MONK & ASSOCIATES
Environmental Consultants

BIOLOGICAL RESOURCES ANALYSIS
ELM TREE STATION
CITY OF SANTA ROSA
SONOMA COUNTY, CALIFORNIA

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Prepared for

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1. INTRODUCTION

Monk & Associates, Inc. (M&A) has prepared this Biological Resource Analysis for the proposed Elm Tree Station project (herein referred to as the project site). The applicant is proposing to build a fueling station and small market on the project site which is located at 874 North Wright Road in the City of Santa Rosa, Sonoma County, California (Figures 1 and 2). This development would be called the "North Wright Road Center." The purpose of our analysis is to provide a description of existing biological resources on the project site and to identify potentially significant impacts that could occur to sensitive biological resources from development of the North Wright Road Center.

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 Game (CDFG), National Marine Fisheries Service (NMFS), and other resource organizations including the California Native Plant Society (CNPS). Biological resources also include waters of the United States, as regulated by the U.S. Army Corps of Engineers (Corps), and waters of the State as regulated by the California Regional Water Quality Control Board (RWQCB), and CDFG.

This biological resources analysis also provides mitigation measures for "potentially significant" and "significant" impacts that could occur to biological resources. When implemented, the mitigation measures would reduce proposed project impacts to levels considered less than significant pursuant to the California Environmental Quality Act (CEQA). Accordingly, this report is suitable for review and inclusion in any review being conducted by the City of Santa Rosa for the proposed project pursuant to the CEQA.

2. PROPERTY APN, LOCATION, AND SETTING

The 0.98-acre project site is located at 874 North Wright Road, just southeast of the intersection of North Wright Road and the Luther Burbank Memorial Highway (Highway 12) in Santa Rosa, Sonoma County, California. The Assessor's Parcel Number for the parcel is 035-063-001. The project site, located on the western boundary of the City of Santa Rosa, is the site of a former residential home, now demolished. Ornamental trees, shrubs and a pit at the location of a removed septic tank, remain from the former residential land use. A man-made ditch starts in the central eastern portion of the project site, runs diagonally through the project site, and terminates at a stormdrain inlet structure on the west side of the project site alongside North Wright Road. The ditch was likely excavated by the previous homeowner to drain stormwater runoff from the residential area of the project site. Project site vegetation is characterized as ruderal (weedy) and ornamental vegetation, non-native annual grassland and seasonal wetland. There currently are no structures on the site.

Figure 3 provides an aerial photograph showing the project site and surrounding lands. The "Joe Rodota Trail," a bicycle and pedestrian path, is located immediately north and parallel to the northern project site boundary. Immediately east of the project site is an undeveloped parcel(s) that is slated in the General Plan for residential development. Immediately east of the undeveloped parcel(s) is high density residential housing. Commercial and light industrial

businesses are located to the west of the project site on the west side of Wright Road and immediately to the south of the project site. A 4-Lane portion of Highway 12 occurs immediately north of the project site, and high density residential development is located to north of Highway 12.

3. PROJECT DESCRIPTION

Appendix A provides the site development plan for the proposed project. The project applicant proposes to subdivide the ±0.98-acre parcel into two parcels. Parcel 1 is ±31,143 sq. ft. and is to be developed with a fueling station and a small market. The market may house multiple "store–fronts" within the building such as a coffee shop, ice cream parlor and neighborhood market. The fueling station will consist of six gasoline pump stations and four electric charging stations. Solar power will be incorporated into both the fueling station and the market to the extent feasible.

The North Wright Road Center is designed to incorporate the Joe Rodota Trail and its users by providing a bicycle and pedestrian linkage, as well as an easily accessible ±11,600 sq. ft. park/picnic area on Parcel 2 of the project site with bicycle racks and a sheltered area. The park parcel is proposed to be dedicated to the city of Santa Rosa. However, perpetual maintenance of the park will remain with the owner(s) of Parcel 1. An additional pedestrian/bicycle connection will be provided to future residential development that will occur immediately east of Parcel 2.

The overall design of the project will be residential in scale and present a clean, inviting appearance. The canopy for the six-bay service station will not be "trade-mark" but designed to coordinate with the design of the market. As is outlined in the Storm Water Management Plan prepared for the property by BKF/Carlenzoli, Engineers, dated July 2011, portions of both the park parcel and the retail parcel will be used for storm water detention, and treatment.

