Medicago polymorpha</i>                       | California burclover  |
| <i>*Trifolium cernuum</i>                         | Nodding clover        |
| <i>Trifolium ciliolatum</i>                       | Foothill clover       |
| <i>*Trifolium dubium</i>                          | Little hop clover     |
| <i>*Trifolium fragiferum</i>                      | Strawberry clover     |
| <i>*Trifolium hirtum</i>                          | Rose clover           |
| <i>*Trifolium subterraneum</i>                    | Subterranean clover   |
| <i>*Vicia benghalensis</i>                        | Purple vetch          |
| <i>*Vicia sativa</i>                              | Common vetch          |
| <b>Fagaceae</b>                                   |                       |
| <i>Quercus lobata</i>                             | Valley oak            |
| <b>Geraniaceae</b>                                |                       |
| <i>*Erodium botrys</i>                            | Broad-leaf filaree    |
| <i>*Erodium cicutarium</i>                        | Red-stem filaree      |
| <i>*Erodium moschatum</i>                         | White-stem filaree    |
| <i>*Geranium dissectum</i>                        | Cut-leaf geranium     |
| <b>Lamiaceae</b>                                  |                       |
| <i>*Mentha pulegium</i>                           | Pennyroyal            |
| <b>Lythraceae</b>                                 |                       |
| <i>*Lythrum hyssopifolia</i>                      | Hyssop loosestrife    |
| <b>Malvaceae</b>                                  |                       |
| <i>*Malva nicaeensis</i>                          | Bull mallow           |
| <i>*Malva parviflora</i>                          | Cheeseweed            |
| <b>Myrsinaceae</b>                                |                       |
| <i>*Lysimachia arvensis</i>                       | Scarlet pimpernel     |
| <i>Lysimachia minima</i>                          | Chaffweed             |
| <b>Oleaceae</b>                                   |                       |
| <i>*Fraxinus oxycarpa</i>                         | Raywood ash           |
| <b>Onagraceae</b>                                 |                       |
| <i>Epilobium campestre</i>                        | Smooth spike-primrose |
| <i>Taraxia ovata</i>                              | Sun cup               |
| <b>Orobanchaceae</b>                              |                       |
| <i>*Parentucellia viscosa</i>                     | Yellow glandweed      |

**Table 1**  
**Plant Species Observed on the Cherry Ranch Project Site**

|                                                         |                           |
|---------------------------------------------------------|---------------------------|
| <b>Papaveraceae</b>                                     |                           |
| <i>Eschscholzia californica</i>                         | California poppy          |
| <b>Plantaginaceae</b>                                   |                           |
| * <i>Plantago coronopus</i>                             | Cut-leaf plantain         |
| * <i>Plantago lanceolata</i>                            | English plantain          |
| <i>Veronica peregrina</i> subsp. <i>xalapensis</i>      | Purslane speedwell        |
| <b>Polygonaceae</b>                                     |                           |
| * <i>Rumex acetosella</i>                               | Sheep sorrel              |
| * <i>Rumex conglomeratus</i>                            | Green dock                |
| * <i>Rumex crispus</i>                                  | Curly dock                |
| * <i>Rumex pulcher</i>                                  | Fiddle dock               |
| <b>Ranunculaceae</b>                                    |                           |
| <i>Ranunculus californicus</i> var. <i>californicus</i> | California buttercup      |
| * <i>Ranunculus muricatus</i>                           | Spiny-fruit buttercup     |
| <i>Ranunculus pusillus</i>                              | Low buttercup             |
| <b>Rosaceae</b>                                         |                           |
| * <i>Pyrus calleryana</i>                               | Callery pear              |
| * <i>Rubus armeniacus</i>                               | Himalayan blackberry      |
| <b>Verbenaceae</b>                                      |                           |
| <i>Phyla nodiflora</i>                                  | Common frog-fruit         |
| <b>Vitaceae</b>                                         |                           |
| * <i>Vitis vinifera</i>                                 | Cultivated grape          |
| <b>Angiosperms -Monocots</b>                            |                           |
| <b>Cyperaceae</b>                                       |                           |
| <i>Cyperus eragrostis</i>                               | Tall flatsedge            |
| <i>Eleocharis macrostachya</i>                          | Creeping spikerush        |
| <b>Juncaceae</b>                                        |                           |
| <i>Juncus bufonius</i>                                  | Toad rush                 |
| <i>Juncus patens</i>                                    | Spreading rush            |
| <i>Juncus tenuis</i>                                    | Slender rush              |
| <i>Juncus xiphioides</i>                                | Iris-leaved rush          |
| <b>Poaceae</b>                                          |                           |
| * <i>Aira caryophylla</i>                               | Silver European hairgrass |
| * <i>Anthoxanthum odoratum</i>                          | Sweet vernal grass        |
| * <i>Avena barbata</i>                                  | Slender wild oat          |
| * <i>Briza minor</i>                                    | Small quaking grass       |
| * <i>Bromus diandrus</i>                                | Ripgut grass              |
| * <i>Bromus hordeaceus</i>                              | Soft chess                |
| * <i>Bromus madritensis</i> subsp. <i>madritensis</i>   | Foxtail chess             |
| <i>Elymus triticoides</i>                               | Creeping wildrye          |
| * <i>Festuca arundinacea</i>                            | Tall fescue               |
| * <i>Festuca bromoides</i>                              | Brome fescue              |

\* Indicates a non-native species

**Table 1**  
**Plant Species Observed on the Cherry Ranch Project Site**

|                                                   |                        |
|---------------------------------------------------|------------------------|
| <i>*Festuca myuros</i>                            | Rattail sixweeks grass |
| <i>*Festuca perennis</i>                          | perennial ryegrass     |
| <i>*Glyceria declinata</i>                        | Low mannagrass         |
| <i>*Holcus lanatus</i>                            | Common velvet grass    |
| <i>Hordeum brachyantherum</i>                     | Meadow barley          |
| <i>*Hordeum marinum subsp. gussoneanum</i>        | Mediterranean barley   |
| <i>*Hordeum murinum subsp. leporinum</i>          | Hare barley            |
| <i>*Phalaris aquatica</i>                         | Harding grass          |
| <i>Pleuropogon californicus var. californicus</i> | Annual semaphore grass |
| <i>*Poa annua</i>                                 | Annual bluegrass       |
| <i>Poa secunda</i>                                | Secund bluegrass       |

**Table 2**  
**Wildlife Species Observed on the Cherry Ranch Project Site in 2018**

|                         |                                |
|-------------------------|--------------------------------|
| <b>Amphibians</b>       |                                |
| Sierran treefrog        | <i>Pseudacris sierra</i>       |
| <b>Reptiles</b>         |                                |
| Western fence lizard    | <i>Sceloporus occidentalis</i> |
| Common garter snake     | <i>Thamnophis sirtalis</i>     |
| <b>Birds</b>            |                                |
| Red-shouldered hawk     | <i>Buteo lineatus</i>          |
| Red-tailed hawk         | <i>Buteo jamaicensis</i>       |
| California quail        | <i>Callipepla californica</i>  |
| Mourning dove           | <i>Zenaida macroura</i>        |
| Nuttall's woodpecker    | <i>Picoides nuttallii</i>      |
| Black phoebe            | <i>Sayornis nigricans</i>      |
| American crow           | <i>Corvus brachyrhynchos</i>   |
| Violet-green swallow    | <i>Tachycineta thalassina</i>  |
| White-breasted nuthatch | <i>Sitta carolinensis</i>      |
| Northern mockingbird    | <i>Mimus polyglottos</i>       |
| European starling       | <i>Sturnus vulgaris</i>        |
| Cedar waxwing           | <i>Bombycilla cedrorum</i>     |
| California towhee       | <i>Pipilo crissalis</i>        |
| White-crowned sparrow   | <i>Zonotrichia leucophrys</i>  |
| Bullock's oriole        | <i>Icterus bullockii</i>       |
| House finch             | <i>Haemorhous mexicanus</i>    |
| Lesser goldfinch        | <i>Spinus psaltria</i>         |
| House sparrow           | <i>Passer domesticus</i>       |
| <b>Mammals</b>          |                                |
| Botta's pocket gopher   | <i>Thomomys bottae</i>         |

**Table 3**  
**Special-Status Plant Species Known to Occur Within 3 Miles of the Cherry Ranch Project Site**

| Family<br>Taxon<br>Common Name                               | Status*                                 | Flowering Period | Habitat                                                                                                    | Area Locations                                                                                                        | Probability on Project Site                                                                                                                     |
|--------------------------------------------------------------|-----------------------------------------|------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Adoxaceae</b>                                             |                                         |                  |                                                                                                            |                                                                                                                       |                                                                                                                                                 |
| <i>Viburnum ellipticum</i><br>Western viburnum               | Fed: -<br>State: -<br>CNPS: Rank 2B.3   | May-July         | Chaparral; cismontane woodland; lower montane coniferous forest.                                           | On CNPS 1 Quad Search.                                                                                                | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.                           |
| <b>Asteraceae</b>                                            |                                         |                  |                                                                                                            |                                                                                                                       |                                                                                                                                                 |
| <i>Blennosperma bakeri</i><br>Sonoma sunshine                | Fed: FE<br>State: CE<br>CNPS: Rank 1B.1 | February-April   | Valley and foothill grassland (mesic); vernal pools.                                                       | The closest record for this species is located approximately 1.3 miles northwest of the property (Occurrence No. 37). | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.                           |
| <i>Hemizonia congesta congesta</i><br>White seaside tarplant | Fed: -<br>State: -<br>CNPS: Rank 1B.2   | April-November   | Valley and foothill grassland. 20 to 560 meters.                                                           | The closest record for this species is located approximately 0.9 miles northwest of the property (Occurrence No. 27). | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.                           |
| <i>Lasthenia burkei</i><br>Burke's goldfields                | Fed: FE<br>State: CE<br>CNPS: Rank 1B.1 | April-June       | Meadows and seeps (mesic); vernal pools.                                                                   | The closest record for this species is located approximately 1.0 miles northwest of the property (Occurrence No. 28). | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.                           |
| <i>Lasthenia californica bakeri</i><br>Baker's goldfields    | Fed: -<br>State: -<br>CNPS: Rank 1B.2   | April-October    | Closed-cone coniferous forest, coastal scrub (meadows and seeps; marshes and swamps).                      | On CNPS 1 Quad Search.                                                                                                | None. Suitable habitat present. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <i>Microseris paludosa</i><br>Marsh microseris               | Fed: -<br>State: -<br>CNPS: Rank 1B.2   | April-July       | Closed-cone coniferous forest; cismontane woodland; coastal scrub; valley and foothill grassland. 5-300 m. | The closest record for this species is located approximately 2.6 miles south of the property (Occurrence No. 20).     | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.                           |

**Table 3**  
**Special-Status Plant Species Known to Occur Within 3 Miles of the Cherry Ranch Project Site**

| Family<br>Taxon<br>Common Name                       | Status*                               | Flowering Period | Habitat                                                                                                                             | Area Locations                                                                                                        | Probability on Project Site                                                                                           |
|------------------------------------------------------|---------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Boraginaceae</b>                                  |                                       |                  |                                                                                                                                     |                                                                                                                       |                                                                                                                       |
| <i>Amsinckia lunaris</i><br>Bent-flowered fiddleneck | Fed: -<br>State: -<br>CNPS: Rank 1B.2 | March-June       | Cismontane woodland, valley and foothill grassland, coastal bluff scrub.                                                            | The closest record for this species is located approximately 2.5 miles northeast of the property (Occurrence No. 67). | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <b>Campanulaceae</b>                                 |                                       |                  |                                                                                                                                     |                                                                                                                       |                                                                                                                       |
| <i>Campanula californica</i><br>Swamp bellflower     | Fed: -<br>State: -<br>CNPS: Rank 1B.2 | June-September   | Bogs & fens; closed-cone coniferous forest; coastal prairie; meadows; marshes & swamps (freshwater); north coast coniferous forest. | On CNPS 1 Quad Search.                                                                                                | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <i>Downingia pusilla</i><br>Dwarf downingia          | Fed: -<br>State: -<br>CNPS: Rank 2.2  | March-May        | Valley and foothill grassland (mesic); vernal pools.                                                                                | The closest record for this species is located approximately 1.9 miles south of the property (Occurrence No. 86).     | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <i>Legenere limosa</i><br>Legenere                   | Fed: -<br>State: -<br>CNPS: Rank 1B.1 | April-June       | Vernal pools.                                                                                                                       | The closest record for this species is located approximately 1.5 miles south of the property (Occurrence No. 39).     | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <b>Convolvulaceae</b>                                |                                       |                  |                                                                                                                                     |                                                                                                                       |                                                                                                                       |
| <i>Cuscuta obtusiflora glandulosa</i>                | Fed: -<br>State: -<br>CNPS: Rank 2.2  | July-October     | Marshes and swamps (freshwater)                                                                                                     | On CNPS 1 Quad Search.                                                                                                | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |

**Table 3**  
**Special-Status Plant Species Known to Occur Within 3 Miles of the Cherry Ranch Project Site**

| Family<br>Taxon<br>Common Name                                   | Status*                                | Flowering Period | Habitat                                                                                                         | Area Locations         | Probability on Project Site                                                                                                   |
|------------------------------------------------------------------|----------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Cyperaceae</b>                                                |                                        |                  |                                                                                                                 |                        |                                                                                                                               |
| <i>Rhynchospora alba</i><br>White beaked-rush                    | Fed: -<br>State: -<br>CNPS: Rank 2B.2  | July-August      | Bogs and fens; marshes and swamps (freshwater).                                                                 | On CNPS 1 Quad Search. | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.         |
| <i>Rhynchospora californica</i><br>California beaked-rush        | Fed: -<br>State: -<br>CNPS: Rank 1B.1  | May-July         | Lower montane coniferous forest; meadows (seeps); marshes and swamps (freshwater).                              | On CNPS 1 Quad Search. | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.         |
| <i>Rhynchospora capitellata</i><br>Brownish beaked-rush          | Fed: -<br>State: -<br>CNPS: Rank 2.2   | July-August      | Lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest (mesic) | On CNPS 1 Quad Search. | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.         |
| <i>Rhynchospora globularis</i><br>Roundheaded beaked-rush        | Fed: -<br>State: -<br>CNPS: Rank 2B.1  | July-August      | Marshes and swamps (freshwater).                                                                                | On CNPS 1 Quad Search. | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.         |
| <b>Ericaceae</b>                                                 |                                        |                  |                                                                                                                 |                        |                                                                                                                               |
| <i>Arctostaphylos densiflora</i><br>Vine Hill manzanita          | Fed: -<br>State: CE<br>CNPS: Rank 1B.1 | February-March   | Chaparral (acid marine sand).                                                                                   | On CNPS 1 Quad Search. | None. No chaparral on the project site. No species of <i>Arctostaphylos</i> observed. No impacts to this species anticipated. |
| <i>Arctostaphylos stanfordiana decumbens</i><br>Rincon manzanita | Fed: -<br>State: -<br>CNPS: Rank 1B.1  | February-April   | Chaparral (rhyolitic).                                                                                          | On CNPS 1 Quad Search. | None. No chaparral on the project site. No species of <i>Arctostaphylos</i> observed. No impacts to this species anticipated. |

**Table 3**  
**Special-Status Plant Species Known to Occur Within 3 Miles of the Cherry Ranch Project Site**

| Family<br>Taxon<br>Common Name                           | Status*                                 | Flowering Period | Habitat                                                                                     | Area Locations                                                                                                        | Probability on Project Site                                                                                           |
|----------------------------------------------------------|-----------------------------------------|------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Fabaceae</b>                                          |                                         |                  |                                                                                             |                                                                                                                       |                                                                                                                       |
| <i>Trifolium amoenum</i><br>Showy Indian clover          | Fed: FE<br>State: -<br>CNPS: Rank 1B.1  | April-June       | Valley and foothill grassland (sometimes serpentinite)                                      | The closest record for this species is located approximately 0.8 miles west of the property (Occurrence No. 20).      | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <i>Trifolium buckwestiorum</i><br>Santa Cruz clover      | Fed: -<br>State: -<br>CNPS: Rank 1B     | May-July         | Broadleaf upland forest; coastal prairie; [margins].                                        | The closest record for this species is located approximately 2.4 miles northeast of the property (Occurrence No. 35). | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <i>Trifolium hydrophilum</i><br>Saline clover            | Fed: -<br>State: -<br>CNPS: Rank 1B.2   | April-June       | Marshes and swamps; valley and foothill grassland (mesic, alkaline); vernal pools. 0-300 m. | The closest record for this species is located approximately 0.8 miles west of the property (Occurrence No. 16).      | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <b>Liliaceae</b>                                         |                                         |                  |                                                                                             |                                                                                                                       |                                                                                                                       |
| <i>Fritillaria liliacea</i><br>Fragrant fritillary       | Fed: -<br>State: -<br>CNPS: Rank 1B.2   | February-April   | Coastal prairie; coastal scrub; valley and foothill grassland; [often serpentinite].        | The closest record for this species is located approximately 2.7 miles south of the property (Occurrence No. 49).     | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <i>Lilium pardalinum pitkinense</i><br>Pitkin Marsh lily | Fed: FE<br>State: CE<br>CNPS: Rank 1B.1 | June-July        | Cismontane woodland (mesic); meadows and seeps; marshes and swamps (freshwater).            |                                                                                                                       | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <b>Limnanthaceae</b>                                     |                                         |                  |                                                                                             |                                                                                                                       |                                                                                                                       |
| <i>Limnanthes vinculans</i><br>Sebastopol meadowfoam     | Fed: FE<br>State: CE<br>CNPS: Rank 1B.1 | April-May        | Meadows (mesic); vernal pools.                                                              | The closest record for this species is located approximately 0.3 miles north of the property (Occurrence No. 31).     | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |

**Table 3**  
**Special-Status Plant Species Known to Occur Within 3 Miles of the Cherry Ranch Project Site**

| Family<br>Taxon<br>Common Name                             | Status*                                 | Flowering Period | Habitat                                                       | Area Locations                                                                                                       | Probability on Project Site                                                                                           |
|------------------------------------------------------------|-----------------------------------------|------------------|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Onagraceae</b>                                          |                                         |                  |                                                               |                                                                                                                      |                                                                                                                       |
| <i>Clarkia imbricata</i><br>Vine Hill clarkia              | Fed: FE<br>State: CE<br>CNPS: Rank 1B.1 | June-July        | Chaparral; meadows;<br>cismontane woodland.                   | On CNPS 1 Quad Search.                                                                                               | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <b>Orobanchaceae</b>                                       |                                         |                  |                                                               |                                                                                                                      |                                                                                                                       |
| <i>Castilleja uliginosa</i><br>Pitkin Marsh paintbrush     | Fed: -<br>State: CE<br>CNPS: Rank 1A    | June-July        | Marshes and swamps<br>(freshwater).                           | On CNPS 1 Quad Search.                                                                                               | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <b>Poaceae</b>                                             |                                         |                  |                                                               |                                                                                                                      |                                                                                                                       |
| <i>Alopecurus aequalis sonomensis</i><br>Sonoma alopecurus | Fed: FE<br>State: -<br>CNPS: Rank 1B.1  | May-July         | Marshes & swamps<br>(freshwater); riparian scrub.             | On CNPS 1 Quad Search.                                                                                               | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <i>Calamagrostis crassiglumis</i><br>Thurber's reed grass  | Fed: -<br>State: -<br>CNPS: Rank 2B.1   | June-July        | Coastal scrub (mesic);<br>marshes and swamps<br>(freshwater). | On CNPS 1 Quad Search.                                                                                               | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
| <b>Polemoniaceae</b>                                       |                                         |                  |                                                               |                                                                                                                      |                                                                                                                       |
| <i>Leptosiphon jepsonii</i><br>Jepson's leptosiphon        | Fed: -<br>State: -<br>CNPS: Rank 1B.2   | March-May        | Chaparral; cismontane<br>woodland (usually volcanic).         | The closest record for this species is located approximately 2.4 miles northeast of the property (Occurrence No. 3). | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |

**Table 3**  
**Special-Status Plant Species Known to Occur Within 3 Miles of the Cherry Ranch Project Site**

| Family<br>Taxon<br>Common Name                                       | Status*                                 | Flowering Period | Habitat                                                                                                             | Area Locations                                                                                                   | Probability on Project Site                                                                                                                       |
|----------------------------------------------------------------------|-----------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Navarretia leucocephala bakeri</i><br>Baker's navarretia          | Fed: -<br>State: -<br>CNPS: Rank 1B.1   | May-July         | Cismontane woodland; lower montane coniferous forest; meadows (mesic); valley and foothill grassland; vernal pools. | The closest record for this species is located approximately 0.6 miles west of the property (Occurrence No. 32). | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.                             |
| <i>Navarretia leucocephala plieantha</i><br>Many-flowered navarretia | Fed: FE<br>State: CE<br>CNPS: Rank 1B.1 | May-June         | Vernal pools (volcanic ash flow).                                                                                   | On CNPS 1 Quad Search.                                                                                           | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.                             |
| <b>Polygonaceae</b>                                                  |                                         |                  |                                                                                                                     |                                                                                                                  |                                                                                                                                                   |
| <i>Chorizanthe valida</i><br>Sonoma spineflower                      | Fed: FE<br>State: CE<br>CNPS: Rank 1B.1 | June-August      | Coastal prairie (sandy).                                                                                            | On CNPS 1 Quad Search.                                                                                           | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.                             |
| <b>Ranunculaceae</b>                                                 |                                         |                  |                                                                                                                     |                                                                                                                  |                                                                                                                                                   |
| <i>Delphinium luteum</i><br>Golden larkspur                          | Fed: FE<br>State: CR<br>CNPS: Rank 1B.1 | March-May        | Chaparral; coastal prairie; coastal scrub.                                                                          | On CNPS 1 Quad Search.                                                                                           | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated.                             |
| <b>Rhamnaceae</b>                                                    |                                         |                  |                                                                                                                     |                                                                                                                  |                                                                                                                                                   |
| <i>Ceanothus confusus</i><br>Rincon Ridge ceanothus                  | Fed: -<br>State: -<br>CNPS: Rank 1B.1   | February-April   | Closed-cone coniferous forest; chaparral; cismontane woodland; [volcanic or serpentinite].                          | On CNPS 1 Quad Search.                                                                                           | None. No forest, chaparral or woodland habitat and no serpentine soils. No species of Ceanothus observed. No impacts to this species anticipated. |

Table 3

## Special-Status Plant Species Known to Occur Within 3 Miles of the Cherry Ranch Project Site

| Family          | Taxon                     | Common Name | Status*         | Flowering Period | Habitat                     | Area Locations         | Probability on Project Site                                                                                           |
|-----------------|---------------------------|-------------|-----------------|------------------|-----------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Rosaceae</b> |                           |             |                 |                  |                             |                        |                                                                                                                       |
|                 | <i>Horkelia tenuiloba</i> |             | Fed: -          | May-July         | Chaparral (mesic openings). | On CNPS 1 Quad Search. | None. Not observed during appropriately timed surveys in 2001, 2002 and 2018. No impacts to this species anticipated. |
|                 | Thin-lobed horkelia       |             | State: -        |                  |                             |                        |                                                                                                                       |
|                 |                           |             | CNPS: Rank 1B.2 |                  |                             |                        |                                                                                                                       |

**\*Status**

## Federal:

FE - Federal Endangered

FT - Federal Threatened

FPE - Federal Proposed Endangered

FPT - Federal Proposed Threatened

FC - Federal Candidate

## State:

CE - California Endangered

CT - California Threatened

CR - California Rare

CC - California Candidate

CSC - California Species of Special Concern

## CNPS Continued:

Rank 2 - Plants rare, threatened, or endangered in California, but more common elsewhere

Rank 2A - Extirpated in California, common elsewhere

Rank 2B.1 - Seriously endangered in California, but more common elsewhere

Rank 2B.2 - Fairly endangered in California, but more common elsewhere

Rank 2B.3 - Not very endangered in California, but more common elsewhere

Rank 3 - Plants about which we need more information (Review List)

Rank 3.1 - Plants about which we need more information (Review List)

Rank 3.2 - Plants about which we need more information (Review List)

Rank 3.2 - Plants about which we need more information (Review List)

Rank 3.2 - Plants about which we need more information (Review List)

Rank 4 - Plants of limited distribution - a watch list

## CNPS:

Rank 1A - Presumed extinct in California

Rank 1B - Plants rare, threatened, or endangered in California and elsewhere

Rank 1B.1 - Seriously endangered in California (over 80% occurrences threatened/ high degree and immediacy of threat)

Rank 1B.2 - Fairly endangered in California (20-80% occurrences threatened)

Rank 1B.3 - Not very endangered in California (&lt;20% of occurrences threatened or no current threats known)

**Table 4**  
**Special-Status Wildlife Species Known to Occur Within 3 Miles of the Cherry Ranch Project Site**

| Species                                                        | *Status                           | Habitat                                                                                                                                                                                                         | Closest Locations                                                                                                      | Probability on Project Site                                                                                                                                          |
|----------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Amphibians</b>                                              |                                   |                                                                                                                                                                                                                 |                                                                                                                        |                                                                                                                                                                      |
| California tiger salamander<br><i>Ambystoma californiense</i>  | Fed: FT<br>State: CT<br>Other:    | Found in grassland habitats of the valleys and foothills. Requires burrows for aestivation and standing water until late spring (May) for larvae to metamorphose.                                               | The closest record for this species is located approximately 0.1 miles east of the property (Occurrence No. 237).      | During the survey conducted on February 7, 2002, Dr. Fawcett and Bradley Welch observed California tiger salamander larvae in a pool on the project site. (see text) |
| <b>Reptiles</b>                                                |                                   |                                                                                                                                                                                                                 |                                                                                                                        |                                                                                                                                                                      |
| Western pond turtle **<br><i>Actinemys marmorata marmorata</i> | Fed: -<br>State: CSC<br>Other:    | Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying. Occurs in the Central Valley and Contra Costa County. | The closest record for this species is located approximately 1.2 miles northwest of the property (Occurrence No. 680). | None. No suitable habitat onsite or adjacent to the project site.                                                                                                    |
| <b>Birds</b>                                                   |                                   |                                                                                                                                                                                                                 |                                                                                                                        |                                                                                                                                                                      |
| White-tailed kite<br><i>Elanus leucurus</i>                    | Fed:<br>State:<br>Other: FP       | Found in lower foothills and valley margins with scattered oaks and along river bottomlands or marshes adjacent to oak woodlands. Nests in trees with dense tops.                                               | The closest record for this species is located approximately 2.1 miles east of the property (Occurrence No. 77).       | Low. Trees onsite could provide suitable nesting habitat. Preconstruction surveys will be conducted. See text                                                        |
| Tricolored blackbird<br><i>Agelaius tricolor</i>               | Fed: -<br>State: CC<br>Other: CSC | Colonial nester in dense cattails, tules, brambles or other dense vegetation. Requires open water, dense vegetation, and open grassy areas for foraging.                                                        | The closest record for this species is located approximately 2.9 miles southwest of the property (Occurrence No. 831). | None. No suitable nesting habitat onsite.                                                                                                                            |

Table 4

## Special-Status Wildlife Species Known to Occur Within 3 Miles of the Cherry Ranch Project Site

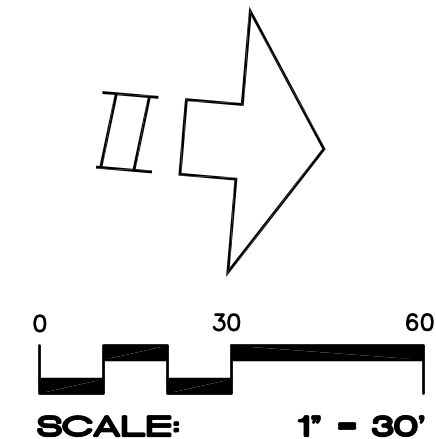
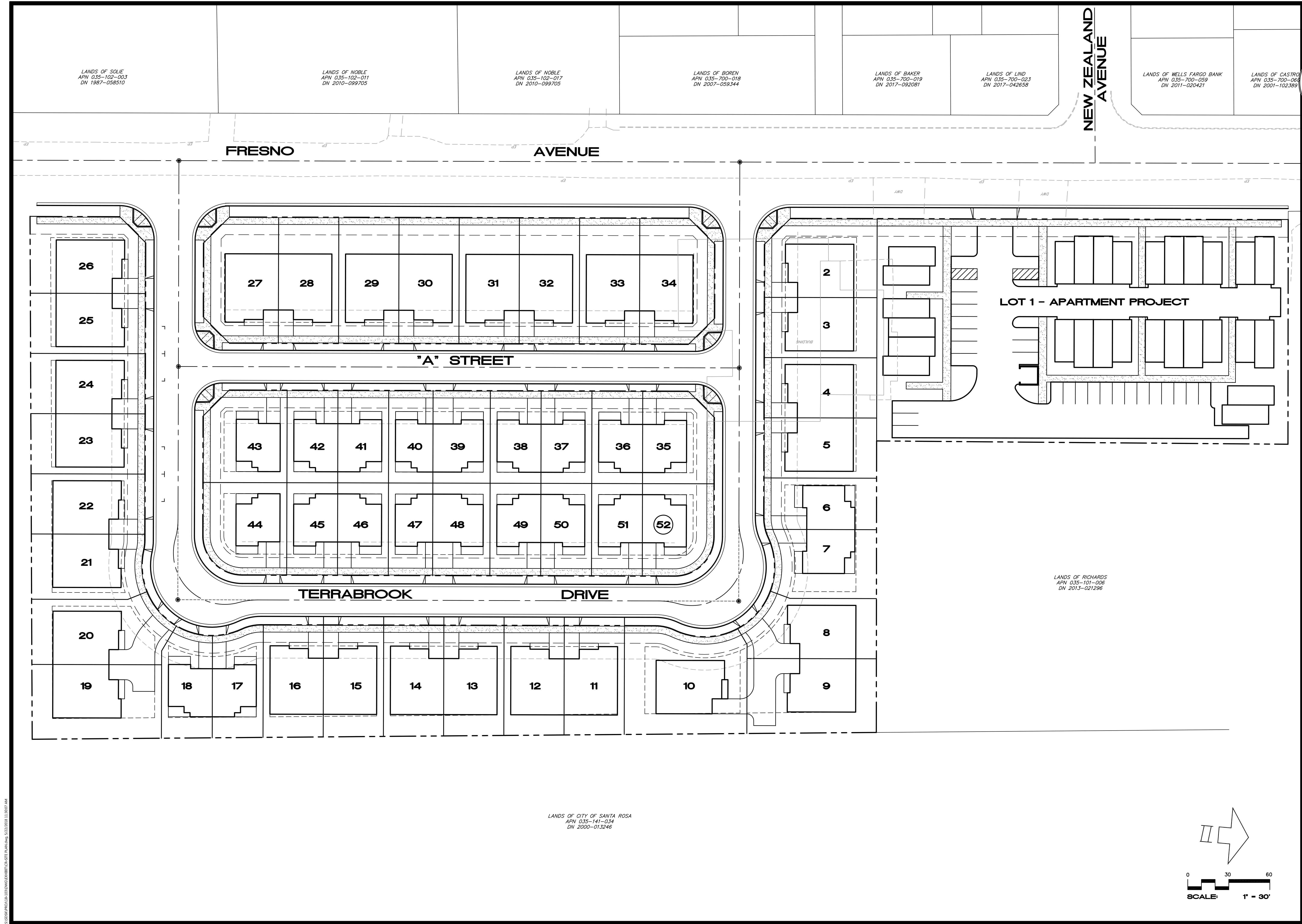
| Species                                 | *Status                        | Habitat                                                                                                                                                                                                         | Closest Locations                                                                                                     | Probability on Project Site                                                 |
|-----------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <b>Mammals</b>                          |                                |                                                                                                                                                                                                                 |                                                                                                                       |                                                                             |
| American badger<br><i>Taxidea taxus</i> | Fed: -<br>State: CSC<br>Other: | Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Need sufficient food, friable soils & open, uncultivated ground. Prey on burrowing rodents. Dig burrows. | The closest record for this species is located approximately 1.1 miles northwest of the property (Occurrence No. 28). | None. No suitable habitat onsite. Site is surrounded by a chain link fence. |

**\*Status**

|                                        |                                                 |
|----------------------------------------|-------------------------------------------------|
| Federal:                               | State:                                          |
| FE - Federal Endangered                | CE - California Endangered                      |
| FT - Federal Threatened                | CT - California Threatened                      |
| FPE - Federal Proposed Endangered      | CR - California Rare                            |
| FPT - Federal Proposed Threatened      | CC - California Candidate                       |
| FC - Federal Candidate                 | CSC - California Species of Special Concern     |
| FPD - Federally Proposed for delisting | FP - Fully Protected                            |
|                                        | WL - Watch List. Not protected pursuant to CEQA |

\*\*The USFWS hopes to finish a 12-month finding for western pond turtle in 2021 but until formally listed, it is not afforded the protections of FESA.

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PROFESSIONAL ENGINEER • VINCE BORDESSA  
No. 34368  
REGISTERED PROFESSIONAL CIVIL ENGINEER  
STATE OF CALIFORNIA

ANDREW BORDESSA  
RCE 34368

DATE

CIVIL DESIGN CONSULTANTS, INC.  
2200 Range Avenue, Suite 204  
Santa Rosa, CA 95403  
(707) 542-4820

APN: 035-101-004

PRELIMINARY SITE PLAN  
**CHERRY RANCH**  
930 FRESNO AVENUE  
SANTA ROSA, CALIFORNIA

MAY 2018

JOB NO.  
18-103

SHEET NO. 1

**1**  
OF 1 SHEETS



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office  
2800 Cottage Way, Room W-2605  
Sacramento, California 95825-1846



In Reply Refer To:  
1-1-06-F-0054

FEB 14 2006

Ms. Jane Hicks  
Chief, Regulatory Branch  
San Francisco District  
U.S. Army Corps of Engineers  
333 Market Street  
San Francisco, California 94105-2197

Subject: Formal Endangered Species Consultation for the Proposed Cherry Ranch Development in Santa Rosa, Sonoma County, California (Corps' File No. 26570N)

Dear Ms. Hicks:

This is in response to your December 20, 2002 request for formal consultation with the U.S. Fish and Wildlife Service (Service) for the proposed Cherry Ranch Development (Project) in Santa Rosa, Sonoma County, California. On January 24, 2003, the Service suspended this request for formal consultation because the Biological Assessment prepared by Golden Bear Biostudies that was a part of the U.S. Army Corps of Engineers (Corps) original request for consultation did not contain all necessary information for the Service to complete the Section 7 consultation. The Service has since received complete information regarding the proposed project and your October 25, 2005 request to initiate formal consultation. This document represents the Service's biological opinion on the effects of the action on the endangered Sonoma County Distinct Population Segment of the California tiger salamander (*Ambystoma californiense*) (tiger salamander) endangered Burke's goldfield (*Lasthenia burkei*), endangered Sonoma sunshine (*Blechnosperma bakeri*) and endangered Sebastopol meadowfoam (*Limnanthes vincularis*), in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

This biological opinion is based on information provided by the following facts, communications and documents:

1. The December 20, 2002 letter from the Corps requesting formal consultation;

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IN AMERICA 

2. The February 12, 2002 Biological Assessment for the Cherry Ranch Development Project prepared by Golden Bear Biostudies;
3. The January 24, 2003 letter from the Service to the Corps stating that the Biological Assessment did not contain all information necessary for the Service to complete Section 7 consultation;
4. *Report on California Tiger Salamander (Ambystoma californiense) Surveys, Cherry Ranch Development, Sonoma County.* Prepared by Dr. Michael Fawcett, dated June 13, 2002.
5. *Management Plan, Christina Preserve, Santa Rosa, California. Established for the Cherry Ranch Development Project.* Dated January 14, 2005. Prepared for Christina Preserve LLC by Golden Bear Biostudies. Includes Figure 5 which is an oversize Topography Map and Proposed Lot-Line Subdivision of Hale Trust Lands (APN 134-051-026) to accommodate establishment of the 35.20 Christina Preserve and 6.1 acre Hale Trust (retained property).
6. The October 25, 2005, e-mail from David Wickens of the Corps initiating formal consultation for the Project.
7. Meetings between the Service, the applicant (*i.e.*, Harvey Rich, Managing Member of the Cherry Ranch LLC and its representatives (see following Consultation History);
8. Field investigations by David Wooten and Vincent Griego of my staff, and me;
9. References cited in this Biological Opinion;
10. Other information available to the Service.

The amended biological assessment submittal assembled by Monk & Associates on December 24, 2004 containing the following stand-alone documents:

1. Cherry Ranch U.S. Army Corps of Engineers' Jurisdictional Map of the Cherry Ranch Development project site. March 7, 2002.
2. *Report on California Tiger Salamander (Ambystoma californiense) Surveys, Cherry Ranch Property, Sonoma County.* Prepared by Michael Fawcett, Ph.D. Ecologist June 13, 2002.
3. *Biological Assessment 930 Fresno Avenue. Property (Cherry Ranch), Santa Rosa.* Prepared for Mr. Rich by Marco Waaland. November 22, 2002.

4. *Biological Assessment, Christina Preserve*. Prepared for Christina Preserve LLC by Mr. Waaland. September 23, 2004.

### CONSULTATION HISTORY

June 13, 2002. California tiger salamander survey report prepared by Dr. Fawcett was submitted to Service.

November 22, 2002. Biological Assessment submitted on behalf of the applicant by Golden Bear Biostudies to the Service and U.S. Army Corps of Engineers (Corps).

December 20, 2002. The Corps requested formal consultation pursuant to Section 7 of the FESA.

January 14, 2003. Service and applicant met to discuss Formal Section 7 consultation process.

January 24, 2003. Service responded to the Corps' request for Formal Section 7 consultation pursuant to the Federal Endangered Species Act. Service response stated Biological Assessment does not contain all information necessary to complete a formal Section 7 consultation.

January 30, 2003. Service (Mr. Wooten) visited Cherry Ranch Development project site with applicant.

February 1, 2003. Mr. Waaland submitted assessment to Service stating how California tiger salamander impacts were calculated.

February 24, 2003. On behalf of applicant, Mr. Waaland submitted additional information to Jan Knight.

March 12, 2003. California tiger salamander survey report prepared by Dr. Fawcett submitted to Service.

April 22, 2004. Meeting between Service staff Ms. Goude, Dan Buford, and Mr. Griego, Scott Wilson of California Department of Fish and Game, and applicant to discuss suitable compensation for effects to California tiger salamander from development of the Cherry Ranch Development .

July 21, 2004. Conference call between Ms. Goude, Mr. Griego, and Mr. Buford, Liam Davis of the California Department of Fish and Game, and the applicant to discuss project effects and proposed compensation.

July 16, 2003. The Service sent an e-mail to the Corps stating the request for initiation of formal consultation did not meet the requirements of 50 CFR § 402.

August 6, 2004. Meeting with Wayne White, Ms. Goude, Larry Stromberg and applicant to discuss suitable compensation for effects to California tiger salamander from development at Cherry Ranch Development.

September 9, 2004. Meeting between Ms. Goude and Mr. Buford, and the applicant to discuss the project effects and proposed California tiger salamander compensation.

September 20, 2004. Applicant submitted conceptual compensation plan to Service for the proposed Cherry Ranch Development using the Margaret Preserve (Rafter Property) and the Christina Preserve (Hale Property).

September 22, 2004. Email from Dr. Fawcett to Ms. Goude regarding clarification on approval for California tiger salamander salvage on the Cherry Ranch Development project site.

September 28, 2004. Email from applicant to Ms. Goude that stated his intent to prepare a California tiger salamander salvage plan for the Cherry Ranch Development .

October 6, 2004. Mr. Waaland submitted a preconstruction survey plan to the Service.

October 7, 2004. Mr. Waaland submitted California tiger salamander Preconstruction (salvage) Plan for the Cherry Ranch Development . Emails from Dr. Fawcett to Ms. Goude and Ms. Goude's response. Emails were regarding salvage plan details (timing).

October 15, 2004. The Service approved the California tiger salamander salvage plan via a telephone call with the applicant.

October 18, 2004. Email from Dr. Fawcett to Ms. Goude and Mr. Griego regarding incidental take limitations of the salvage plan and email response from Ms. Goude.

October 19, 2004. Email from Ms. Goude to Dr. Fawcett regarding a clarification on the salvage plan. Also, email reply (response) from Dr. Fawcett.

October 20, 2004. The Service authorized translocation of California tiger salamander adults to the Todd Road Preserve via an email to applicant.

October 28, 2004. California Tiger Salamander Salvage Plan submitted to Service for Christina Preserve wetland restoration area.

December 8, 2004. Dr. Larry Stromberg, Mr. Rich and Dick Kirchner met with Ms. Goude to discuss the use of the Christina Preserve for Cherry Ranch.

October 25, 2005. Mr. Wickens of Corps staff requested initiation of formal consultation for the Project.

## **BIOLOGICAL OPINION**

### **Description of Proposed Action**

The proposed Cherry Ranch Development project (Project) site is 6.63 acres located at 930 Fresno Avenue in the southwest part of the City of Santa Rosa, Sonoma County, California (Assessor Parcel No. 035-101-004). The Project site is bounded on the west by Fresno Avenue, by commercial development and undeveloped land on the north, undeveloped land and the northern end of the north runway of the abandoned Santa Rosa Air Center on the east, and on the south by the north runway taxi way and undeveloped land. The north runway of the old Santa Rosa Air Center is immediately east of the Project site. The land on the west side of Fresno Avenue opposite the Project site consists of residential and rural residential housing. The Project consists of 39 single-family residential units. A "loop" street off of Fresno Avenue will provide access to 33 of the lots in the southern portion of the development. Access to the remaining six lots at the north end of the development will be from a stub street also off of Fresno Avenue that will terminate as a cul-de-sac.

Project Schedule and Phasing. Grading of the project site is expected to begin in 2007. The Project will be built and sold in phases based on market demand, which is expected to result in the Project being fully constructed within a two- to four-year time period. Model homes and the first phases of production homes will be constructed in 2006. Home construction will continue through 2008. The Project site improvements and infrastructure will be constructed in multiple phases although most major infrastructure, including storm water facilities and interior roads, will be installed during the first year of construction.

Storm Water Pollution Prevention. A Storm Water Pollution Prevention Plan (SWPPP) will be developed to prevent project construction impacts on habitat and waters draining outside the work areas. Erosion control will be accomplished using conventional techniques suitable for local conditions (soil type, slope, etc.). Applicable protection measures, such as barrier and/or silt fencing and regular on-site monitoring, will be used to protect against inadvertent impacts to areas outside the Project impact area during construction.

The applicant will also prepare a Storm Water Quality Management Plan to treat post-construction storm water runoff according to the standards promulgated by the Regional Water Quality Control Board (RWQCB) and implemented through the City of Santa Rosa. Under this plan, a designated portion of the runoff generated by rainfall will be subject to treatment by an approved method, such as bioswales, detention basin, etc., prior to being released to the City's storm water system. Nuisance flows generated during the non-rainy season due to runoff from residential landscaping activities, watering of park lawns, etc, will also be subject to treatment prior to being released to the City's storm water system.

Proposed Conservation Measures. To compensate for adverse effects to 5.49 acres of tiger salamander breeding, upland, dispersal and foraging habitat, and seasonal wetlands that support potential habitat for the federally listed plant species, the applicant will preserve 16.47 acres of tiger salamander breeding, upland, dispersal and foraging habitat at the Christina Preserve (Preserve). The Preserve supports 35.20 acres of tiger salamander habitat and will be transferred in fee title to the CDFG prior to groundbreaking for the Cherry Ranch Project. The remaining 18.73 acres (*i.e.* 35.2 minus 16.47 acres) of the Preserve may be used as compensation for another project adversely affecting tiger salamander habitat. The applicant has purchased 0.4-acre of wetland creation/restoration credits and 0.4-acre of vernal pool preservation credits for Sebastopol meadowfoam from the Hale Mitigation Bank (Ilan Silberstein Mitigation Bank). It is recognized that the Sebastopol meadowfoam preservation credits purchased from the Hale Mitigation Bank likely will be considered valid by the Service if the Service approves the Hale Mitigation Bank which is anticipated in February of 2006.

The Preserve is located at 1391 Todd Road in Santa Rosa (APN 134-051-026). It is adjacent to and west of the existing Engel Bank and adjacent to and east of the existing Hale Mitigation Bank. The proposed Preserve supports a mosaic of habitats, including vernal pools, seasonal wetlands and tiger salamander breeding and upland habitat. Once established, the Preserve will be managed according to the *Management Plan, Christina Preserve, Santa Rosa, California. Established for the Cherry Ranch Development Project, November 14, 2005* (Management Plan).

### **Summary of Christina Preserve and its Management**

The Preserve is located on a portion of a 41.3-acre parcel belonging to the Walter Hale and Helen A. Hale Revocable Trust. CDFG has agreed to prepare all necessary documents on behalf of the Christina Preserve LLC to conduct a lot-line subdivision of the 41.3 acre Walter Hale and Helen A. Hale Revocable Trust parcel into a 6.1-acre parcel and a 35.20-acre parcel. At the close of escrow for purchase of the 35.20-acre Preserve by Christina Preserve LLC, the 35.20 acre parcel will be transferred in fee title to CDFG. The applicant will provide documentation of the completed transaction to the Service within 30 days of the completed transaction.

Short-term Maintenance and Contingency Funds. The applicant will undertake and have responsibility for short-term maintenance and management of the 16.47 acres of the Preserve being used as mitigation for impacts to tiger salamander, endangered plants, and wetlands resulting from the Project during the initial five-year monitoring period according to the provisions of the Management Plan. The applicant will provide an endowment, bond or other acceptable security as a contingency security to CDFG. The amount of the contingency security shall cover the expected management and maintenance costs during the five-year interim management period. The amount will need to be agreed upon with the CDFG prior to groundbreaking.

Enhancement. Enhancement efforts will be accomplished within 4 months of acquisition of Christina Preserve by CDFG. The footprint of disturbance includes approximately 0.35 acres. All structures and foundations, plumbing, and associated improvements within the preserve

boundary will be demolished and hauled to the Davis recycling facility about 1,000 feet to the east of the Christina Preserve. All disturbed ground will be re-contoured as closely as possible to the previously existing terrain, as indicated by historic aerial photo research. Orange construction fence will be constructed approximately 10 feet from the disturbance footprint to ensure motorized vehicles will not unnecessarily stray into adjacent habitat. Work will be done during daylight hours, on clear days, and at least two days following any rainfall event. Debris piles will be removed carefully under the direction of the on-site biologist (*i.e.* biologist listed on Dr. Michael Fawcett's Section 10 (a) (1) (A) permit). The biologist will check the debris in contact with the ground for possible tiger salamanders prior to removal of the debris. To the extent possible, debris will be moved by hand. In the event that tiger salamanders are encountered during the work, the on-site biologist will capture and relocate the animal at least 500 feet to the north on the Christina Preserve and release it into a gopher burrow. The biologist will notify the Service and CDFG of any such encounter and relocation action within 48 hours.

Long-term Management. The Preserve will be managed in accordance with the Management Plan, as approved by the Service and CDFG. Management will be adaptive, established initially and modified as necessary based on the results of the monitoring program to maintain the wetlands and upland habitat for the listed species on the Preserve. Livestock grazing will be used as a management tool to reduce wildfire fuel loads, and maintain and improve grassland habitat species diversity. Grazing will be conducted in a manner to achieve the goals established by the Service and CDFG.

Financial Assurances. Prior to groundbreaking for construction of the Project, the applicant will provide an irrevocable letter of credit to cover the cost the short-term monitoring and maintenance program. The amount of the funding for short-term monitoring and maintenance and longer-term monitoring and perpetual management and maintenance of the Preserve must be approved and accepted by the Service and CDFG. Prior to groundbreaking for the construction of the Project, the applicant will provide the Service and the Corps documentation that: (1) funds for the perpetual management of the Preserve have been transferred to the CDFG (2) the CDFG has accepted the funds and considers them adequate; and (3) that these funds have been deposited in an account (*i.e.* endowment) that will provide adequate financing for the monitoring and perpetual management and maintenance of the Preserve.

#### Monitoring Program

The proposed monitoring program include the following elements:

1. Monitor presence of tiger salamanders by conducting larval surveys every other year. All potential or known breeding ponds will be sampled at an appropriate time, generally between March 1 and April 20. Conduct tiger salamander larval surveys using standard dip-netting procedures consistent with standard CDFG and Service protocols. Assess presence and abundance by total larvae netted, recognizing this provides only a general abundance level for considering trends. Visually observe the site for changes to tiger salamander habitat, such as burrow abundance, vegetation height and composition, and

pond depth and duration. Record any observed changes. Approximate the abundance of aestivation sites every other year by counting gopher mounds, gopher holes, and other potential aestivation sites.

2. Monitor status of Sebastopol meadowfoam every two years by conducting population assessment surveys. The annual survey dates will be selected during the appropriate blooming period and will generally occur from late March through April depending on the timing of the blooming period each year. Pools with Sebastopol meadowfoam will be mapped and numbered with the aid of a GPS unit to allow repeatable data collection over subsequent survey years. Abundance will be assessed semi-quantitatively using broad abundance categories, i.e., 1 - 50, 51 - 100, 101 - 500, 501 - 1,000, >1,000, >5,000 plants. Visually observe pools for changes to Sebastopol meadowfoam habitat, such as changed hydrology or vegetation composition.
3. Monitor general wetland status by recording any major changes in hydrology, such as decreased or increased ponding, or changes in water input or output on the site and recording vegetation composition by species. Descriptively compare vegetation composition to prior years' composition.

Annual monitoring of the Preserve to identify and map areas where invasive species have become established and development treatment protocols to eliminate invasive species, especially in areas where the invasive species would have adverse impacts on habitat for Sebastopol meadowfoam and tiger salamander.

### **Actions Taken to Minimize Impacts to California Tiger Salamander from the Construction of the Cherry Ranch Development**

The following minimization measures will be implemented for the proposed project. They are divided into three categories: protective measures instituted before or during the construction phase that will serve to avoid and minimize effects; avoidance and minimization protocols conducted before any ground disturbance begins to avoid or minimize take; and conservation of habitat.

#### Protective Measures

1. A duly trained monitor will be present at all times when work is in progress at the project site and compensation site to supervise the on-site compliance of these protection measures. A Service-approved biologist will be responsible for appropriate training of the monitor.
2. A training session will be given by the biologist to all construction workers before work is started on the project. After initial training, all new personnel will be given the training as well. The training session will provide pictures of the tiger salamander, information on their biology, measures required to protect these species, relevant Federal and state regulations, penalties to harming or harassing the tiger salamander, and what to

do if tiger salamanders are found.

3. If a tiger salamander is observed within the project site by a worker, the worker will immediately inform the monitor. The monitor will notify the biologist immediately. All work will halt and machinery turned off within 100 feet of the animal until a biologist can capture and remove the tiger salamander from the work area. Service-approved biologists are the only personnel allowed to handle tiger salamander. Tiger salamanders found in the work area will be relocated to pre-approved areas no more than one hour after capture.
4. The monitor and the biologist have the authority to halt work activities at any time to prevent harming special status species or when any of these protective measures have been violated. Work will only commence when authorized by the monitor or biologists.
5. Before the start of work each morning, the monitor will check for animals under any equipment such as vehicles and stored pipes.
6. Before the start of work each morning, the monitor will check all excavated steep-walled holes or trenches greater than one foot deep for any wildlife. Wildlife will be removed; the biologist will be notified if tiger salamanders are found.
7. A record of all tiger salamanders observed and the outcome of that observation will be kept by the biologist and submitted to the Service.
8. Access routes and number and size of staging and work areas will be limited to the minimum necessary to achieve the project goals. Routes and boundaries of the road work will be clearly marked. Off-road driving will be limited to only what is necessary for the project.
9. All foods and food-related trash items, such as lunch bags, plastic sandwich bags, fast food containers, foods of any type, candy wrappers, chip packages, drink bottles and cans, etc., will be enclosed in sealed trash containers and removed completely from the site once every three days. Food items could attract predators into the work area.
10. No pets are allowed anywhere in the project site during construction.
11. A speed limit of 15 mph on dirt roads will be maintained.
12. All equipment will be maintained such that there will be no leaks of automotive fluids such as gasoline, oils, or solvents.
13. 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.
14. A pollution prevention plan and the identification of best management practices to control storm water discharge, erosion, and sedimentation will be developed and implemented.

15. All grading and clearing will be conducted between April 15 and October 15 of any given year.
16. Project areas outside of the footprint of the development that have been disturbed by construction activities will be re-vegetated with native plants

#### Avoidance and Minimization Protocols.

At the Project site, the applicant will use a fence-and-bucket system to actively relocate tiger salamanders from the work area. The fence-and-bucket system will prevent migrating adults and juveniles from remaining within the work areas and allow those that have aestivated within these areas to disperse toward the breeding ponds. The following are the main elements of the Avoidance and Minimization Protocols:

1. Active Relocation. The applicant installed a fence-and-bucket tiger salamander system in the fall of 2004 prior to initiating ground disturbance at the Cherry Ranch project site. This system has resulted in the capture and relocation of tiger salamanders as guided by the Service. Tiger salamanders will continue to be removed from the development site throughout the fall/winter of 2005-06. The fence-and-bucket system was designed to capture tiger salamanders that are within the development footprint and provide the migrating tiger salamander the opportunity to disperse toward other breeding ponds within the Santa Rosa Air Center Lands. Tiger salamanders that are trying to migrate to the breeding ponds within the Project site will be prevented from entering the on-site the breeding pond, captured and translocated to the CDFG Todd Road Preserve.
2. Larval Translocation from Development Site. Tiger salamander larvae will be collected from the on-site breeding pond using dip-nets and funnel traps and re-located to a suitable Service-approved breeding pond(s).

#### **Action Area**

The *Action Area* is defined by the Code of Federal Regulations as "all areas to be affected directly or indirectly by the Federal Action, and not merely the immediate area involved in the action." (50 CFR 402.02). The action area for the proposed Project includes the 6.63-acre project site and the 35.20 acre Christina Preserve compensation site.

#### **Status of the Species**

##### Tiger Salamander

The Sonoma County Distinct Population Segment of the California tiger salamander was emergency listed as endangered on July 22, 2002 (67 FR 47726). The salamander was listed as endangered on March 19, 2003 (68 FR 13497). The California tiger salamander was listed as threatened on August 4, 2004 (69 FR 47212). This latter listing changed the status of the Santa Barbara and Sonoma county populations from endangered to threatened. On August 10, 2004,

the Service proposed 47 critical habitat units in 20 counties. No critical habitat was proposed for Sonoma County. On October 13, 2004, a complaint was filed in the U.S. District Court for the Northern District of California (Center for Biological Diversity and Environmental Defense Council v. U.S. Fish and Wildlife Service *et al.*). On February 3, 2005, the District Court required the Service to submit for publication in the **Federal Register**, a final determination on the proposed critical habitat designation on or before December 1, 2005. On August 2, 2005, the Service noticed in the **Federal Register** a proposed critical habitat designation (70 **FR** 44301). On August 19, 2005, a court order was filed on the above complaint, which upheld the section 4(d) rule exempting grazing from Section 9 prohibitions, but vacated the downlisting of the Santa Barbara and Sonoma populations and reinstated their endangered distinct population segment status. On December 14, 2005, (70 **FR** 74138), we made a final determination to designate and exclude approximately 17,418 acres (7,049 hectares) of critical habitat for the Sonoma population. All of critical habitat was excluded based on interim conservation strategies and measures being implemented by those local governing agencies with land use authority over the area and also as a result of economic exclusions authorized under section 4(b)(2) of the Act. Therefore, no critical habitat was designated for the Sonoma County Distinct Population Segment of the California tiger salamander in Sonoma County, California.

Historically, the tiger salamander inhabited low elevation grassland and oak savanna plant communities of the Central Valley, and adjacent foothills, and the inner coast ranges in California (Jennings and Hayes 1994; Storer 1925; Shaffer *et al.* 1993). The species has been recorded from near sea level to approximately 3,900 feet (1188.7 meters) in the Coast Ranges and to approximately 1,600 feet (487.7 meters) in the Sierra Nevada foothills (Shaffer *et al.* 2004). Along the coast ranges, the species occurred from the Santa Rosa area of Sonoma County, south to the vicinity of Buellton in Santa Barbara County. The historic distribution in the Central Valley and surrounding foothills included northern Yolo County southward to northwestern Kern County and northern Tulare County.

The Sonoma County Distinct Population Segment of the California tiger salamander is discrete in relation to the remainder of the species. The population is geographically isolated and separate from other California tiger salamanders. The Sonoma County population is widely separated geographically from the closest populations, which are located in Contra Costa, Yolo, and Solano counties. These populations are separated from the Sonoma County population by the Coast Range, Napa River, and the Carquinez Straits, at a minimum distance of approximately 45 miles (72 kilometers). There are no known records of the California tiger salamander in the intervening areas (D. Warenycia, California Department of Fish and Game, personal communication with the Service, 2002). We have no evidence of natural interchange of individuals between the Sonoma County population and other California tiger salamander populations.

Sonoma County Distinct Population Segment of the California tiger salamander inhabits low-elevation (below 300 feet [91 meters]) vernal pools and seasonal ponds, associated grassland, and oak savannah plant communities. The historic range of the Sonoma County population also

may have included the Petaluma River watershed, as there is one historic record of a specimen from the vicinity of Petaluma from the mid-1800s (Borland 1856, as cited in Storer 1925). The tiger salamander is a large, stocky, terrestrial salamander with a broad, rounded snout. Adults may reach a total length of 8.2 inches (Petranka 1998). Tiger salamanders exhibit sexual dimorphism; males tend to be larger than females. The coloration of the tiger salamander is white or yellowish markings against black. As adults, California tiger salamanders tend to have the creamy yellow to white spotting on the sides with much less on the dorsal surface of the animal, whereas other tiger salamander species have brighter yellow spotting that is heaviest on the dorsal surface.

The tiger salamander has an obligate biphasic life cycle (Shaffer *et al.* 2004). Although the larvae salamanders develop in the vernal pools and ponds in which they were born, they are otherwise terrestrial salamanders and spend most of their postmetamorphic lives in widely dispersed underground retreats (Shaffer *et al.* 2004; Trenham *et al.* 2001). Subadult and adult tiger salamanders spend the dry summer and fall months of the year in the burrows of small mammals, such as California ground squirrels (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*) (Storer 1925; Loredó and Van Vuren 1996; Petranka 1998; Trenham 1998a). Because they spend most of their lives underground, tiger salamanders are rarely encountered, even in areas where they are abundant.

Tiger salamanders may also use landscape features such as leaf litter or desiccation cracks in the soil for upland refugia. Burrows often harbor camel crickets and other invertebrates that provide likely prey for tiger salamanders. Underground refugia also provides protection from the sun and wind associated with the dry California climate that can cause excessive drying of amphibian skin. Although California tiger salamanders are members of a family of "burrowing" salamanders, they are not known to create their own burrows. This may be due to the hardness of soils in the California ecosystems in which they are found. California tiger salamanders typically use the burrows of ground squirrels and gophers (Loredó *et al.* 1996; Trenham 1998a). However, Dave Cook (Sonoma County Water Agency, personal communication with the Service, 2001) found that pocket gopher burrows are most often used by California tiger salamanders in Sonoma County. Tiger salamanders depend on persistent small mammal activity to create, maintain, and sustain sufficient underground refugia. Burrows are short lived without continued small mammal activity and typically collapse within approximately 18 months (Loredó *et al.* 1996).

Upland burrows inhabited by tiger salamanders have often been referred to as "estivation" sites. However, "estivation" implies a state of inactivity, while most evidence suggests that tiger salamanders remain active in their underground dwellings. A recent study has found that tiger salamanders move, feed, and remain active in their burrows (Van Hattem 2004). Because tiger salamanders arrive at breeding ponds in good condition and are heavier when entering the pond than when leaving, researchers have long inferred that tiger salamanders are feeding while underground. Recent direct observations have confirmed this (Trenham 2001; van Hattem 2004). Thus, "upland habitat" is a more accurate description of the terrestrial areas used by tiger salamanders.

Once fall or winter rains begin, the salamanders emerge from the upland sites on rainy nights to feed and to migrate to the breeding ponds (Stebbins 1985, 1989; Shaffer *et al.* 1993). Adult salamanders mate in the breeding ponds, after which the females lay their eggs in the water (Twitty 1941; Shaffer *et al.* 1993; Petranka 1998). Historically, the tiger salamander utilized vernal pools, but the animals also currently breed in livestock stockponds. Females attach their eggs singly, or in rare circumstances, in groups of two to four, to twigs, grass stems, vegetation, or debris (Storer 1925; Twitty 1941). In ponds with no or limited vegetation, they may be attached to objects, such as rocks and boards on the bottom (Jennings and Hayes 1994). After breeding, adults leave the pool and return to the small mammal burrows (Loredo *et al.* 1996; Trenham 1998a), although they may continue to come out nightly for approximately the next two weeks to feed (Shaffer *et al.* 1993). In drought years, the seasonal pools may not form and the adults can not breed (Barry and Shaffer 1994).

Tiger salamander larvae typically hatch within 10 to 24 days after eggs are laid (Storer 1925). The peak emergence of these metamorphs is typically between mid-June to mid-July (Loredo and Van Vuren 1996; Trenham *et al.* 2000). The larvae are totally aquatic and range in length from approximately 0.45 to 0.56 inches (1.14 to 1.42 centimeters) (Petranka 1998). They have yellowish gray bodies, broad flat heads, large feathery external gills, and broad dorsal fins extending well up their back. The larvae feed on zooplankton, small crustaceans, and aquatic insects for about six weeks after hatching, after which they switch to larger prey (J. Anderson 1968). Larger larvae have been known to consume the tadpoles of Pacific treefrogs (*Pseudacris regilla*), Western spadefoot toads (*Spea hammondi*), and California red-legged frogs (*Rana aurora draytonii*) (J. Anderson 1968; P. Anderson 1968). Tiger salamander larvae are among the top aquatic predators in seasonal pool ecosystems. When not feeding, they often rest on the bottom in shallow water but are also found throughout the water column in deeper water. Young salamanders are wary and typically escape into vegetation at the bottom of the pool when approached by potential predators (Storer 1925).

The larval stage of the tiger salamander usually last three to six months, as most seasonal ponds and pools dry up during the summer (Petranka 1998). Amphibian larvae must grow to a critical minimum body size before they can metamorphose (change into a different physical form) to the terrestrial stage (Wilbur and Collins 1973). Individuals collected near Stockton in the Central Valley during April varied from 1.88 to 2.32 inches in length (Storer 1925). Feaver (1971) found that larvae metamorphosed and left the breeding pools 60 to 94 days after the eggs had been laid, with larvae developing faster in smaller, more rapidly drying pools. The longer the ponding duration, the larger the larvae and metamorphosed juveniles are able to grow, and the more likely they are to survive and reproduce (Pechmann *et al.* 1989; Semlitsch *et al.* 1988; Morey 1998; Trenham 1998b). The larvae will perish if a site dries before metamorphosis is complete (P. Anderson 1968; Feaver 1971). Pechmann *et al.* (1989) found a strong positive correlation with ponding duration and total number of metamorphosing juveniles in five salamander species. In Madera County, Feaver (1971) found that only 11 of 30 pools sampled supported larval California tiger salamanders, and 5 of these dried before metamorphosis could occur. Therefore,

out of the original 30 pools, only six (20 percent) provided suitable conditions for successful reproduction that year. Size at metamorphosis is positively correlated with stored body fat and survival of juvenile amphibians, and negatively correlated with age at first reproduction (Semlitsch *et al.* 1988; Scott 1994; Morey 1998). In the late spring or early summer, before the ponds dry completely, metamorphosed juveniles leave them and enter upland habitat. This emigration occurs in both wet and dry conditions (Loredo and Van Vuren 1996; Loredo *et al.* 1996). Unlike during their winter migration, the wet conditions that California tiger salamanders prefer do not generally occur during the months when their breeding ponds begin to dry. As a result, juveniles may be forced to leave their ponds on rainless nights. Under these conditions, they may move only short distances to find temporary upland sites for the dry summer months, waiting until the next winter's rains to move further into suitable upland refugia. Once juvenile tiger salamanders leave their birth ponds for upland refugia, they typically do not return to ponds to breed for an average of 4 to 5 years. However, they remain active in the uplands, coming to the surface during rainfall events to disperse or forage (Trenham and Shaffer, 2005).

Lifetime reproductive success for California and other tiger salamanders is low. Trenham *et al.* (2000) found the average female bred 1.4 times and produced 8.5 young that survived to metamorphosis per reproductive effort. This resulted in roughly 11 metamorphic offspring over the lifetime of a female. Two reasons for the low reproductive success are the preliminary data suggests that most individuals of the tiger salamanders require two years to become sexually mature, but some individuals may be slower to mature (Shaffer *et al.* 1993); and some animals do not breed until they are four to six years old. While individuals may survive for more than ten years, many breed only once, and in some populations, less than 5 percent of marked juveniles survive to become breeding adults (Trenham 1998b). With such low recruitment, isolated populations are susceptible to unusual, randomly occurring natural events as well as from human caused factors that reduce breeding success and individual survival. Factors that repeatedly lower breeding success in isolated pools can quickly extirpate a population.

Dispersal and migration movements made by tiger salamanders can be grouped into two main categories: (1) breeding migration; and (2) interpond dispersal. Breeding migration is the movement of salamanders to and from a pond from the surrounding upland habitat. After metamorphosis, juveniles move away from breeding ponds into the surrounding uplands, where they live continuously for several years. At a study in Monterey County, it was found that upon reaching sexual maturity, most individuals returned to their natal/ birth pond to breed, while 20 percent dispersed to other ponds (Trenham *et al.* 2001). Following breeding, adult tiger salamanders return to upland habitats, where they may live for one or more years before breeding again (Trenham *et al.* 2000).

Tiger salamanders are known to travel large distances from breeding ponds into upland habitats. Maximum distances moved are generally difficult to establish for any species, but tiger salamanders in Santa Barbara County have been recorded to disperse 1.3 miles from breeding ponds (Sweet, *in litt.* 1998). Tiger salamanders are known to travel between breeding ponds; one study found that 20 to 25 percent of the individuals captured at one pond were recaptured later at

ponds approximately 1,900 and 2,200 feet away (Trenham *et al.* 2001). In addition to traveling long distances during migration to or dispersal from ponds, tiger salamanders may reside in burrows that are far from ponds.

Although the observations above show that tiger salamanders can travel far, typically they stay closer to breeding ponds. Evidence suggests that juvenile tiger salamanders disperse further into upland habitats than adult tiger salamanders. A trapping study conducted in Solano County during winter of 2002/2003 found that juveniles used upland habitats further from breeding ponds than adults (Trenham and Shaffer, 2005). More juvenile salamanders were captured at distances of 328, 656, and 1,312 feet from a breeding pond than at 164 feet. Large numbers, approximately 20 percent of total captures, were found 1,312 feet from a breeding pond. Fitting a distribution curve to the data revealed that 95 percent of juvenile salamanders could be found within 2,099 feet of the pond, with the remaining 5 percent being found at even greater distances. Preliminary results from the 2003-04 trapping efforts detected juvenile tiger salamanders at even further distances, with a large proportion of the total salamanders caught at 2,297 feet from the breeding pond (Trenham *et al.*, 2005). During post-breeding emigration, radio-equipped adult tiger salamanders were tracked to burrows 62 to 813 feet from their breeding ponds (Trenham 2001). These reduced movements may be due to adult California tiger salamanders having depleted physical reserves post-breeding, or also due to the drier weather conditions that can occur during the period when adults leave the ponds.

In addition, rather than staying in a single burrow, most individuals used several successive burrows at increasing distances from the pond. Although the studies discussed above provide an approximation of the distances that tiger salamanders regularly move from their breeding ponds, upland habitat features will drive the details of movements in a particular landscape. Trenham (2001) found that radio-tracked adults favored grasslands with scattered large oaks, over more densely wooded areas. Based on radio-tracked adults, there is no indication that certain habitat types are favored as corridors for terrestrial movements (Trenham 2001). In addition, at two ponds completely encircled by drift fences and pitfall traps, captures of arriving adults and dispersing new metamorphs were distributed roughly evenly around the ponds. Thus, it appears that dispersal into the terrestrial habitat occurs randomly with respect to direction and habitat types.

Several species have either been documented to prey or likely prey upon the tiger salamanders including coyotes (*Canis latrans*), raccoons (*Procyon lotor*), opossums (*Didelphis virginiana*), egrets (*Egretta species*), great blue herons (*Ardea herodias*), crows (*Corvus brachyrhynchos*), ravens (*Corvus corax*), bullfrogs (*Rana catesbeiana*), mosquito fish (*Gambusia affinis*), and crayfish (*Procambarus species*).

The tiger salamanders are imperiled throughout its range by a variety of human activities (U.S. Fish and Wildlife Service 2004). Current factors associated with declining populations of the salamander include continued degradation and loss of habitat due to agriculture and urbanization, hybridization with non-native eastern tiger salamanders (*Ambystoma tigrinum*) (Fitzpatrick and

Shaffer 2004; Riley *et al.* 2003), and introduced predators. Fragmentation of existing habitat and the continued colonization of existing habitat by non-native tiger salamanders (*Ambystoma tigrinum* and other species) may represent the most significant current threats to tiger salamanders, although populations are likely threatened by more than one factor. Isolation and fragmentation of habitats within many watersheds have precluded dispersal between subpopulations and jeopardized the viability of metapopulations (broadly defined as multiple subpopulations that occasionally exchange individuals through dispersal, and are capable of colonizing or “rescuing” extinct habitat patches). Other threats are predation and competition from introduced exotic species; possible commercial overutilization; disease; various chemical contaminants; road-crossing mortality; and certain unrestrictive mosquito and rodent control operations.

Between 2001 and 2002, five breeding sites for Sonoma County Distinct Population Segment of the California tiger salamander have been destroyed. Loss of real and potential salamander breeding sites, upland refugia, dispersal, and foraging habitat continues to occur in the Santa Rosa Plain. To date, there have been eleven biological opinions (i.e. Section 7 formal consultations) authorizing incidental take to all individuals inhabiting 337.75 acres of tiger salamander habitat since the emergency listing on July 22, 2002. Two of these eleven biological opinions address adverse and beneficial effects associated with the construction of seasonal wetlands and creation of tiger salamander breeding habitat and establishment of Sebastopol meadowfoam and Sonoma sunshine populations. These two sites are known as the Hazel Mitigation Bank and the Slippery Rock Conservation Bank and are proceeding forward through the process to become a Mitigation Bank and Conservation Bank respectively (Banks). The temporary ground disturbance associated with these Banks include approximately 139.06 acres, therefore there has been 198.69 acres of permanent tiger salamander habitat loss permitted by the Service through Section 7 consultations with the Corps. The other nine biological opinions have integrated in their project proposals to conserve 223.48 acres of tiger salamander habitat at Service approved locations within Sonoma County via the purchase of mitigation or conservation credits, recording conservation easements, or offering fee title to the CDFG or another Service approved entity.

#### Burke's goldfields

Burke's goldfields was federally listed as endangered on December 2, 1991 (56 **FR** 61173). No critical habitat has been designated for this species. Burke's goldfields is an annual herb in the aster family (Asteraceae). Plants are typically less than 30 cm in height (Hickman 1993) and usually branched (California Native Plant Society (CNPS) 1977). Leaves are opposite, less than 5 cm in length, and pinnately lobed. Yellow, daisy-like inflorescences with separate involucre bracts (leaf-like structures beneath the flower head) appear from approximately April through June (Skinner and Pavlik 1994). Fruits are achenes (dry, one-seeded fruits) less than 1.5 mm in length. The fruits of Burke's goldfields can be distinguished from those of other goldfields by the presence of one long awn (bristle and numerous short scales) (Hickman 1993). Individual Burke's goldfields plants may exhibit some geographic variation in morphology (McCarten 1985

as cited in CH2M Hill 1995, Patterson *et al.* 1994). Patterson *et al.* (1994) report robust specimens from the southern Santa Rosa Plain near the Laguna de Santa Rosa and variation in the number of awns from a Lake County population. Burke's goldfields can be distinguished from smooth goldfields (*Lasthenia glaberrima*) because smooth goldfields have partly fused involucre bracts and a pappus (ring of scale-like or hair-like projections at the crown of an achene) of numerous narrowed scales. The linear leaves without lobes distinguish common goldfields (*Lasthenia californica*) from Burke's goldfields (Hickman 1993).

Burke's goldfields is endemic to the central California Coastal Range region and has been reported historically from Mendocino, Lake, and Sonoma counties (CNPS 1977, Patterson *et al.* 1994). The type locality of Burke's goldfields is the only known occurrence from Mendocino County and is possibly extirpated. Two California Natural Diversity Database (CNDDB) occurrences are recorded from Lake County, at Manning Flat and at a winery on Highway 29. Both Lake County occurrences are presumed extant. The remaining occurrences are from Sonoma County (CNDDB 1998). Within Sonoma County, one occurrence is known from north of Healdsburg (Patterson *et al.* 1994). On the Santa Rosa Plain, Burke's goldfields is distributed primarily in the northwestern and central areas with two additional occurrences south of Highway 12 near the Laguna de Santa Rosa (CH2M Hill 1995). The core of the current range of Burke's goldfields is in the Santa Rosa Plain.

Burke's goldfields grow in vernal pools and swales below 500 meters (m) (Hickman 1993). At the Manning Flat occurrence in Lake County, Burke's goldfields is found in a series of claypan vernal pools on volcanic ash soils (56 FR 61173, CNDDB 1998). At this location, the species is associated with common goldfields and few-flowered navarretia (*Navarretia leucocephala pauciflora*) (CNDDB 1998). In Sonoma County, the vernal pools containing Burke's goldfields are on nearly level to slightly sloping loams, clay loams, and clays. A clay layer or hardpan approximately 0.6 to 0.9 m below the surface restricts downward movement of water (56 FR 61173). Huichica loam is the predominant soil series on which Burke's goldfields is found on the northern part of the Santa Rosa Plain (Patterson *et al.* 1994, CNDDB 1998). Huichica loam is a fine textured clay loam over buried dense clay and cemented layers (Patterson *et al.* 1994). More southerly Burke's goldfields sites likely occur on Wright loam or Clear Lake clay (Patterson *et al.* 1994, CNDDB 1998). Wright loam is a fine silty loam over buried dense clay and marine sediments. Clear Lake clay is hard dense clay from the surface to many feet thick (Patterson *et al.* 1994). Burke's goldfields sometimes occurs along with Sonoma sunshine and Sebastopol meadowfoam (*Limnanthes vinculans*). These three federally listed species are all associated with other plants that commonly grow in vernal pools on the Santa Rosa Plain, including Douglas' pogogyne (*Pogogyne douglasii* spp. *parviflora*), Lobb's aquatic buttercup (*Ranunculus lobbii*), smooth goldfields, California semaphore grass (*Pleuropogon californicus*), maroonspot downingia (*Downingia concolor*), and button-celery (*Eryngium* sp.) (CNDDB 1998). The flowers of Burke's goldfields are self-incompatible (Ornduff 1966, Crawford and Ornduff 1989) and insect-pollinated. Seed banks are of particular importance to annual plant species which are subject to uncertain or variable environmental conditions (Cohen 1966, 1967; Parker *et*

*al.* 1989; Templeton and Levin 1979). Burke's goldfields fit this criterion; it is an annual species living in California's highly variable Mediterranean climate.

No information exists with respect to the seed life of Burke's goldfields. Circumstantial evidence suggests that Burke's goldfields successfully germinated from seed in soil collected from a previously developed portion of the Westwind Business Park (Building F) when the soil was translocated and deposited in created seasonal wetlands (C. Wilcox, CDFG, 2000 *in litt.*). As annual species, it is expected that Burke's goldfields and Sonoma sunshine will respond to environmental stochastic events, such as changes in vegetative composition, climate, and disturbance, by partial germination of its seed bank. Baskin *et al.* (1998) indicate that species (annuals) adapted to "risky environments" produce persistent seed banks to offset years of low reproductive success and to ensure the species can persist at a site without immigration. These characteristics can be attributed to Burke's goldfields. Considering the adaptations of these plants to a variable Mediterranean climate it is likely the seed of Burke's goldfields can persist as dormant embryos for an undetermined number of years. Therefore, it is likely that populations of these species may persist undetected for a period of years until conditions are favorable to allow germination. Although formal studies of seed viability have not been conducted for these species, it is reasonable to expect their seed banks may persist for extended periods without germination. Furthermore, it is not unlikely that the individual fruits of Burke's goldfields may be predisposed to variable germination requirements as a strategy for survival.

For species that develop long-lived seed banks, a census of plants growing above ground may not accurately reflect the total number of plants at the site (Rice 1989, Given 1994). Population sizes of California's vernal pool/swale annual plant species, including Burke's goldfields, may fluctuate substantially between very high numbers in some years to very small numbers, or even absence in other years because of varying environmental conditions. Therefore, total extirpation cannot be assumed when above-ground plants of these species are not observed at a site. Furthermore, declines in population size over a few years may not necessarily indicate that habitat is unsuitable (Given 1994), merely that environmental conditions within a vernal pool or swale have not favored seed germination.

Burke's goldfields is threatened with habitat loss, fragmentation, and degradation throughout all or part of its range by factors including urbanization, agricultural land use changes, alterations in hydrology, and erosion (CNPS 1977, 56 **FR** 61173, Patterson *et al.* 1994, CH2M Hill 1995, CNDDDB 1998). The only known Mendocino County occurrence is presumably extirpated (CH2M Hill 1995). The Manning Flat occurrence, located on private land in Lake County, is the largest known occurrence of the species and is threatened by extensive gully erosion that is destroying the habitat (CH2M Hill 1995, CNDDDB 1998). The second Lake County occurrence is on property owned by a winery. Recent reports suggest that some damage to this population has resulted from vineyard operations (R. Chan, University of California, Berkeley, 1998 *in litt.*). However, in the past the winery owners appeared willing to coordinate with the Service and the Corps to avoid and/or minimize further damage to the site (N. Haley, Corps, 1998 pers. comm.). On the Santa Rosa Plain, many Burke's goldfields locations have been extirpated due to

urbanization and conversion of land to row crops. Formerly well-represented in the vicinity of Windsor, Burke's goldfields has now been nearly extirpated from the area (Patterson *et al.* 1994, CH2M Hill 1995).

Of the 48 known records of Burke's goldfields, 26 are presumed to remain extant, with a majority found on the Santa Rosa Plain. Four populations occur outside of the Santa Rosa Plain, of which only two populations, one in northern Healdsburg and one at the Ployes winery, are extant.

### Sonoma sunshine

Sonoma sunshine was federally listed as endangered on December 2, 1991 (56 FR 61173). No critical habitat has been designated for this species. Sonoma sunshine is an annual plant in the aster family. Plants are less than 30 cm (11.8 in) tall with alternate, linear leaves (CNPS 1977, Hickman 1993). The lower leaves are entire, and the upper leaves have one to three lobes that are 1 to 3 cm (0.4 to 1.2 in) deep (Hickman 1993). The daisy-like flower heads of Sonoma sunshine are yellow. The ray flowers have dark red stigmas. The disk flowers have white stigmas and white pollen but are otherwise yellow. Achenes are 3 to 4 mm (0.1 to 0.15 in) long with small rounded or conic proturbences (papillate) and 4 to 6 strongly angled edges (CNPS 1997, Hickman 1993). Sonoma sunshine could be confused with common stickseed (*Blennosperma nanum*); however, Sonoma sunshine has longer and fewer lobes on the leaves and is more robust (CNPS 1977). The flowers of Sonoma sunshine are self-incompatible, meaning that they can set seed only when fertilized by pollen from a different plant.

Sonoma sunshine occurs only in Sonoma County. In the Cotati Valley, the species ranges from near the community of Fulton in the north to Scenic Avenue between Santa Rosa and Cotati in the south. Additionally, the species extends or extended from near Glen Ellen to near the junction of State Routes 116 and 121 in the Sonoma Valley. During 2001, two new natural populations were identified north and south of the City of Santa Rosa, increasing the number of previously identified CNDDDB occurrences from 26 to 28. Of the 28 occurrences, 21 are presumed to be extant with a majority occurring on the Santa Rosa Plain and one occurring in Glen Ellen. In addition, Sonoma sunshine has been introduced to at least one site on Alton Lane during mitigation activities. Seven populations within or near the City of Santa Rosa have been extirpated.

Sonoma sunshine grows in vernal pools and wet grasslands below 100 m (330 ft) (Hickman 1993). In the Sonoma and Cotati valleys, Sonoma sunshine occurs in vernal pools on nearly level to slightly sloping loams, clay loams, and clays, as described for Burke's goldfields (56 FR 61173). The two concentrations of Sonoma sunshine on the Santa Rosa Plain occur on different soil types (Patterson *et al.* 1994). Sonoma sunshine likely grows on Huichica loam north of

Highway 12 and on Wright loam and Clear Lake clay south of Highway 12 (Patterson *et al.* 1994, CNDDDB 1998). These soil series are briefly described in the discussion of Burke's goldfields habitat above.

Sonoma sunshine is threatened with habitat loss, fragmentation, and degradation throughout all or part of its range by factors including urbanization, agricultural land use changes, and alterations in hydrology (Patterson *et al.* 1994, CH2M Hill 1995, CNDDDB 1998). In the Sonoma Valley, two of five known occurrences have been extirpated. One was extirpated by habitat destruction in 1986, and the area is now a vineyard. At the second site, most habitat was destroyed by grading for home sites in 1980; the remainder was converted to vineyard or overtaken by weeds (CNDDDB 1998). Of the presumed extant Sonoma Valley occurrences, one locality has been largely developed. A small area was retained by CDFG when the development took place, but Sonoma sunshine has not been recorded from this area since the subdivision was developed (Service files). A second Sonoma Valley locale is currently pasture. A portion of the occurrence may have been disced, and the landowners of a second portion want to convert the locale to vineyard (C. Wilcox, 1998, pers. comm., Service files). The third Sonoma Valley occurrence is in Sonoma Valley Regional Park, which is not managed for conservation (CNDDDB 1998). On the Santa Rosa Plain, one locale has probably been extirpated by completion of a subdivision and one locale by major land alterations on the locale (CNDDDB 1998). Of the presumed extant locales, some support severely degraded habitat, are threatened by development, or have not supported confirmed populations of Sonoma sunshine in recent years (CH2M Hill 1995, CNDDDB 1998).

#### Sebastopol meadowfoam

Sebastopol meadowfoam is an annual herb with weak, somewhat fleshy, decumbent stems up to 30 centimeters (11.8 inches) long. The seedlings are unusual among *Limnanthes* species in that they have entire leaves. Leaves of mature plants are up to 10 centimeters (3.9 inches) long and have 3 to 5 leaflets that are narrow and unlobed with rounded tips. The leaves are borne on long petioles; petiole length, like stem length, appears to be promoted by submergence. Sebastopol meadowfoam has fragrant, white flowers that are borne in the leaf axils during April and May. The flowers are bell-shaped or dish-shaped, with petals 12 to 18 millimeters (0.47 to 0.71 inch) long. The sepals are shorter than the petals. The petals turn outward as the nutlets mature. The nutlets are dark brown, 3 to 4 millimeters (0.12 to 0.16 inch) long, and covered with knobby pinkish tubercles (Patterson *et al.* 1994).

Historically, Sebastopol meadowfoam was known from 40 occurrences in Sonoma County and 1 occurrence (occurrence #39) in Napa County, at the Napa River Ecological Reserve. In Sonoma County, all but two occurrences were found in the central and southern portions of the Santa Rosa Plain. Occurrence #20 occurred at Atascadero Creek Marsh west of Sebastopol, and the second (#40) occurred in the vicinity of Knights Valley northeast of Windsor (California Natural Diversity Database (CNDDDB) 2001).

The current condition of numerous Sebastopol meadowfoam occurrences is unclear, because many have not been visited in over 5 years. The southern cluster of occurrences extends 5 kilometers (3 miles) from Stoney Point Road west to the Laguna de Santa Rosa, and is bounded by Occidental Road to the north and Cotati to the south. The central cluster stretches 1.5 miles on either side of Fulton Road extending northwards from Occidental Road to River Road. Patterson *et al.* (1994) estimated that the Santa Rosa Plain occurrences represent only 10 hydrologically separate populations of Sebastopol meadowfoam. At least one occurrence (#21) has been extirpated from the Santa Rosa Plain (CNDDDB 2002). Recent field surveys found that all three occurrences outside of the Santa Rosa Plain have probably been extirpated (CNDDDB 2002).

Sebastopol meadowfoam is an annual plant. The seeds germinate after the first significant rains in fall, although late initiation of rains may delay seed germination. Sebastopol meadowfoam plants grow slowly underwater during the winter, and growth rates increase as the pools dry. Repeated drying and filling of pools in the spring favors development of large plants with many branches and long stems. Sebastopol meadowfoam begins flowering as the pools dry, typically in March or April. The largest plants can produce 20 or more flowers. Flowering may continue as late as mid-June, although in most years the plants have set seed and died back by then (Patterson *et al.* 1994). Each plant can produce up to 100 nutlets (Patterson 1994).

Nutlets of Sebastopol meadowfoam likely remain dormant in the soil, as they do for other species of *Limnanthes* (Patterson 1994). One case presents strong circumstantial evidence for persistent, long-lived seed banks in this species. In the late-1980's and early 1990's, a site in Cotati remote from other Sebastopol meadowfoam colonies was surveyed for several years by independent qualified botanists. None of these botanists identified flowering populations of Sebastopol meadowfoam on the project site. Conditions of the pools on the site were highly degraded by wallowing hogs (*Sus scrofa*) and subsequent eutrophication of the pools. Following several years of negative surveys 12 plants of Sebastopol meadowfoam emerged simultaneously in one pool in the first year following removal of hogs. The population expanded rapidly to 60 plants the next year and was larger in subsequent years (Geoff Monk, personal communication), all limited to one pool. Long-distance dispersal is an improbable explanation for the simultaneous emergence of multiple plants at one location, so seed banks are implicated in this case as well. This example also indicates that lack of Sebastopol meadowfoam during periods of adverse conditions (drought, heavy disturbance, etc.) does not necessarily mean the population is extirpated.

This species grows in Northern Basalt Flow and Northern Hardpan vernal pools (Sawyer and Keeler-Wolf 1995), wet swales and meadows, on the banks of streams, and in artificial habitats such as ditches (Wainwright 1984; CNDDDB 2002). The surrounding plant communities range from oak savanna, grassland, and marsh in Sonoma County to riparian woodland in Napa County (CNDDDB 2002). Sebastopol meadowfoam grows in both shallow and deep areas, but is most frequent in pools 25 to 51 centimeters (10 to 20 inches) deep (Patterson *et al.* 1994). The species is most abundant in the margin habitat at the edge of vernal pools or swales (Pavlik *et al.* 2000, 2001). Most confirmed occurrences of Sebastopol meadowfoam on the Santa Rosa Plain grow

on Wright loam or Clear Lake clay soils (Patterson *et al.* 1994, CNDDDB 2002). A few occurrences are on other soil types, including Pajaro clay loam, Cotati fine sandy loam, Haire clay loam (Patterson *et al.* 1994) and Blucher fine sandy loam (Wainwright 1984).

Like Burke's goldfields and Sonoma sunshine, Sebastopol meadowfoam has been and continues to be threatened by habitat loss, habitat degradation, and small population size. Causes of habitat loss include agricultural conversion, urbanization, and road maintenance. Habitat degradation is caused by excessive grazing by livestock, alterations in hydrology, and competition from non-native species (in some cases, exacerbated by removal of grazing), off-highway vehicle use, and dumping (U.S. Fish and Wildlife Service 1991, Patterson *et al.* 1994, CH2M Hill 1995, CNDDDB 2002).

### Recovery Actions

A conservation strategy titled "Santa Rosa Plain Conservation Strategy" has been developed and finalized (Santa Rosa Plain Conservation Strategy, December 2005) by a team of representatives from the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, California Department of Fish and Game, Sonoma County and local Cities, North Coast Regional Water Quality Control Board, local governmental agencies, the Laguna de Santa Rosa Foundation, environmental community, and the private landowner community (Conservation Team). The Santa Rosa Plain Conservation Strategy provides strategies to conserve and enhance enough habitat for the tiger salamander in Sonoma County and federally and state listed endangered plants including the Sonoma sunshine (*Blechnosperma bakeri*), Burke's goldfields (*Lasthenia burkei*), Sebastopol meadowfoam (*Limnanthes vinculans*), and many-flowered navarretia (*Navarretia leucocephala* ssp. *plieantha*) to provide for long-term conservation and assist in the recovery of these species, while considering the need for development consistent with the general plans for the local jurisdictions. The conservation strategy may be downloaded at [http://www.fws.gov/sacramento/es/santa\\_rosa\\_conservation.html](http://www.fws.gov/sacramento/es/santa_rosa_conservation.html).

The County of Sonoma, the Cities of Santa Rosa, Cotati, Rohnert Park, the Town of Windsor, Service, and CDFG have commenced a process to develop a plan for implementing the Conservation Strategy. An implementation committee has been formed that is comprised of elected and staff representatives of the local jurisdictions, staff representatives of Service and CDFG, and representatives of the agricultural, development, and environmental communities. The implementation plan is expected to provide a mechanism for applying the Conservation Strategy to cover public and private projects, agricultural activities, and residential and commercial development. The implementation planning process is proposed to be complete and in place within approximately two years, after which the local agencies and participating State and Federal agencies will take action regarding implementation of the Conservation Strategy.

As of November 4, 2005, there were approximately 597 acres of *existing* preserves, compensation sites and open space that support tiger salamander habitat in Sonoma County. There were also approximately 462 acres of *pending* mitigation banks, conservation banks, and

compensation sites anticipated to be protected in perpetuity to offset adverse effects to the tiger salamander, Sonoma sunshine, Sebastopol meadowfoam, and Burke's goldfields.

## **Environmental Baseline**

### California Tiger Salamander

*Cherry Ranch Project Site.* The 6.63 acre proposed project site supports 5.49 acres of tiger salamander and 0.4 acre potential Sebastopol meadowfoam, Sonoma sunshine and Burke's goldfields habitat. The 5.49 acres includes breeding habitat as well as upland, foraging, and dispersal habitat. There is a series of three deeper pools that support tiger salamander breeding within an area of 0.40 acre of seasonal wetlands. Approximately 1.14 acres of the 6.63 acre site supports a parking lot and buildings. The site is part of a series of parcels that remain undeveloped in the vicinity of other tiger salamander breeding pools and upland habitat. Recent development has eliminated much of the land north of the project site that served as upland habitat and provided additional breeding ponds for the tiger salamander. There is remaining undeveloped land to the east and south of the project site that also supports tiger salamander breeding and upland habitat.

*Christina Preserve.* The 35.20 acre Christina Preserve supports a mosaic of habitats, including vernal pools, seasonal wetlands and tiger salamander breeding and upland habitat. Tiger salamander larvae have been observed in vernal pools that naturally occur at the site. The Preserve is adjacent to the proposed Hale Mitigation Bank and the South West Santa Rosa Vernal Pool Preservation Bank (Engel Bank) and is bounded by Todd Road on the southern boundary. Additionally, there is contiguous undeveloped land to the north and south of the Preserve and is within the Llano Conservation Area as defined in the Santa Rosa Plain Conservation Strategy.

### Sebastopol Meadowfoam, Sonoma Sunshine and Burke's Goldfield

*Cherry Ranch Project Site.* The project site is located within the geographic range for the Sebastopol meadowfoam, Sonoma sunshine and Burke's goldfields. The project site supports potential vernal pool habitat for these three endangered plant species. Protocol level surveys were conducted at the project site in the spring of 2001 and 2002 and these species were not observed. The nearest recorded observation for Sebastopol meadowfoam is approximately 1,233 feet to the north, but has since been converted to residential housing. The nearest Sonoma sunshine reported observation is approximately 1.70 miles to the southwest and Burke's goldfield is approximately 2.7 miles to the northwest.

*Christina Preserve.* The Christina Preserve supports a vernal pool complex and swales with soils described as Wright loam, wet, 0-2% slopes, Zamora silty clay loam, 2-5% slopes, and Clear Lake clay, ponded, 0-2% slopes. The Preserve supports 6.48 acres of vernal pools and swales and Sebastopol meadowfoam occurs in approximately 5.0 acres of these wetlands. Between

50,000 to 100,000 Sebastopol meadowfoam plants have been estimated to occur in these vernal pools and swales.

## **Effects of the Proposed Action**

### Tiger Salamander

*Cherry Ranch Project Site.* The Cherry Ranch Project will likely result in the permanent loss of approximately 5.04 acres of upland and 0.45 acre of wetland features which supports dispersal, foraging, and breeding habitat. Graders, bulldozers and other heavy equipment are likely to kill, harm, and harass any tiger salamander inhabiting the 6.63-acre project site during the earth moving activities, infrastructure improvements, building construction, landscaping, and replacement of the natural earth surface of the graded area with hardscape. The project site will become unavailable to dispersing tiger salamanders in the vicinity. Individual tiger salamanders inhabiting the project site could be crushed by construction activities that collapse their burrows or other suitable cover from environmental elements such as high air and surface temperatures. Individual tiger salamanders disturbed by construction activities onsite could attempt overland movements in an attempt to find alternative upland habitat. These individuals could be harassed, injured and killed by pedestrians, vehicles, and urban adapted predators during overland movements at the project site, or during attempts to find more suitable habitats on adjacent lands.

Construction related activities are likely to cause disruption of surface movement, disruption or complete loss of reproduction, harassment from increased human activity, and permanent and temporary loss of shelter. Because these animals are nocturnal, if construction is performed at night, associated lighting likely would increase all of the above effects. Wise and Buchanan (2002) reviewed the adverse effects that may result from night time illumination on salamander species. Artificial lighting used during night time construction may increase predation of the tiger salamanders if it occurs during periods of fall, winter, or spring rains, because the amphibians will lose the cover of darkness for movement.

Tiger salamanders have been trapped and relocated from the project site to the Todd Road Preserve, Sonoma County since the fall of 2004 to minimize the potential adverse effects described above. This activity will continue until grading begins and will likely minimize the effects to those individuals captured, however it is unknown what percentage of the tiger salamander population that will be captured and relocated to an off-site location.

*Christina Preserve.* Enhancement activities including the demolishing and removing of existing structures and re-contouring the land to pre-existing conditions will require the use of some heavy equipment. These activities may kill, injure, and harass individual tiger salamanders within the work footprint (i.e. approximately 0.35 acre) that may be in refugia or dispersing from nearby breeding pools. These direct effects will likely be minimized by having a Service-approved biological monitor present on-site during enhancement activities, demarcating the footprint to prevent unnecessary straying vehicles to adjacent habitat, the work will be conducted

when the on-site tiger salamander breeding pools still retain water when the larvae are likely still within those pools and prior to metamorphs dispersing to nearby refugia.

Preservation of the Christina Preserve will likely benefit the tiger salamander by contributing to its overall recovery. The location of the Preserve is within the Llano Conservation Area as defined in the Santa Rosa Plain Conservation Strategy and provides an important link to existing preserves to the east and west of the Preserve. Implementation of the management plan for the Preserve will ensure that the biological values of the Preserve will be maintained to provide the best conditions for breeding, foraging, refugia, and dispersal of individual tiger salamanders.

Enhancement of the Christina Preserve will likely provide approximately 0.35 acre of quality tiger salamander habitat in the form of refugia, foraging, dispersal, and/or breeding habitat.

#### Sebastopol Meadowfoam, Sonoma Sunshine and Burke's Goldfield

Grading of the Cherry Ranch project site and filling of the approximately 0.4 acres of wetlands will eliminate potential habitat for Sebastopol meadowfoam, Sonoma sunshine and Burke's goldfield. Service protocol level surveys were conducted at the project site in the spring of 2001 and 2002 and these species were not observed at the project site. Although no Plants were observed, a seed bank may still be present in the soil and may be lost due to the destruction of the wetland habitat.

Preserving vernal pool complex habitat at the Preserve will forever conserve and protect an existing population of Sebastopol meadowfoam and maintain the function of the swales that connect to other vernal pools on the adjacent mitigation banks. The vernal pool complex will continue to allow the natural dispersal mechanism to function and plant seeds will flow between vernal pools through the connecting swales. Implementation of the management plan will have beneficial effects on the Sebastopol meadowfoam by managing non-native vegetation that may pose a threat of out-competing the native Sebastopol meadowfoam.

#### **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 considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Cumulative effects to the tiger salamander 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 remaining habitats.

Tiger salamanders probably are exposed to a variety of pesticides and other chemicals throughout their range. Tiger salamanders also could die from starvation by the loss of their prey base. Hydrocarbon and other contamination from oil production and road runoff; the application of numerous chemicals for roadside maintenance; urban/suburban landscape maintenance; and rodent and vector control programs may all have negative effects on tiger salamander 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 crustacea 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).

Threats to Burke's goldfields, Sonoma sunshine, and Sebastopol meadowfoam such as unauthorized fill of wetlands, urbanization, increases in non-native species, and expanded irrigation of pastures with recycled wastewater discharge, are likely to continue with concomitant adverse effects on these species resulting in additional habitat loss and degradation; increasingly isolated populations (exacerbating the disruption of gene flow patterns); and further reductions in the reproduction, numbers, and distribution of these species which will decrease their ability to respond to stochastic events.

Cumulative effects to Burke's goldfields, Sonoma sunshine, Sebastopol meadowfoam, and the tiger salamander could increase in the future if the current application of the Corp's regulatory authority under the Clean Water Act changes. On January 9, 2001, the United States Supreme Court issued an opinion regarding Solid Waste Agency of Northern Cook County, Petitioner v. United States Army Corps of Engineers *et al.* (SWANCC) which addressed the Corps regulatory authority over isolated wetlands. The Corps' San Francisco District generally has regulated wetlands on the Santa Rosa Plain which are hydrologically connected to the Laguna de Santa Rosa, a tributary of the Russian River. However, following the SWANCC decision, we understand that the Corps has determined that some seasonal wetlands on the Santa Rosa Plain are isolated from navigable waters. Reduced application of the Corps' regulatory authority, and subsequent lack of section 7 consultation with the Service, on such isolated wetlands could result in increased impacts to federally listed species in the Santa Rosa Plain from future State, Tribal, local or private actions.

As stated in the Conservation Strategy, urban and rural growth on the Santa Rosa Plain has taken place for over one hundred years, and for the past twenty years urban growth has encroached into areas inhabited by the tiger salamander and the listed plants. The loss of seasonal wetlands caused by development on the Santa Rosa Plain has led to declines in the populations of California tiger salamander and the listed plants. Voters in the cities of Cotati, Rohnert Park,

Santa Rosa, and Sebastopol, and the Town of Windsor have established urban growth boundaries for their communities. This is intended to accomplish the goal of city-centered growth, resulting in rural and agricultural land uses being maintained between the urbanized areas. Therefore, it can be reasonably expected that rural land uses will continue into the foreseeable future. There are also areas of publicly owned property and preserves located in the Santa Rosa Plain, which will further protect against development. Some of the areas within these urban growth boundaries, however, include lands inhabited by tiger salamanders and the listed plant species. Agricultural practices have also disturbed seasonal wetlands, tiger salamanders and listed plant habitat on the Santa Rosa Plain. Some agricultural practices, such as irrigated or grazed pasture, have protected habitat from intensive development.

The Conservation Strategy was designed to plan for future cumulative effects from federal and non-federal actions to the tiger salamander and listed plant habitat within the Santa Rosa Plain. The Conservation Strategy and the interim guidelines are intended to benefit the tiger salamander and the listed plants by providing a consistent approach for mitigation vital to habitat preservation and the long-term conservation of the species. They are also intended to provide more certainty and efficiency in the project review process. The Conservation Strategy and the interim guidelines provide guidance to focus mitigation efforts on preventing further habitat fragmentation and to establish, to the maximum extent possible, a viable preserve system that will contribute to the long-term conservation and recovery of these listed species.

The County of Sonoma, the Cities of Santa Rosa, Cotati, Rohnert Park, the Town of Windsor, Service, and CDFG have commenced a process to develop a plan for implementing the Conservation Strategy. An implementation committee has been formed that is comprised of elected and staff representatives of the local jurisdictions, staff representatives of Service and CDFG, and representatives of the agricultural, development, and environmental communities. The implementation plan is expected to provide a mechanism for applying the Conservation Strategy to cover public and private projects, agricultural activities, and residential and commercial development. The implementation planning process is proposed to be complete and in place within approximately two years, after which the local agencies and participating State and Federal agencies will take action regarding implementation of the Conservation Strategy.

## CONCLUSION

After reviewing the current status of the tiger salamander and the Sebastopol meadowfoam, Sonoma sunshine and Burke's goldfield, the environmental baseline for the actions areas, and the effects of the proposed action and the cumulative effects, it is the Service's biological opinion that the Cherry Ranch Project is not likely to jeopardize the continued existence of the tiger salamander, or these three listed plant species. This determination is based on the fact that the proposed project includes sufficient compensation measures to offset the adverse effects described in this biological opinion by preserving and managing the Christina Preserve and the three listed plants have not been observed at the Cherry Ranch project site during past floral

surveys. Critical habitat has not been designated for these species; therefore none will be adversely modified or destroyed.

### INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement.

The measures described below are non-discretionary, and must be implemented by the Corps so they become binding conditions of project authorization for the exemption under 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity that is covered by this incidental take statement. If the Corps (1) fails to adhere to the terms and conditions of the incidental take statement through enforceable terms, and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of 7(o)(2) may lapse.

Sections 7(b)(4) and 7(o)(2) of the Act do not apply to listed plant species. However, protection of listed plants is provided to the extent that the Act requires a Federal permit for removal or reduction to possession of endangered and threatened plants from areas under Federal jurisdiction, or for any act that would remove, cut dig up, or damage or destroy any such species on any other area in knowing violation of any regulation of any State or in the course of any violation of a State criminal trespass law.

#### **Amount or Extent of Take**

The Service anticipates that incidental take of the tiger salamander will be difficult to detect or quantify for the following reasons: the activity patterns of tiger salamanders makes the finding of a dead specimen unlikely, losses may be masked by annual fluctuations in numbers, and the species occurs in habitat that makes it difficult to detect. Due to the difficulty in quantifying the number of tiger salamanders that will be taken as a result of the proposed action, the Service is quantifying take incidental to the project as the number of acres of habitat that will be affected as a result of the action. Therefore, the Service estimates that the proposed action will result in the permanent loss of 5.49 acres and temporary loss of 0.35 acre of habitat suitable for tiger

salamander breeding, foraging, sheltering, and dispersal. Anticipated take is expected to be in the form of harm, harassment, injury, and mortality due to habitat loss and modification, construction related disturbance, increased predation, reduced fitness, and by ongoing operation and use of the Project and enhancement of 0.35 acre of habitat at the Christina Preserve.

### **Effect of the Take**

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the tiger salamander in Sonoma County. Critical habitat has not been designated for the tiger salamander in Sonoma County therefore none will be adversely modified or destroyed.

### **Reasonable and Prudent Measure**

The Service believes the following reasonable and prudent measure is necessary and appropriate to minimize the effect of take on the tiger salamander:

1. Minimize the potential for harm, harassment, or mortality of tiger salamander.

### **Term and Condition**

To be exempt from the prohibitions of section 9 of the Act, the Corps must comply with the following term and condition, which implement the reasonable and prudent measure described above. This term and condition is non-discretionary.

1. The conservation measures in the proposed project shall be implemented as described in the *Project Description* of this biological opinion

### **Reporting Requirements**

The Corps shall submit a post-construction compliance report to the Sacramento Fish and Wildlife Office within 60 calendar days of the completion of construction activity or within 60 days of any break in construction activity lasting more than 60 days. This report shall detail (i) dates that groundbreaking at the project started and the project was completed; (ii) pertinent information concerning the success of the project in meeting compensation and other conservation measures; (iii) an explanation of the failure to meet such measures, if any; (iv) known project effects on the tiger salamander, if any; (v) occurrences of incidental take of any of this species; and (vi) other pertinent information.

The Service must be notified within 24 hours of the finding of any injured or dead tiger salamanders, or any unanticipated damage to their habitats associated with the proposed project. Injured tiger salamanders shall be cared by a licensed veterinarian or other qualified person, such as the on-site biologist. Notification must include the date, time, and precise location of the specimen/incident, and any other pertinent information. The Service contact persons are Chris

Nagano, Deputy Assistant Field Supervisor (Endangered Species Program) at the Sacramento Fish and Wildlife Office at 916/414-6600 and Resident Agent-in-Charge Scott Heard of the Service's Law Enforcement Division at telephone 916/414-6660. Any dead or injured specimens should be deposited with the Resident Agent-in-Charge at 2800 Cottage Way, Room W-2928, Sacramento, California 95825.

### **CONSERVATION RECOMMENDATIONS**

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities that can be implemented to further the purposes of the Act, such as preservation of endangered species habitat, implementation of recovery actions, or development of information and data bases.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations. We make the following conservation recommendations:

1. Encourage or require the use of appropriate California native species in re-vegetation and habitat enhancement efforts associated with projects authorized by the Corps.
2. Facilitate educational programs geared toward the importance and conservation of seasonal wetlands.
3. Encourage seed banking in Center for Plant Conservation certified botanic gardens (provided the seed collection does not adversely affect the source populations).
3. Actively participate in developing the implementation plan for the Santa Rosa Plain Conservation Strategy.

### **REINITIATION - CLOSING STATEMENT**

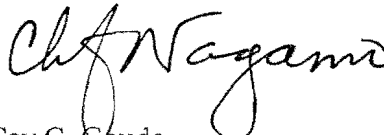
This concludes formal consultation on the action on the proposed Cherry Ranch project. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

Ms. Jane M. Hicks

31

If you have any questions on this biological opinion on the proposed Cherry Ranch in Santa Rosa, Sonoma County, California, please contact Vincent Griego or Ryan Olah of the Sacramento Fish and Wildlife Office at 916/414-6625.

Sincerely,

  
 Cay C. Goude  
Acting Field Supervisor

cc:

Carl Wilcox, Liam Davis, Scott Wilson, Tracy Love, CDFG Yountville, California  
Mike Monroe, U.S. Environmental Protection, San Francisco, California  
Andrew Jenson, Regional Water Quality Control Board, Santa Rosa, California  
City of Santa Rosa, Santa Rosa, California  
Harvey Rich, Greenbrae, California

### LITERATURE CITED

- Anderson, J. D. 1968. Comparison of the food habits of *Ambystoma macrodactylum sigillatum*, *Ambystoma macrodactylum croceum*, and *Ambystoma tigrinum californiense*. *Herpetologica* 24(4): 273-284.
- Anderson, P. R. 1968. The reproductive and developmental history of the California tiger salamander. Masters thesis, Department of Biology, Fresno State College, Fresno, California. 82pp.
- Barry, S. J. and H. B. Shaffer. 1994. The status of the California tiger salamander (*Ambystoma californiense*) at Lagunita: 50-year update. *Journal of Herpetology* 28(2): 159-164.
- Baskin, C.C. and J.M. Baskin. 1998. *Seeds: Ecology, Biogeography, and Evolution of Dormancy and Germination*. Academic Press, Ltd. London.
- California Native Plant Society (CNPS). 1977. California Native Plant Status Report: *Lasthenia burkei*. Sacramento, California
- California Natural Diversity Data Base (CNDDB). 1998. Natural Heritage Division. California Department of Fish and Game, Sacramento, California.
- . 2000. Natural Heritage Division. California Department of Fish and Game, Sacramento, California.
- . 2001. Natural Heritage Division. California Department of Fish and Game, Sacramento, California.
- CH2M Hill. 1995. Phase 1 Final Report, Santa Rosa Plain Vernal Pool Ecosystem Preservation Plan. Prepared for Sonoma County Vernal Pool Task Force.
- Cohen, D. 1966. Optimizing reproduction in a randomly varying environment. *Journal of Theoretical Biology* 12: 119-129.
- Cohen, D. 1967. Optimizing reproduction in a randomly varying environment when a correlation may exist between the conditions at the time a choice has to be made and the subsequent outcome. *Journal of Theoretical Biology* 16:1-14.
- Crawford, D.J. and R. Ornduff. 1989. Enzyme electrophoresis and evolutionary relationships among three species of *Lasthenia* (Asteraceae: Heliantheae). *American Journal of Botany* 76: 289-296.

- Feaver, P. E. 1971. Breeding pool selection and larval mortality of three California amphibians: *Ambystoma tigrinum californiense* Gray, *Hyla regilla* Baird and Girard and *Scaphiopus hammondi hammondi* Girard. Master's thesis, Department of Biology, Fresno State College, Fresno, California. 58pp.
- Fitzpatrick, B. M. and H. B. Shaffer. 2004. Environmental-dependent admixture dynamics in a tiger salamander hybrid zone. *Evolution* 58(6): 1282-1293.
- Given, D.R. 1994. Principles and Practice of Plant Conservation. Timber Press, Portland, Oregon.
- Hickman, J.C. 1993. The Jepson Manual: Higher Plants of California. University of California Press, Berkeley.
- Jennings, M.R. and M.P. Hayes. 1994. California tiger salamander. Pages 12-16 in Amphibian and reptile species of special concern in California. California Dept. of Fish and Game, Sacramento, California.
- Lawrenz, R.W. 1984. The response of invertebrates in temporary vernal wetlands to Altosid® SR-10 as used in mosquito abatement programs. *Journal of the Minnesota Academy of Science* 50:31-34.
- Loredo, I., and D. Van Vuren. 1996. Reproductive ecology of a population of the California tiger salamander. *Copeia* 1996(4):895-901.
- Loredo, I., D. Van Vuren and M. L. Morrison. 1996. Habitat use and migration behavior of the California tiger salamander. *Journal of Herpetology* 30(2): 282-285.
- Marin/Sonoma Mosquito and Vector Control District. 2002. 3 pp. printed from <http://www.msmosquito.com/mosconrt.html>
- McCarten, N.F. 1985. A survey of *Navarretia pauciflora* and *Navarretia plieantha* (Polemoniaceae): Two rare endemic plant species from the vernal pools of the California North Coast Ranges. Unpublished report. Endangered Plant Program. California Department of Fish and Game, Sacramento, California.
- Morey, S. R. 1998. Pool duration influences age and body mass at metamorphosis in the western spadefoot toad: implications for vernal pool conservation. Pages 86-91 in Witham, C.W., E.T. Bauder, D. Belk, W.R. Ferren Jr., and R. Ornduff (eds). Ecology, Conservation, and Management of Vernal Pool Ecosystems - Proceedings from a 1996 Conference. California Native Plant Society. Sacramento, California.

- Ornduff, Robert. A biosystematic survey of the Goldfield genus *Lasthenia* (Compositae: Helenieae). University of California publications in botany 40:1-92.
- Parker, V.T., Simpson, and M.A. Leck. 1989. Pattern and process in the dynamics of seed banks. Pages 367-384 in M.A. Leck, V.T. Parker and R.L. Simpson (eds.). Ecology of Soil Seed Banks. Academic Press, New York, New York.
- Pavlik, B.M., A. Fine, J. Archbold, and T. O'Hanley. 2000. Development of the Santa Rosa Vernal Reserve System. II Installation of a long-term restoration experiment and description of baseline vegetation. Department of Biology, Mills College, Oakland, California. 102 pp.
- Pavlik, B.M., J. Randall, A. Smith, and N. Metz. 2001. Development of the Santa Rosa Reserve System. III. First-year response of margin and upland habitats to mowing and phytomass removal. Department of Biology, Mills College, Oakland, California. 172 pp.
- Pechmann, J. H. K., D. E. Scott, J. W. Gibbons, and R. D. Semlitsch. 1989. Influence of wetland hydroperiod on diversity and abundance of metamorphosing juvenile amphibians. Wetlands Ecology and Management 1(1):3-11.
- Petranka, J.W. 1998. Salamanders of the United States and Canada. Smithsonian Institution Press. Washington, D.C.
- Riley, S.P.D., H.B. Shaffer, S.R. Voss, and B.M. Fitzpatrick. 2003. Hybridization between a rare, native tiger salamander (*Ambystoma californiense*) and its introduced congener. Biological Applications 13(5): 1263-1275.
- Sawyer, J.O., and T. Keeler-Wolf. 1995. A manual of California vegetation. California Native Plant Society, Sacramento, California. 471 pp.
- Patterson, C.A., B. Guggolz, and M. Waaland. 1994. Seasonal Wetland Baseline Report for the Santa Rosa Plain, Sonoma County. Santa Rosa, California
- Rice, K.J. 1989. Impacts of seed banks on grassland community structure and population dynamics. Pages 211-230 in M.A. Leck, V.T. Parker and R.L. Simpson (eds.). Ecology of Soil Seed Banks. Academic Press, New York, New York.
- Scott, D. E. 1994. The effect of larval density on adult demographic traits in *Ambystoma opacum*. Ecology 75:1383-1396.

- Semlitsch, R. D., D. E. Scott, and J. H. K. Pechmann. 1988. Time and size at metamorphosis related to adult fitness in *Ambystoma talpoideum*. *Ecology* 69: 184-192.
- Shaffer, H.B., R.N. Fisher, and S.E. Stanley. 1993. Status report: The California tiger salamander (*Ambystoma californiense*). Final report for the California Department of Fish and Game. Department of Evolutionary Ecology, University of California, Davis, California. 33 pp.
- Shaffer, H.B., G. B. Pauly, J.C. Oliver, and P.C. Trenham. 2004. The molecular phylogenetics of endangerment: cryptic variation and historic phylogeography of the California tiger salamander, *Ambystoma californiense*. *Molecular Ecology* 13: 3033-3049.
- Skinner, M.W., and B.M. Pavlik. 1994. California Native Plant Society inventory of rare and endangered plants of California. 5th edition. Special Publication No. 1. California Native Plant Society. Sacramento, California.
- Stebbins, R. C. 1985. A field guide to western reptiles and amphibians. Houghton Mifflin Co. Boston, Massachusetts.
- Stebbins, R. C. 1989. Declaration of R. C. Stebbins in support of petition of writ of mandate. Sierra Club and Richard Pontuis v. Gilroy City Council, Shappell Industries *et al.* Santa Clara County Superior Court. March 16, 1989. 11 pp. plus exhibits.
- Storer, T.I. 1925. A synopsis of the amphibia of California. University of California Press, Publications in Zoology 27.
- Templeton, A.R. and D.A. Levin. 1979. Evolutionary consequences of seed pools. *American Naturalist* 114: 232-249.
- Trenham, P. 1998a. Radiotracking information. University of California, Davis, California.
- \_\_\_\_\_. 1998b. Demography, migration, and metapopulation structure of pond breeding salamanders. Ph.D. dissertation. University of California, Davis, California.
- Trenham, P.C., H.B. Shaffer, W.D. Koenig and M.R. Stromberg. 2000. Life history and demographic variation in the California tiger salamander (*Ambystoma californiense*). *Copeia* 2000(2): 365-377.
- Trenham, P. C., W. D. Koenig, and H. B. Shaffer. 2001. Spatially autocorrelated demography and interpond dispersal in the salamander *Ambystoma californiense*. *Ecology* 82: 3519-3530.

Trenham, P. 2001. Terrestrial habitat use by adult California tiger salamanders. *Journal of Herpetology* 35(2): 343-346.

Trenham, P.C. and H.B. Shaffer. 2005. Amphibians upland habitat use and its consequences for population viability. *Ecological Applications*, 15(4): 1158-1168.

Twitty, V. C. 1941. Data on the life history of *Ambystoma tigrinum californiense* Gray. *Copeia* 1941 (1):1-4.

U.S. Fish and Wildlife Service. 1991. Determination of endangered status for three plants: *Blechnosperma bakeri* (Sonoma sunshine or Baker's stickyseed), *Lasthenia burkei* (Burke's goldfields), and *Limnanthes vinculans* (Sebastopol meadowfoam). 56 **Federal Register** 67113. 10pp.

\_\_\_\_\_. 2004. Endangered and threatened wildlife and plants; determination of threatened status for the California tiger salamander; and special rule exemption for existing routine ranching activities; final rule. **Federal Register** 69: 47212-47248.

Van Hattem, M. G. 2004. Underground ecology and natural history of the California tiger salamander. Master of Science thesis. San Jose State University, San Jose, California.

Wilbur, H. M. and J. P. Collins. 1973. Ecological aspects of amphibian metamorphosis. *Science* (n.s.) 182(4119): 1305-1314.

#### Personal Communications

Cook, D. Sonoma County Water Agency. Santa Rosa, California

Haley, N. U.S. Army Corps of Engineers. Sacramento, California

Wilcox, C. 1998. California Department of Fish and Game, Yountville, California

Warenycia, D. 2002. California Department of Fish and Game.

#### In Litt. Citations

Chan, R. 1998. University of California, Berkeley. Berkeley, California.

Sam Sweet, University of California, Santa Barbara, 31 August 1998. Vineyard development posing an imminent threat to *Ambystoma californiense*. Letter.

Wilcox, C. 2000. California Department of Fish and Game. Yountville, California

**Attachment C**  
**Historic Aerial Photographs of the Cherry Ranch Project Site**

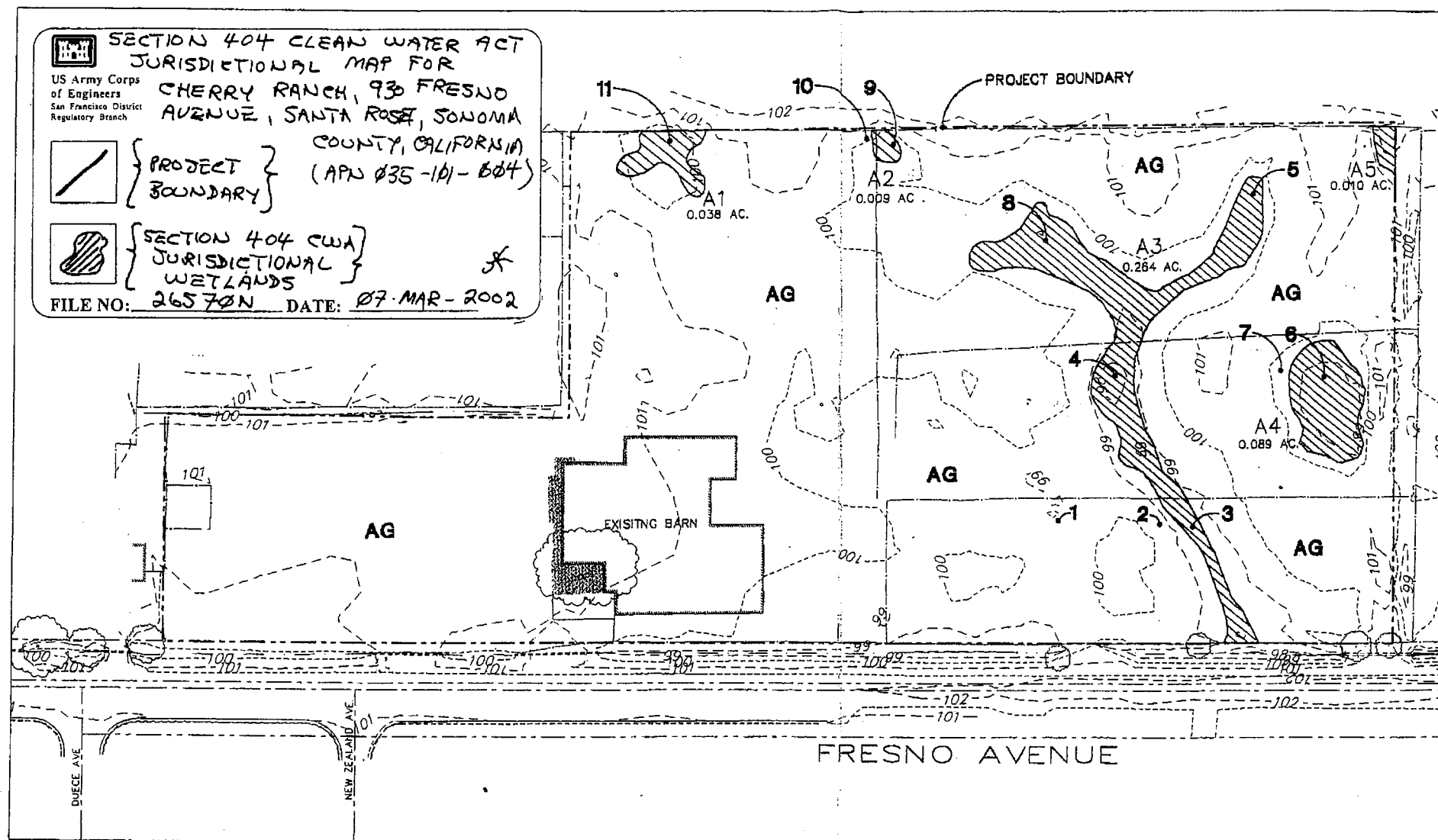


2005 Aerial Photograph of the project site taken prior to site grading  
(Note deep inundated wetlands on the project site consistent with 2002 Corps-verified jurisdictional wetland map and the revised wetland delineation map).

Attachment C  
Historic Aerial Photographs of the Cherry Ranch Project Site



2018 Aerial Photograph of the project site  
(Note shallow depressions caused by construction-related activities)

**LEGEND**

- Jurisdictional Wetlands**
- Seasonal Wetlands
- Other Plant Communities**
- AG** Annual Grasslands
- Wetland Sample Point**
- Total Seasonal Wetlands**  
0.4 ac.

**JURISDICTIONAL WETLAND MAP**

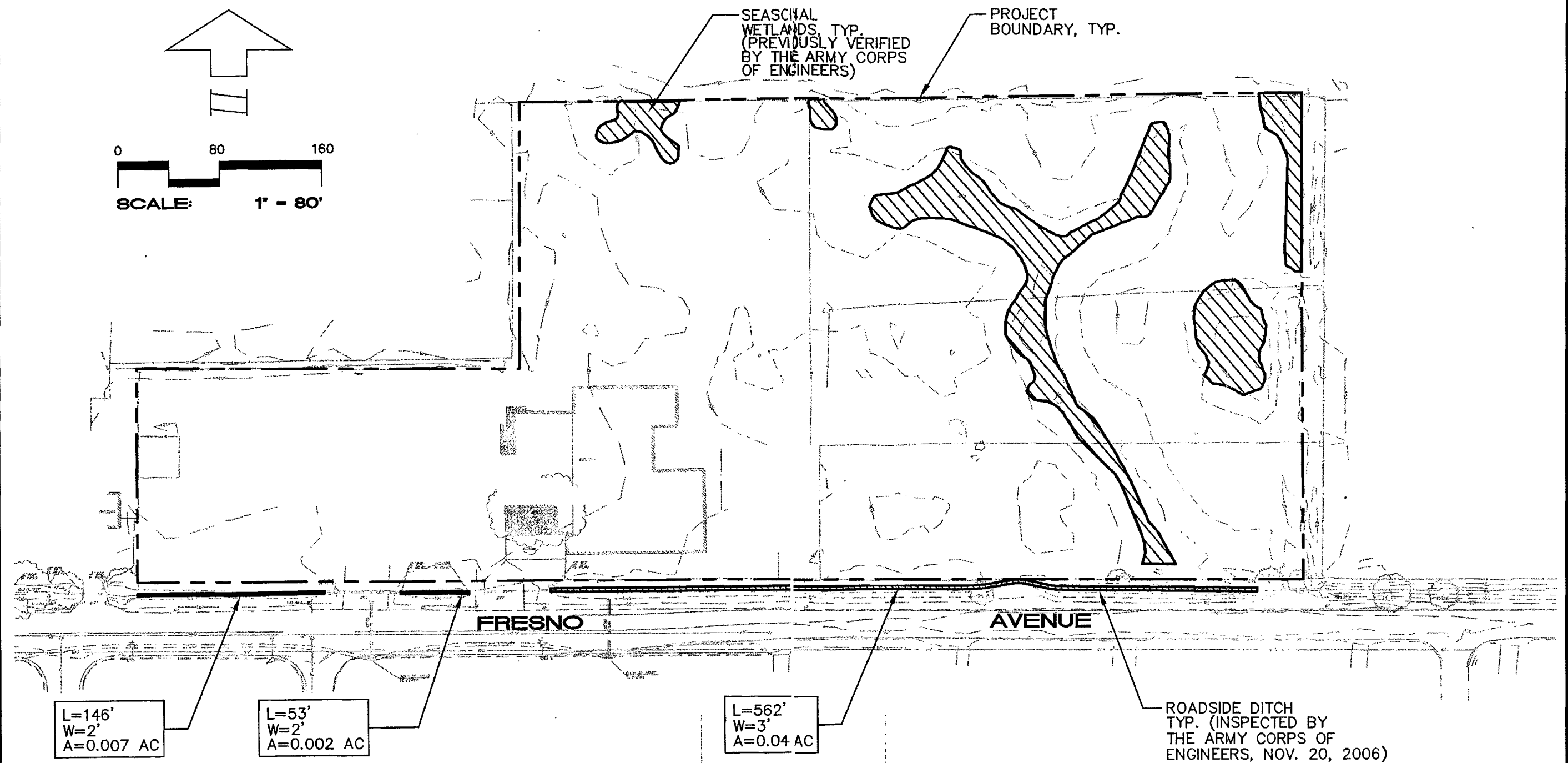
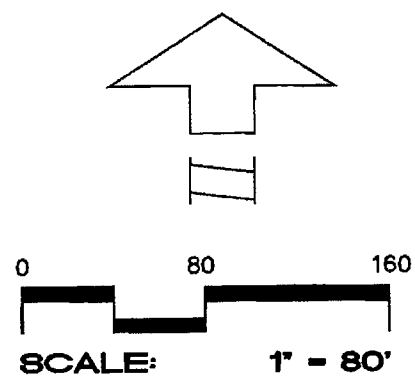
**CHERRY RANCH**  
**Santa Rosa, CA**

AUGUST 1, 2001

0 80'

SCALE: 1"=80'





REVISED  
WETLANDS DELINEATION  
**CHERRY RANCH**

930 FRESNO AVENUE  
SANTA ROSA CALIFORNIA

Control Points

Data Point

Linear Wetland (754 Lin. Ft., 2,003 Sq. Ft., 0.046 Acre)

RCP

Limits of Delineation (5.2 Acres)

Property Boundary



# **REPORT ON CALIFORNIA TIGER SALAMANDER (*AMBYSTOMA CALIFORNIENSE*) SURVEYS, CHERRY RANCH PROPERTY, SONOMA COUNTY**

Prepared for Golden Bear Biostudies  
536 B Street  
Santa Rosa, CA 95401

by

Michael Fawcett, Ph.D., Ecologist  
P.O. Box 274  
Bodega, CA 94922  
Tel: 707/876-3450

13 June 2002

## **INTRODUCTION**

The Department of Fish and Game (DFG) has an established survey protocol for California tiger salamander (DFG 1997). The protocol includes analysis of the site location with respect to the known range and nearest known breeding locations of the salamander, an assessment of aquatic and terrestrial habitat on the site, a series of five standard nocturnal surveys conducted on rainy nights during the months of November through March when adults may be active above ground, and two standard dipnet surveys of potential breeding areas for salamander larvae during the period from March 15 to May 15. In this report I present the results of nocturnal and dipnet surveys conducted from November 2001 through March 2002 on the Cherry Ranch property located at 930 Fresno Avenue in the southwest Santa Rosa area in Sonoma County (Fig.1).

## **SITE ASSESSMENT**

The property is within the historic range of the California tiger salamander, as defined in the DFG Survey Protocol. The historic range includes Sonoma County. A CNDDDB report for the USGS Sebastopol 7.5 min. quadrangle (report dated August 2001), as well as a recently compiled list of all known sightings of CTS in Sonoma County (Cook 2001) show the nearest known breeding location to be a vernal pool or pools on the northwest edge of the abandoned Santa Rosa Air Center (Fig. 2), which is adjacent to the Cherry Ranch property. The light-colored area labeled Old Naval Air Station in fig. 2 is the concrete of the old runways; the dark area north of the runways is former grazing land with vernal pools, including a large one adjacent to the square white barn in the upper center of the photograph; this pool is less than 300 ft. north of the northernmost vernal pool on the Cherry Ranch (labeled SW in Fig. 2). Other sightings of adult CTS and known breeding locations for CTS are within a mile north, west, and south of the project site.

The habitat assessment was conducted on 28 November 2001, from 1630-1730 hrs., during heavy rain that began at about 1530 hrs. The project site is a 6.4 acre parcel that was last used as livestock auction yard. It is presently covered with unmowed, non-native, annual grassland, with several vernal pool/seasonal wetland areas (locations shown in Fig. 3). Plant species associated with the wetlands are described in Waaland (2002). Representative photographs of habitat at the site are shown as Figs. 4-7 (photographs by Marco Waaland, March 2001). Rodent burrows (Botta's pocket gopher, California vole, and broad-footed mole) were moderately abundant throughout the site, with the greatest density of active burrows on slightly elevated areas around the vernal pools and along the edges of the swale shown in Fig. 3. Piles of wood and other debris were scattered about near the corrals and old barn, which can be seen in the background in Fig. 6. The vernal pools were partially filled on 28 November, with depths up to about 12 inches. By 13 December 2002, the pools were all filled, up to about 16 in. depth, and burrows in low-lying areas were flooded (unusually heavy rainfall occurred in November and December 2001).

### NOCTURNAL SURVEYS

Nocturnal surveys were conducted during rainstorms on three nights in November-December 2001, and on 7 February 2002 (following a dry period from 5 Jan.-7 Feb. 02). Conditions during the nocturnal surveys are provided in Table 1.

**Table 1. Conditions during nocturnal surveys at Cherry Ranch**

| Date          | Time                                | Air Temp.<br>° C | Wind<br>Speed and<br>Direction<br>(m.p.h.) | Remarks                                                                                    |
|---------------|-------------------------------------|------------------|--------------------------------------------|--------------------------------------------------------------------------------------------|
| 28 Nov.<br>01 | 1730-<br>1815,<br>1845-1930<br>hrs. | 11.0-10.0        | 5-10 SW                                    | Heavy rain--2-3 inches reported for the area overnight. Looked in about 75 burrows.        |
| 2 Dec. 01     | 2030-2200<br>hrs.                   | 8.0              | 5-15 SW                                    | Rained hard in afternoon and early evening, intermittent during survey.                    |
| 13 Dec. 01    | 2100-2230<br>hrs.                   | 9.0-8.0          | 5-10 SW<br>gusts                           | Heavy rain, most burrows flooded                                                           |
| 7 Feb. 02     | 1830-2000<br>hrs.                   | 12.8-11.2        | 0-5 SW                                     | Light rain all day, heavy around sunset, then stopped at 1900 hrs. Assisted by Brad Welch. |

During each survey, I walked around the edges of all the pools, walked around the perimeter of the property, then did either transects or a zig-zag walk through the entire site, then went around the pools a second time. I used a headlamp and hand-held flashlights to examine burrows, look under boards and other objects, and inside the corral

and barn area. I probably examined 50 percent of the terrestrial habitat on each of the first three surveys, although visibility was hampered by dense live and dead vegetation. On the 7 Feb. 02 survey I was assisted by Brad Welch, and I estimate that we examined 80 percent or more of the ground surface, by walking in paired transects, 25-35 ft. between us.

During the 7 Feb. 02 survey, I observed about twenty California tiger salamander (CTS) larvae foraging or resting on the bottom in the shallow, nearshore areas of the pool designated A4 (Figs. 3 & 5). The larvae appeared to be about 1-1.5 inches long. Invertebrates were attracted to the flashlight, and I could see fairy shrimp, notonectids, dytiscid larvae, chironomid and mosquito larvae, amphipods, copepods, and ostracods. On the following day (8 Feb.), Bill Cox (DFG) met me at the site and we looked more closely at each of the vernal pools, and did some light sampling with dipnets. We each made one sweep in Pool A4, capturing about a dozen CTS larvae between us. We also looked briefly in each of the other main pools, and found one CTS larva in Pool A1. We noted abundant CTS food, especially amphipods, fairy shrimp, and insects, and a few treefrog tadpoles, but no clam shrimp. Pool A4 appeared to offer the best habitat for CTS rearing, in that it had a variety of invertebrate prey and a diverse mixture of emergent plants and algae, with some open-water areas--the other pools, although similar in depth (up to about 14 in.), seemed to be clogged with rotting grass and algae and had fewer invertebrates.

Aside from CTS larvae, the only wildlife observed during the nocturnal surveys were Pacific treefrogs (which were concentrated in the pool designated A4 in Figs. 3 & 5, but were also heard calling from scattered locations throughout the property), a southern alligator lizard, mallards, and common snipe.

### AQUATIC SURVEYS

Although the DFG protocol states that no further surveys should be conducted once CTS are found at a site, Bill Cox and I were both interested in knowing whether or not the pools at the project site would retain water long enough for the larvae to transform to the adult phase. I conducted one dipnet survey of the pools at the project site on 15 March 2002. At that time, I found CTS larvae in the same two pools as before, but also found them in relatively high density in a third pool, A3 (a portion of the y-shaped swale in Fig. 3, also shown in Fig. 6). All the pools were less congested with algae than they were in early February. The larvae throughout the site were between 2 and 2.5 in. in length. I also caught a mosquitofish in Pool A3. I visited the site once more on 3 April, without any sampling, and noted that all three pools that had CTS larvae on 15 March appeared to have sufficient water left for the larvae to reach metamorphosis.

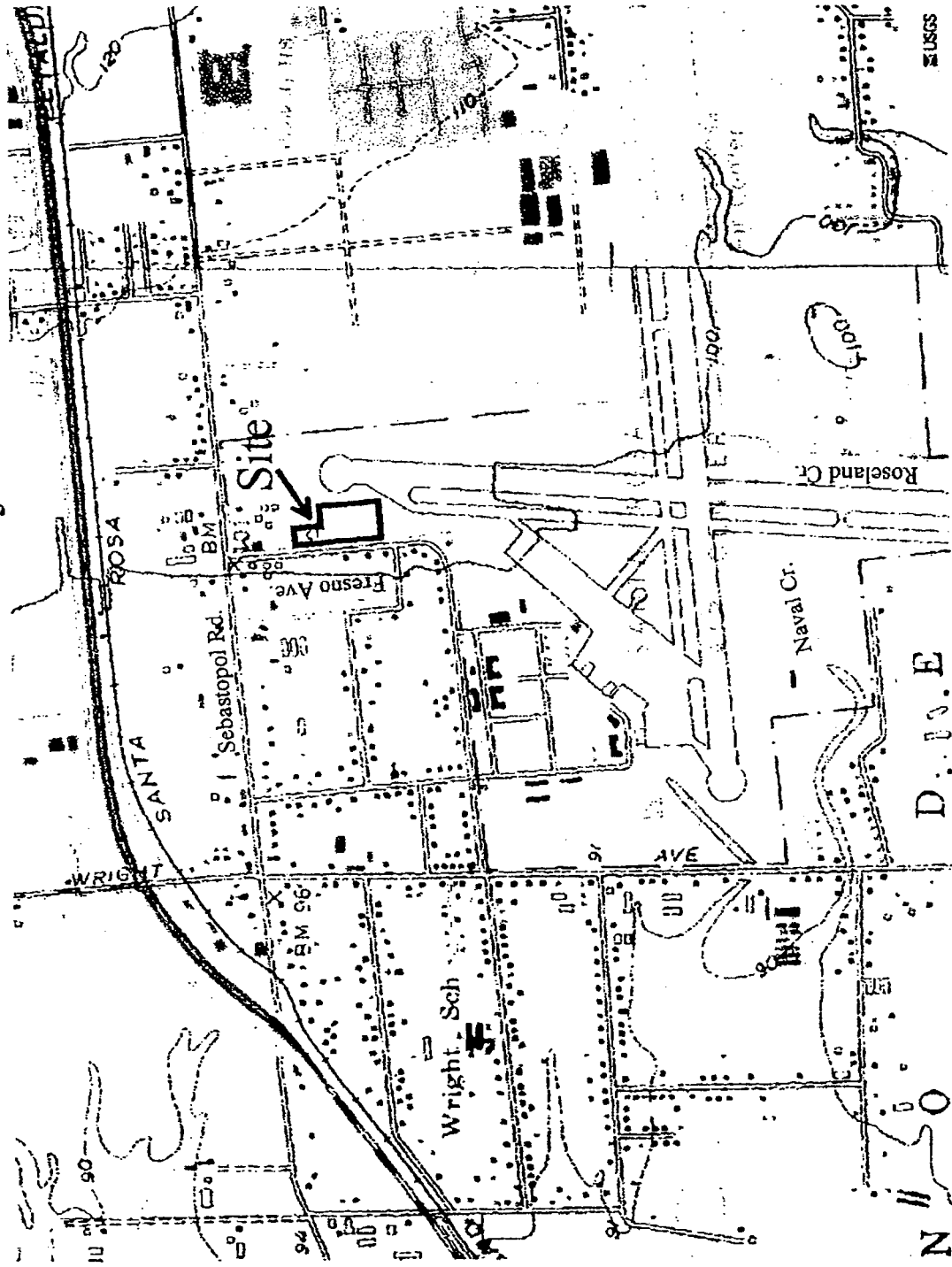
### REFERENCES

- Cook, D. 2001. California tiger salamander observations in Sonoma County.  
Unpublished list including map of sighting locations.

California Department of Fish and Game. 1997. Survey protocol for California tiger salamander (*Ambystoma californiense*). Inland Fisheries Informational Leaflet No. 44.

Waaland, M.E. 2002. Biological Assessment: Cherry Ranch, 930 Fresno Ave., Santa Rosa. Report prepared for Harvey O. Rich, Cherry Ranch, LLC.

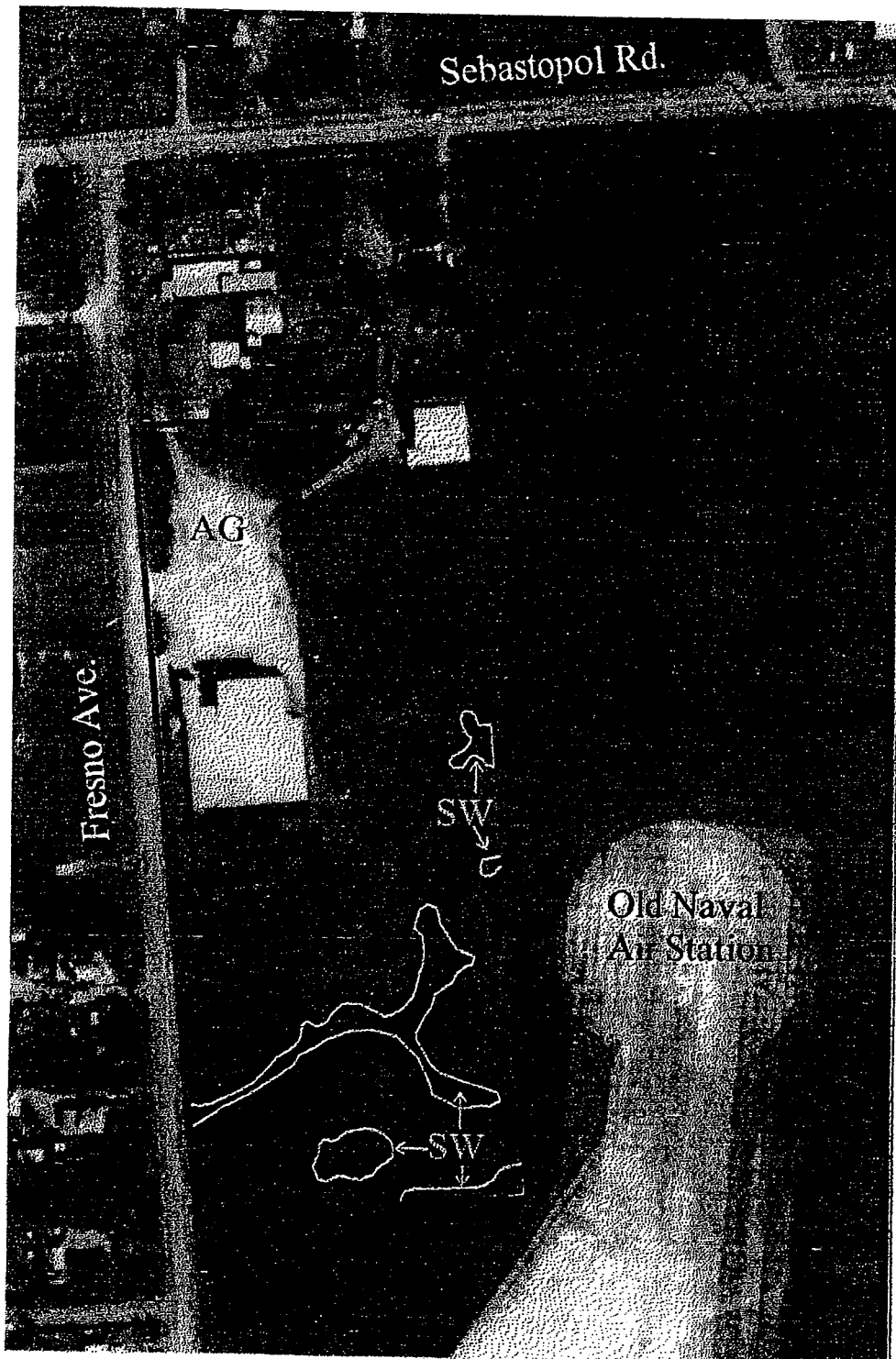
Figure 1. USGS Topographic Map, Sebastopol Quadrangle  
Fresno Ave. Project



Golden Bear Biostudies, 536 B St., Santa Rosa, CA 95401  
(707) 573-1770 gbb@msn.com www.wetlandservices.com

**Figure 2. Plant Communities at the Fresno Ave. Site**

AG = Annual Grassland SW = Seasonal Wetland

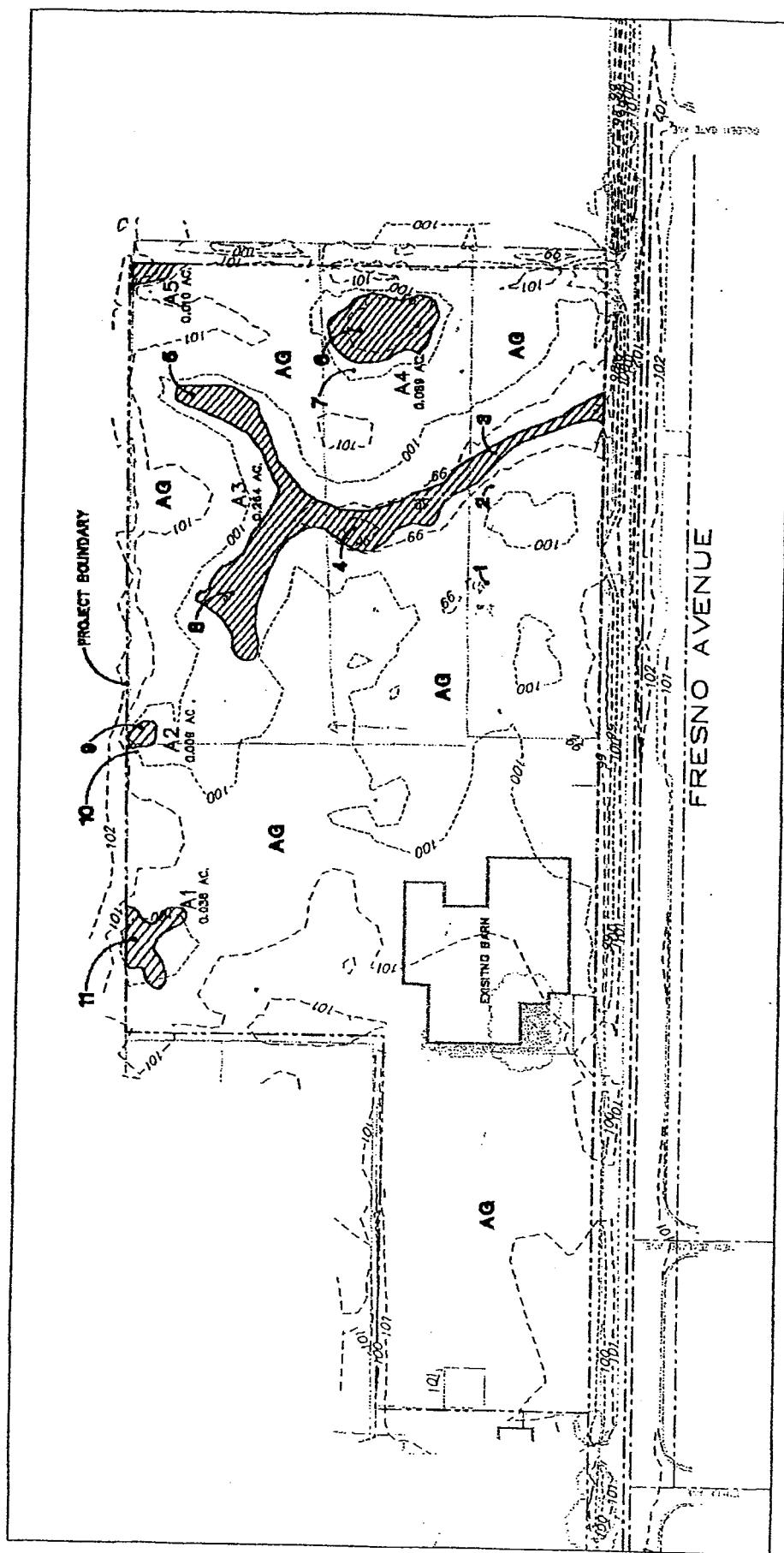


200 ft.

Source: City of Santa Rosa Aerial Blueline  
Flight Index No. H-14, Photo Date: 2/25/87



Golden Bear Biostudies, 536 B St., Santa Rosa, CA 95401  
(707) 573-1770 gbb@msn.com www.wetlandservices.com



## LEGEND

### Functional Words

Seasonal Wetlands

Other Plant Communities

Annual Graduates

3- Wetland Sample Point

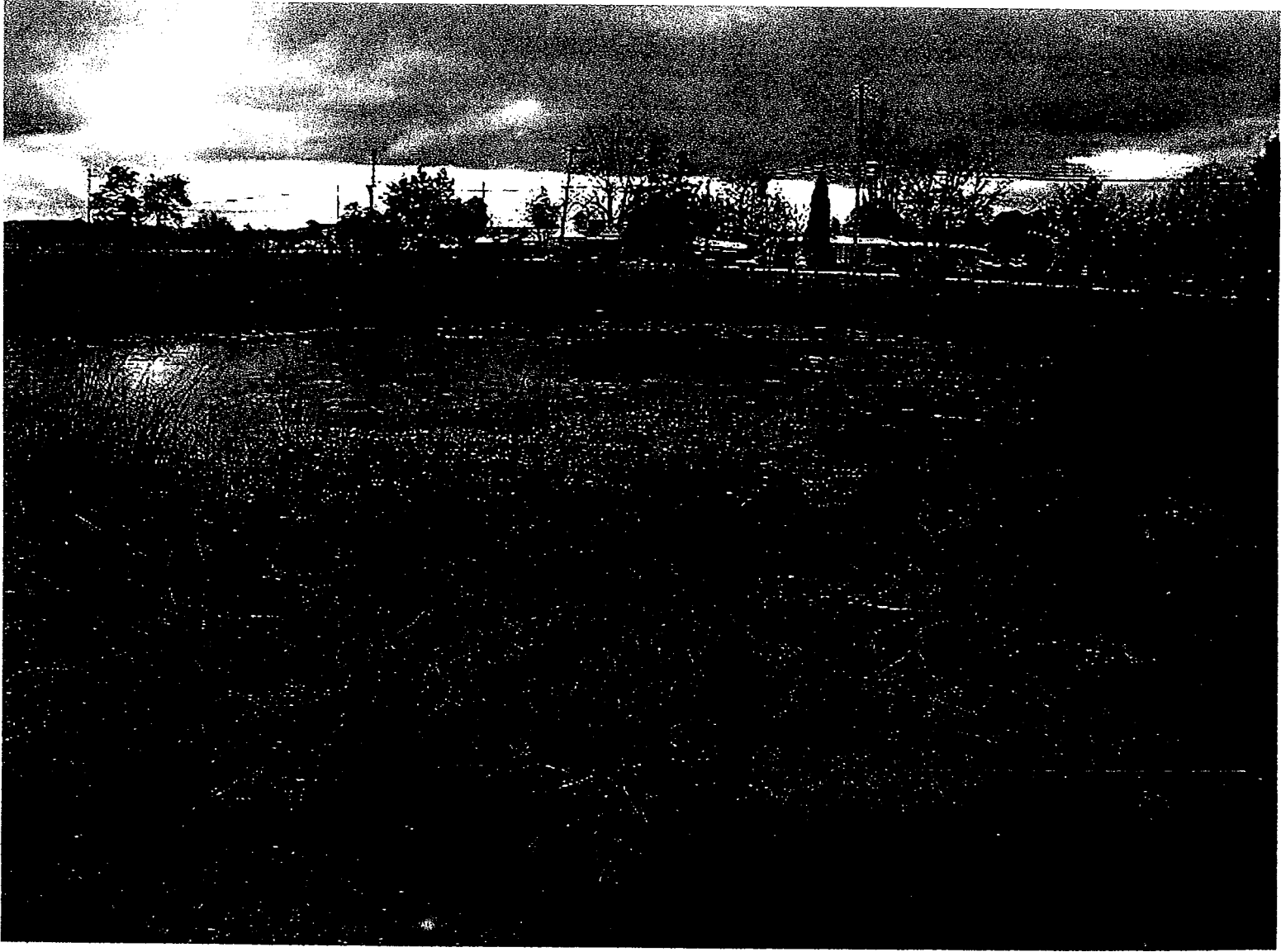
**Total Seasonal Wetlands**  
**0.4 ac**

AG



**GOLDEN BEAR  
BIOS STUDIES**  
4400 Western Boulevard  
3748 Street 2nd Floor  
Kendall Ave., CA  
Tel: (707) 572-1970  
Fax: (707) 572-1950





**Figure 5. Vernal pool A4 at Cherry Ranch, March 2001**



**Figure 4. Representative terrestrial habitat at Cherry Ranch, March 2001**



**Figure 6. Portion of vernal pool A3 at Cherry Ranch, March 2001**



**Figure 7. Vernal pool A1 at Cherry Ranch, March 2001**

# California Native Species Field Survey Form

Mail to:  
Natural Diversity Database  
California Department of Fish and Game  
1807 13<sup>th</sup> Street, Suite 202  
Sacramento, CA 95814

For Office Use Only

Source Code \_\_\_\_\_ Quad Code \_\_\_\_\_  
Elm Code \_\_\_\_\_ Occ. No. \_\_\_\_\_  
EO Index No. \_\_\_\_\_ Map Index No. \_\_\_\_\_

Date of Field Work: 02-07-02  
month (mm) date (dd) year (yyyy)

Scientific Name: Ambystoma californiense

Common Name: california tiger salamander

Species Found? ☒ yes ☐ no If not, why? \_\_\_\_\_  
Total No. Individuals \_\_\_\_\_ Subsequent Visit? ☒ yes ☐ no  
Is this an existing NDDDB occurrence? ☒ no ☐ unk. Yes, Occ. # \_\_\_\_\_  
Collection? If yes: \_\_\_\_\_  
Number \_\_\_\_\_ Museum / Herbarium \_\_\_\_\_

Reporter: Michael Fawcett  
Address: P.O. Box 274  
Bodega CA 94922  
Email Address: mhfawcett@aol.com  
Phone: (707) 876-3450

## Plant Information

Phenology: \_\_\_\_\_  
% vegetative \_\_\_\_\_ % flowering \_\_\_\_\_ % fruiting \_\_\_\_\_

## Animal Information

Age Structure: approx. 20 larvae  
# adults \_\_\_\_\_ # juveniles \_\_\_\_\_ # unknown \_\_\_\_\_  
☒ breeding ☐ wintering ☒ burrow site ☐ rookery ☐ nesting ☐ other

Location (please also attach or draw map on back)

site of old livestock auction yard on Fresno Ave., south of Sebastopol Rd., SW. Santa Rosa  
(Cherry Ranch)

County: Sonoma Landowner / Mgr.: TRI Development Co., LLC  
Quad Name: Sebastopol Elevation: 95 ft.  
T 7N R 8W 1/4 of \_\_\_\_\_ 1/4 of Section \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of Section \_\_\_\_\_  
UTM: Zone: \_\_\_\_\_ (10,11) Datum: \_\_\_\_\_ (NAD83, NAD27, WG584, other)  
Source: \_\_\_\_\_ (GPS, map & type, etc.) Point Accuracy: \_\_\_\_\_ Meters  
UTM Coordinates: most larvae in Pool A4; 1 larva found in Pool A1

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope) - pool

Formerly grazed field, several small, shallow, swale-type vernal pools present;  
CTS larvae observed by flashlight in one pool (during nocturnal survey  
for adults) with variety of emergent plants, dense & diverse invertebrates (including  
Other rare species? fairy shrimp, copepods, ostracods, amphipods, corixids & other insects, plus chorus frogs

Site Information Overall site quality: ☐ Excellent ☐ Good ☒ Fair ☐ Poor Property

Current / surrounding land use: Urban residential, industrial

Visible disturbances / possible threats: Pending development as housing project

Comments: Pool mainly 8-10" deep, formerly (December 01) ~ 15" - Returned to site Feb 8  
with Bill Cox, who caught 68 larvae w/ dipnet & confirmed I.D.  
We also found one larva in another pool on the site. (see Wetlands map)

Determination: (check one or more, and fill in blanks)

☐ Keyed (cite reference): \_\_\_\_\_  
☐ Compared with specimen housed at: \_\_\_\_\_  
☐ Compared with photo / drawing in: \_\_\_\_\_  
☐ By another person (name): \_\_\_\_\_  
☒ Other: Confirmed by Bill Cox (DFG) on Feb 8th, at site

Photographs: (check one or more)

Slide \_\_\_\_\_ Print \_\_\_\_\_  
Plant / animal ☐ ☐  
Habitat ☐ ☐  
Diagnostic feature ☐ ☐

May we obtain duplicates at our expense? ☐ yes ☐ no



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➔ **The Power of Commitment**

# Mitigation, Monitoring, and Reporting Program

## Southwest Area Projects Subsequent EIR Addendum – 930 Fresno Avenue

SCH No. 2004062031

| Mitigation Measures (MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Monitoring Responsibility                                                                                    | Timing                                                                                                             | Verification (Initials/Date) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>Visual Quality and Community Character</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                              |                                                                                                                    |                              |
| <b>MM 3.1.5-1 Overall Project Design</b><br>Comply with the Goals, Objectives, and Policies for Community Design in the Community Design Chapter of the Southwest Area Plan. Conformance review shall occur with each development decision utilizing the General Plan Urban Design Element, the Community Design Program of the Southwest Area Plan, and the City's Subdivision Design Guidelines to make decisions regarding proposed developments. Conformance review shall also occur during the City's Design Review process prior to the issuance of grading and construction permits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | City of Santa Rosa Planning and Economic Development Department                                              | Conformance review prior to issuance of grading and construction permit                                            |                              |
| <b>MM 3.1.5-2 Construction Phase</b><br>a. Minimize the stockpiling of sewer and water supply equipment to the extent practicable prior to installation of the infrastructure. Only materials required for several days of construction should be stockpiled at any given site at one time.<br>b. Compensate for the removal of trees necessary to install infrastructure consistent with the Street Design Standard Policies contained in the Community Design Program Chapter of the Southwest Area Plan.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | City of Santa Rosa Planning and Economic Development Department<br><br>Applicant and Construction Contractor | Prior to and during construction<br><br>Approval of tree replacement plan prior to issuance of grading permit      |                              |
| <b>Soils, Geology and Seismicity</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                              |                                                                                                                    |                              |
| <b>MM 3.2.1-2 Seismic Requirements</b><br>Incorporate seismic-restraint criteria in the design of slopes, foundations, and structures for projects within the Plan Area as outlined in the measures listed below:<br>a. The minimum seismic-resistant design standards for all proposed facilities shall conform to the CUBC Seismic Zone 4 Standards.<br>b. Additional seismic-resistant earthwork and construction design criteria shall be incorporated as necessary, based on the site-specific recommendations of California-registered geotechnical and structural engineering professionals, recommended to be in cooperation with a California Certified Engineering Geologist.<br>c. During site preparation, the registered geotechnical professional shall be on the site to supervise implementation of the recommended criteria.<br>d. The California-registered Geotechnical Engineer consultant shall prepare an "as built" map/report, to be filed with the City, showing details of the site geology, the location and type of seismic-restraint facilities, and documenting the following requirements, as appropriate. | City of Santa Rosa Planning and Economic Development Department<br><br>Construction Contractor               | Conformance review prior to issuance of grading and construction permits<br><br>Implementation during construction |                              |

| Mitigation Measures (MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Monitoring Responsibility                                                                             | Timing                                                                                                                                     | Verification (Initials/Date) |
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| <ol style="list-style-type: none"> <li>1. Engineering analyses shall demonstrate satisfactory performance of alluvium and fill where they form part or all of the support for structures.</li> <li>2. Analysis of soil expansion potential and appropriate remediation (compaction, removal, etc.) shall be completed prior to using expansive soils for foundation support.</li> <li>3. Roads, foundations and underground utilities in fill or alluvium shall be designed to accommodate settlement or compaction estimated by the site-specific investigations of the geotechnical consultant.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                                                                                                                            |                              |
| <p><b>MM 3.2.1-3 Erosion Control – Grading during Wet Season</b></p> <p>If grading or construction are to occur during the wet season, require an erosion and sediment transport control plan, designed by an erosion control professional, or landscape architect or civil engineer specializing in erosion control, that shall meet the following objectives for the grading and construction period of projects proposed for the Southwest Plan Area.</p> <ol style="list-style-type: none"> <li>a. The erosion and sediment transport control plan shall be submitted, reviewed, implemented and inspected as part of the approval process for the grading plans for each project.</li> <li>b. The plan shall be designed by the developers' erosion control consultant, using concepts similar to those developed by the Association of Bay Area Governments, as appropriate, based on the specific erosion and sediment transport control needs of each area in which grading and construction is to occur. Those concepts include some which apply generally to the Southwest Plan Area (see bullet items on list below), and some that would be appropriate only for specific sites. The possible methods are not necessarily limited to the following items. <ol style="list-style-type: none"> <li>1. Confine grading and activities related to grading (demolition, construction, preparation and use of equipment and material storage areas (staging areas), preparation of access roads,) to the dry season, whenever possible.</li> <li>2. If grading or activities related to grading need to be scheduled for the wet season, ensure that structural erosion and sediment transport control measures are ready for implementation before the onset of the first major storm of the season.</li> <li>3. Locate staging areas outside major streams and drainage ways.</li> <li>4. Keep the lengths and gradients of constructed slopes (cut or fill) as low as possible.</li> <li>5. Discharge grading and construction runoff into small drainages at frequent intervals to avoid buildup of large potentially erosive flows.</li> <li>6. Prevent runoff from flowing over unprotected slopes.</li> <li>7. Keep disturbed areas (areas of grading and related activities) to the minimum necessary for demolition or construction.</li> <li>8. Keep runoff away from disturbed areas during grading and related activities.</li> <li>9. Stabilize disturbed areas as quickly as possible, either by vegetative or mechanical methods.</li> </ol> </li> </ol> | <p>City of Santa Rosa Planning and Economic Development Department</p> <p>Construction Contractor</p> | <p>Approval of erosion and sediment control plan prior to issuance of grading permit</p> <p>Implemented during construction activities</p> |                              |

| Mitigation Measures (MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Monitoring Responsibility                                                                                         | Timing                                                                                                                    | Verification (Initials/Date) |
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| <ul style="list-style-type: none"> <li>10. Direct runoff over vegetated areas prior to discharge into public storm drainage systems, whenever possible.</li> <li>11. Trap sediment before it leaves the site with such techniques as check dams, sediment ponds, or siltation fences.</li> <li>12. Make the contractor responsible for the removal and disposal of all sedimentation in off-site retention ponds that is generated by grading and related activities of the project.</li> <li>13. Use landscaping and grading methods that lower the potential for down-stream sedimentation. Modified drainage patterns, longer flow paths, encouraging infiltration into the ground, and slower storm-water conveyance velocities are examples of effective methods.</li> <li>14. Control landscaping activities carefully with regard to the application of fertilizers, herbicides, pesticides or other hazardous substances. Provide proper instruction to all landscaping personnel on the construction team.</li> <li>c. During the installation of the erosion and sediment transport control structures, the erosion control professional shall be on the site to supervise the implementation of the designs, and the maintenance of the facilities throughout the demolition, grading and construction period.</li> <li>d. The erosion control professional shall prepare an "as built" erosion and sediment control facility map, to be filed with the City, showing details of the structural elements of the plan and providing an operating and maintenance schedule throughout the operational period of the project.</li> </ul> |                                                                                                                   |                                                                                                                           |                              |
| <p><b>MM 3.2.1-4 Construction Where Soil Suitability is in Question</b></p> <p>Require site-specific soil suitability analysis and stabilization procedures, and design criteria for foundations, as recommended by a California-registered soil engineer during the design phase for each site where the existence of unsuitable soil conditions is known or suspected.</p> <ul style="list-style-type: none"> <li>a. During the design phase for each site where the existence of unsuitable soil conditions is known or suspected, the developer's registered soil engineering consultant shall provide documentation to the City that: <ul style="list-style-type: none"> <li>1. Site-specific soil suitability analyses has been conducted in the area of the proposed foundation to establish the design criteria for appropriate foundation type and support, and</li> <li>2. The recommended criteria have been incorporated in the design of foundation.</li> </ul> </li> <li>b. During grading for these sites, the registered soils professional shall be on the site to: <ul style="list-style-type: none"> <li>1. Observe areas of potential soil unsuitability,</li> <li>2. Supervise the implementation of soil remediation programs, and</li> <li>3. Verify final soil conditions prior to setting the foundations.</li> </ul> </li> <li>c. The registered soils engineering consultant shall prepare an "as built" map, to be filed with the City, showing details of the site soils, the location of foundations, sub-drains and clean-outs, and the results of suitability analyses and compaction tests.</li> </ul>          | <p>City of Santa Rosa<br/>Planning and Economic<br/>Development<br/>Department</p> <p>Construction Contractor</p> | <p>Conformance review prior to issuance of grading and construction permits</p> <p>Implementation during construction</p> |                              |

| Mitigation Measures (MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Monitoring Responsibility                                                                               | Timing                                                                                                                                                   | Verification (Initials/Date) |
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| <b>Hydrology and Water Quality</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                         |                                                                                                                                                          |                              |
| <b>MM 3.2.2-2 Protect Water Quality During Grading</b> <ol style="list-style-type: none"> <li>To the maximum extent feasible, earth-moving activities shall be scheduled for the dry season.</li> <li>Any projects that result in grading of an area greater than 1 acre shall be subject to State Water Resources Control Board Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities, as amended by Order No. 2012-0006. This permit requires that the applicant develop a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall address pollutant sources, non-storm water discharges resulting from construction dewatering, erosion and sedimentation, best management practices, and other requirements specified in the above-mentioned Order. A Qualified Storm Water Pollution Prevention Plan Practitioner will oversee implementation of the Plan, including visual inspections, sampling and analysis, and ensuring overall compliance. The permit requirements shall be satisfied prior to granting of a building permit by the City of Santa Rosa.</li> <li>A soil erosion and sedimentation control plan shall be submitted to the City of Santa Rosa by the applicant for individual projects proposed under the Southwest Area Plan prior to grading. This plan may include, but not be limited to, the following erosion control methods: <ol style="list-style-type: none"> <li>During construction, soil on graded areas shall be revegetated as soon as possible following disruption.</li> <li>Use of interceptor ditches or drainage swales to intercept storm runoff from transporting sediment into drainages and to prevent sediment-laden runoff from leaving the disturbed area.</li> <li>Grading shall be restricted in the months of October through April for construction projects on hillsides with slopes 10% or steeper unless the project is granted an exception by the City.</li> <li>Silt fences shall be constructed to prevent sheet flow across adjacent areas and down gradient into drainages. These and further measures shall be designed through the use of the Universal Soil Loss Equation to calculate the proper storage capacity required of silt fences or gravel bags, and shall be implemented by the contractor prior to mass grading and other soil disturbing construction activities on-site.</li> </ol> </li> <li>Disturbed areas that have been graded for construction shall be replanted as soon as feasible after the completion of construction. Plantings shall be used on surfaces of cut and fill areas to collect surface runoff and reduce erosion.</li> </ol> | City of Santa Rosa<br>Planning and Economic<br>Development<br>Department<br><br>Construction Contractor | Approval of SWPP and<br>erosion and sediment<br>control plan prior to<br>issuance of grading permit<br><br>Implemented during<br>construction activities |                              |
| <b>Noise</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                         |                                                                                                                                                          |                              |
| <b>MM 3.2.5-1 Noise</b> <ol style="list-style-type: none"> <li>To minimize construction noise impacts of nearby residents, limit construction hours to between 7:00 a.m. and 7:00 p.m. on weekdays and between 9:00 a.m. and 6:00 p.m. on Saturdays for projects within 1,600 feet of inhabited dwelling unit(s). Any work outside of these hours shall require a special permit from the City of Santa Rosa. There shall be compelling reasons for permitting construction outside of the designated hours.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | City of Santa Rosa<br>Planning and Economic<br>Development<br>Department<br><br>Construction Contractor | Implemented during<br>construction activities                                                                                                            |                              |

| Mitigation Measures (MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Monitoring Responsibility                                                                                         | Timing                                                                                                                                                                        | Verification (Initials/Date) |
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| <p>b. Construction equipment shall be properly outfitted and maintained with noise reduction devices to minimize construction-generated noise.</p> <p>c. The contractor shall locate stationary noise sources away from residents and developed areas, and require use of acoustic shielding with such equipment when feasible and appropriate.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                   |                                                                                                                                                                               |                              |
| <b>Air Quality</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                   |                                                                                                                                                                               |                              |
| <p><b>MM 3.2.4-1 Implement Air Quality Control Measures during Construction</b></p> <p>Each project proponent is responsible for ensuring that the contractor reduces particulate, ROC, NOx, and CO emissions by complying with the air pollution control strategies developed by the BAAQMD. The developer shall include in construction contracts the following requirements:</p> <p>a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas and unpaved access roads) shall be watered or a non-toxic soil binder applied two times per day;</p> <p>b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered;</p> <p>c. All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited;</p> <p>d. All vehicle speeds on unpaved areas shall be limited to 15 miles per hour;</p> <p>e. All paving shall be completed as soon as possible after work is finished;</p> <p>f. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of CCR). Clear signage shall be provided for construction workers at all access points;</p> <p>g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation; and</p> <p>h. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.</p> | <p>City of Santa Rosa<br/>Planning and Economic<br/>Development<br/>Department</p> <p>Construction Contractor</p> | <p>Confirm inclusion of language in grading and improvement plans prior to issuance of grading and construction permits</p> <p>Implemented during construction activities</p> |                              |
| <b>Utilities and Public Services</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                   |                                                                                                                                                                               |                              |
| <p><b>MM 3.3-2 Collect Sanitary Sewer Connection Fee</b></p> <p>To fund additional infrastructure required to serve the proposed Project as well as other developments in the Southwest Area, the applicable sanitary sewer connection fee will be collected.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | City of Santa Rosa<br>Planning and Economic<br>Development<br>Department                                          | Receipt of fee payment prior to issuance of building permit                                                                                                                   |                              |
| <p><b>MM 3.3-3 Implement Payment of Mitigation Fees for Schools</b></p> <p>Santa Rosa City Schools and Bellevue Union School, Roseland, and Wright School Districts require the payment of statutory fees to offset the cost of providing elementary, junior high, and high school services to new residential</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | City of Santa Rosa<br>Planning and Economic                                                                       | Receipt of fee payment prior to issuance of building permit                                                                                                                   |                              |

| Mitigation Measures (MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Monitoring Responsibility                                                                      | Timing                                                                                                                                                        | Verification (Initials/Date) |
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| developments. The impacted school districts should use these funds to provide adequate school facilities, consistent with Policy PSF-C-2, Page 6-19 of the General Plan, to meet the needs of the additional school district enrolments to reduce school impacts to an insignificant level. The fees charged will be consistent with current district policies.                                                                                                                                                                                                                                                                                                                                                                                                                                              | Development Department                                                                         |                                                                                                                                                               |                              |
| <b>MM 3.3-4 Require Park Land Dedication and Park Development or in-lieu Park Fees</b><br>Prior to issuance of a building permit, require that each project sponsor in the Southwest Area provide adequate park land dedication in their project proposals or pay in-lieu Land Dedication Fees and pay the Park Development Fees. Park Development fees levied by the City should be adequate to cover the cost of park maintenance, both for existing and proposed new parks. Where possible, funds for park maintenance should also be supplemented through additional funding sources, including, but not limited to, Homeowner's Associations, Benefit Assessment Districts, and CFDs. City staff shall work with project sponsors to secure additional funding for park maintenance through such means. | City of Santa Rosa Planning and Economic Development Department                                | Receipt of fee payment prior to issuance of building permit                                                                                                   |                              |
| <b>MM 3.3-6 Implement Community Services District Program</b><br>Prior to approval of final development plans, the Project applicant shall participate in the Community Services District Program, or as otherwise approved by the Director of Planning and Economic Development, as a condition of approval.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | City of Santa Rosa Planning and Economic Development Department                                | Prior to issuance of building permit                                                                                                                          |                              |
| <b>Hazardous Materials</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                |                                                                                                                                                               |                              |
| <b>MM 3.4-1a Implement OSHA Standards for Lead Paint Removal</b><br>United States Occupational Safety and Health Administration (OSHA) standards requiring protection for workers when working with paint containing lead will be implemented during building renovations and/or demolitions, regardless of the concentration. Workers performing paint removal work will follow the OSHA lead standard for the construction industry. The lead content of the paint will be determined and proper waste disposal requirements and worker protection measures implemented.                                                                                                                                                                                                                                   | City of Santa Rosa Planning and Economic Development Department<br><br>Construction Contractor | Confirm requirements in grading and improvement plans prior to issuance of grading and construction permits<br><br>Implemented during construction activities |                              |
| <b>MM 3.4-1b Properly abate asbestos-containing materials</b><br>Prior to demolition of the foundation of the former Santa Rosa Livestock Auction Yard a building and associated utilities, any potentially present asbestos-containing materials must be properly abated by a licensed asbestos contractor. Regulations require that proper safety procedures will be followed while removing, repairing, and disposing of the asbestos-containing materials.                                                                                                                                                                                                                                                                                                                                               | City of Santa Rosa Planning and Economic Development Department<br><br>Construction Contractor | Confirm requirements in grading and improvement plans prior to issuance of grading and construction permits<br><br>Implemented during construction activities |                              |

| Mitigation Measures (MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Monitoring Responsibility                                                                             | Timing                                                                                                                                                               | Verification (Initials/Date) |
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| <b>Historic and Cultural Resources</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       |                                                                                                                                                                      |                              |
| <p><b>MM 3.5-1a Monitor Ground-Disturbing Activities during Construction</b></p> <p>A qualified archaeologist will monitor excavation and other ground-disturbing activities within the project footprint, as necessary. The archaeologist shall conduct inspections during initial grading and provide an evaluation at that time regarding the need for further archaeological monitoring for the site.</p> <p>In the event that any remains of prehistoric or historic human activities, features (such as culturally modified soil deposits), or artifacts are encountered during project-related activities, work in the immediate vicinity of the find shall halt and the contractor shall immediately notify the project superintendent and the City of Santa Rosa liaison. If not already on site, the project superintendent shall immediately contact the City of Santa Rosa Department of Planning and Economic Development (Department). The superintendent shall also retain the services of a qualified cultural resource specialist, as approved by the Department, to evaluate the archaeological deposit. The evaluation will determine the significance of the archaeological deposit in terms of its eligibility for listing in the CRHR, pursuant to California Public Resources Code Section 5024.1. Representatives of the Federated Indians of Graton Rancheria and the Lytton Rancheria shall also be notified and shall be allowed to access the site to make recommendations as to treatment and handling of resources.</p> <p>If field reconnaissance or construction monitoring result in the identification of archaeological deposits and a qualified professional determines that the deposits meet the criteria for listing in the California Register and are therefore determined to be significant deposits, options for avoidance of or minimization of impacts to the sites would include the following:</p> <ol style="list-style-type: none"> <li>1. Modify development plans to allow for the preservation of the archaeological site or sites. This could include incorporating site locations into protected open space areas or parklands.</li> <li>2. In considering any suggested measures proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the City shall determine whether avoidance is feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures as recommended by the archaeologist (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project while mitigation for historic resources or unique archaeological resources is being carried out.</li> <li>3. Should human remains be discovered during construction, all construction activities shall be halted immediately within 50 feet of the discovery, the City shall be notified, and the Sonoma County Coroner shall be notified, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission within 24 hours of the determination, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.</li> </ol> | <p>City of Santa Rosa Planning and Economic Development Department</p> <p>Construction Contractor</p> | <p>Confirm requirements in grading and improvement plans prior to issuance of grading and construction permits</p> <p>Implemented during construction activities</p> |                              |

| Mitigation Measures (MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Monitoring Responsibility                                                | Timing                                                                                                               | Verification (Initials/Date) |
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| <p><b>MM 3.5-1b Incorporate Monitoring Requirements into Grading Plans</b></p> <p>The public improvement and grading plans shall include the following notes:</p> <ol style="list-style-type: none"> <li>1. The grading contractor shall conduct operations only under the direction of an archaeological spot-checking to be conducted by a qualified archaeologist. The archaeological spot-checker shall conduct inspections during initial grading with an evaluation at that time regarding the need for further archaeological monitoring for the project. The spot checker shall contact the Santa Rosa Department of Planning and Economic Development, at (707) 543-3200 when he/she begins the inspection. The spot checker shall submit a report of findings to the Santa Rosa Department of Planning and Economic Development."</li> <li>2. In the event that any remains of prehistoric or historic human activities, features (such as culturally modified soil deposits) or artifacts are encountered during Project-related activities, work in the immediate vicinity of the finds shall halt and the contractor shall immediately notify the project superintendent and the City of Santa Rosa liaison. The project superintendent shall immediately contact the City of Santa Rosa Department of Planning and Economic Development (Department). The superintendent shall also immediately retain the services of a qualified cultural resource specialist, as approved by the Department, to evaluate the deposits for significance and develop a plan of action. Representatives of the Federated Indians of Graton Rancheria and the Lytton Rancheria shall also be notified and shall be allowed to access the site to make recommendations as to treatment and handling of resources. If warranted by the discovery of a concentration of artifacts or soil deposits that may represent an archaeological site, further work in the discovery area should be monitored by an archaeologist and Native American monitor. If human remains are encountered, the contractor must contact the County Coroner. If the Coroner deems the remains to be Native American, the Coroner will contact the NAHC so that a 'Most Likely Descendant' can be designated. The superintendent shall consult with the Most Likely Descendant regarding the disposition of the human remains.</li> </ol> <p>Project personnel shall not disturb or collect cultural resources. Work may not resume until the Department has indicated that work may resume. The resumption of work will be permitted after site has been evaluated, a plan of action has been approved by the Department, and the plan has been carried out to the satisfaction of the Department."</p> | City of Santa Rosa<br>Planning and Economic<br>Development<br>Department | Confirm inclusion of language in grading and improvement plans prior to issuance of grading and construction permits |                              |
| <p><b>MM 3.5-3 Complete Historic Resources Documentation for the Santa Rosa Livestock Auction Yard</b></p> <p>Prior to demolition of the Santa Rosa Livestock Auction Yard buildings and corrals at the Project 22-Cherry Ranch site, the project applicant will deposit a copy of the historic resources evaluation and historic resources site record with the Sonoma County Library, Department of Planning and Economic Development, and Sonoma County Museum, and will deposit a collection of original business documents from the Santa Rosa Livestock Auction yard in the Sonoma County Library. The evaluation records shall include a written historic context statement documenting the significance of the property in the history of Santa Rosa.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | City of Santa Rosa<br>Planning and Economic<br>Development<br>Department | Confirm inclusion of historical records at specified locations                                                       |                              |

| Mitigation Measures (MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Monitoring Responsibility                                                                             | Timing                                                                | Verification (Initials/Date) |
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| <b>Vegetation, Wildlife, and Habitat</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                       |                                                                       |                              |
| <p><b>MM 3.6-1a Replace Trees in Accordance with City Code Chapter 17-24 Trees</b></p> <p>All trees impacted by the Project will be replaced in accordance with City Code Chapter 17-24 – Trees, which requires replacement of two 15-gallon trees for each 6 inches, or fraction thereof, of trunk diameter of the tree to be removed. The replacement ratio is subject to change. Native trees shall be replaced with native tree species. Non-native trees may be replaced by either native or non-native tree species. Trees will be replaced onsite where feasible or off-site when approved by the City, or by payment of cash in-lieu of tree replacement, as allowed by City Code Chapter 17-24.</p> <p>The City Code replacement ratio shall also be implemented for tree removal from the other project sites that contain trees but for which tree surveys have not been completed. Prior to the issuance of a grading permit, a tree replacement plan shall be submitted to and approved by the Santa Rosa Planning and Economic Development Department. The plan shall identify any heritage trees located on site, and indicate the type and number of trees to be removed, the number of required replacement trees by native or non-native species, and the on-site location of the replacement trees or payment of cash in-lieu of tree replacement as allowed by City Code Chapter 17-24.</p>                                                                                                                                                                                                                                                                                                                                                                                                     | City of Santa Rosa Planning and Economic Development Department                                       | Approval of tree replacement plan prior to issuance of grading permit |                              |
| <p><b>MM 3.6-6a Provide Protection of Nesting Raptors and Migratory Birds</b></p> <p>To avoid impacts to nesting raptors or passerine birds, pre-construction nesting surveys shall be conducted 15 days prior to commencing with construction work, if this work would commence between February 1 and August 31. The raptor nesting surveys shall include examination of the ruderal habitats on the site where ground nesting raptors could construct a nest. In addition, all trees on and within 300 feet of the project site (not just trees slated for removal) shall be surveyed, or as determined appropriate by a qualified ornithologist. If nesting birds with eggs or young are found during the surveys, one or more of the following measures may be implemented:</p> <ul style="list-style-type: none"> <li>– An exclusion zone will be established around nests with eggs or young; the need for and size of the exclusion zone is based on factors such as species sensitivity, topography, and proximity to roads and buildings and will be identified by a qualified ornithologist.</li> <li>– Construction activities in the area will be postponed until young are fledged.</li> <li>– The Biological Monitor will monitor the birds on the nest and stop construction if it appears that the birds would abandon the nest or young.</li> <li>– Construction activities shall avoid nest sites until an ornithologist determines that the young have fledged, or nesting activity has ceases.</li> </ul> <p>To minimize the potential for birds to nest in the construction area, nest searches can be conducted and tree removal and other vegetation removal can be done between October 1 and February 1. This shall be noted on improvement plans, grading plans, and building plans.</p> | <p>City of Santa Rosa Planning and Economic Development Department</p> <p>Construction Contractor</p> | Prior to construction that could result in disturbance to bird nests  |                              |

| Mitigation Measures (MM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Monitoring Responsibility                                                                             | Timing                                                                                                               | Verification (Initials/Date) |
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| <p><b>MM 3.6-6b Incorporate Pre-construction Survey Requirements into Grading Plans</b></p> <p>The public improvement and grading plans shall include the following notes:</p> <ol style="list-style-type: none"> <li>The grading contractor shall not begin work until a qualified biologist has conducted a pre-construction survey for nesting raptors within 300 feet of construction activities 15 days before project begins.</li> <li>In the event that nesting birds with eggs or young are found during the surveys, the grading contractor shall suspend all construction activities within the exclusion zone around nests with eggs or young established by the qualified biologist or postpone construction activities in the project area until young are fledged.”</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | City of Santa Rosa Planning and Economic Development Department                                       | Confirm inclusion of language in grading and improvement plans prior to issuance of grading and construction permits |                              |
| <p><b>MM 3.6-11a Protect Water Quality during Construction</b></p> <p>To mitigate for construction-related erosion impacts, best management practices for construction will be implemented during and after construction. The applicant and/or its contractor will obtain coverage under State Water Resources Control Board Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities, as amended by Order No. 2012-0006. This will include submittal of permit registration documents (notice of intent, risk assessment, site maps, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and certifications) to the State Water Resources Control Board. The Storm Water Pollution Prevention Plan will address pollutant sources, non-storm water discharges resulting from construction dewatering, best management practices, and other requirements specified in the above-mentioned Order. The Storm Water Pollution Prevention Plan will also include dust control practices to prevent wind erosion, sediment tracking, and dust generation by construction equipment. The SWPPP shall require that all temporary and permanent erosion control measures be free of plastic monofilament netting. A Qualified Storm Water Pollution Prevention Plan Practitioner will oversee implementation of the Plan, including visual inspections, sampling and analysis, and ensuring overall compliance.</p> <p>Vehicle refueling and storage of hazardous materials will be prohibited within 200 feet of flagged sensitive plant species or sensitive wildlife habitat features (e.g., raptor nests or burrows) that could be affected by such activities and within 100 feet of wetlands or waters of the U.S. and State that will not be directly impacted by immediate construction activities. The need for this refueling and storage buffer will take into consideration drainage patterns and intervening barriers such as roadways, and will be outlined as part of the SWPPP and Spill Containment and Control Plans to be developed for specific projects. For portable equipment that uses fuels or lubricants, polyethylene or other containment material will be used under the equipment to capture leaks or spills.</p> | <p>City of Santa Rosa Planning and Economic Development Department</p> <p>Construction Contractor</p> | <p>Approval of SWPP prior to issuance of grading permit</p> <p>Implemented during construction activities</p>        |                              |