The subject property was chosen for its:

- Location along a major arterial (State Highway 12)
- Location near a second major arterial (Sebastopol Road)
- Ability to serve existing commuters
- Ability to serve an adjoining neighborhood
- Site accessibility
- Site usability
- Consistency with the General Plan
- Consistency with the Wright-Sebastopol Commercial District Policy Statement

The proposed uses accomplish many public goals by providing:

- A neighborhood market and services adjacent to a planned residential community
- A resting point or destination along the Joe Rodota Trail
- Enhanced bicycle and pedestrian connections
- Superior design
- A convenient service station
- Incorporation of solar power to the extent feasible
- Well positioned electric fueling station

4. ANALYSIS METHODS

For this analysis, M&A biologists used a combination of literature research and field surveys to ascertain field conditions and whether the habitats present on the project site could support special-status species protected pursuant to CEQA. M&A biologists researched the most recent version of the CDFG's Natural Diversity Database, RareFind 3.1 application (CNDDB 2012) 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 2012 electronic version of the California Native Plant Society's (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. All special-status species records were compiled in tables. M&A examined all known record locations for special-status species to determine if special-status species could occur on the project site or within an area of affect.

4.1 Site Assessments

On March 16, 2010, M&A biologists Mr. Geoff Monk and Ms. Isabelle de Geofroy conducted a site evaluation to characterize plant communities and wildlife habitats onsite, and to determine if there could be areas within the project site that would be regulated as waters of the United States and/or State. The evaluations involved searching all habitats on the project site and recording all plant and wildlife species observed. M&A also noted potential habitats on or adjacent to the project site that could support special-status species.

4.2 Rare Plant Surveys

The project site occurs in the region of Sonoma County known as the Santa Rosa Plain. In accordance with policies adopted by the Corps, the CDFG, and the USFWS, special-status plant surveys in the Santa Rosa Plain must be conducted over a minimum two-year period and during the flowering period of the targeted special-status plant species to ensure that special-status plant species do not occur on a site.

Special-status plant surveys were conducted on the project site by Mr. Geoff Monk and Ms. Isabelle de Geofroy on March 16, 2010; by Ms. de Geofroy on April 30, May 28, and June 30, 2010; by Mr. Monk and Ms. Sadie McGarvey on March 18, 2011; and by Ms. de Geofroy on April 19, May 12, and June 17, 2011. The surveys followed USFWS (2005a) published survey guidelines for the Santa Rosa Plain as well as the CDFG (2009) and CNPS (2001) published survey guidelines. 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. These 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 conducted during the months when special-status plant species from the region are known to be evident and flowering.

In accordance with USFWS guidelines, reference special-status plant populations were monitored carefully to ensure that federally listed plant species occurring on the Santa Rosa Plain, including Sonoma sunshine (*Blennosperma bakeri*), Burke's goldfields (*Lasthenia burkei*),

and Sebastopol meadowfoam (*Limnanthes vinculans*), were visible during survey periods. The local reference site used was the Alton Lane Mitigation Site (Figure 4). Visits to the reference site were made prior to each survey to determine if the federally listed plants were flowering and otherwise visible at the time of the surveys. Figure 4, attached, illustrates the proximity of the reference site to the Elm Tree Station project site. Burke's goldfields, Sonoma sunshine and Sebastopol meadowfoam were observed at the reference sites during the 2010 and 2011 survey period in both vegetative and flowering forms.

During surveys, all areas of the project site were examined by walking systematic transects through potential habitat, and by closely examining any existing microhabitats that could support special-status plants (for example, wetland habitats). Nearly all plant species found on the project site were identified to species. All plants were identified to the level required to determine rarity status. 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* (Hickman 1993 and Baldwin et al. 2012) and *A Flora of Sonoma County* (Best et al. 1996).

4.1 California Tiger Salamander (CTS) Larval Surveys

The applicant is assuming presence of CTS and will mitigate these impacts as discussed below. In order to determine if there would be any need to "salvage" CTS on the project site, surveys were conducted. In 2011, spring larval surveys for CTS were completed in the project site's wetlands to determine if there are aquatic habitats on the project site where CTS could be breeding. Authorization to conduct spring larval surveys at the project site was granted by Mr. David Kelly of the USFWS in a March 2, 2011 email correspondence. Suitable aquatic habitats within the project site that provide potential CTS breeding/larval development habitat were surveyed in the spring of 2011. In accordance with CDFG's and USFWS' joint survey protocol, larval surveys were conducted during separate spring periods. The surveys took place on March 19, April 12, and May 12, 2011. All larval surveys were conducted by M&A's federal permitted biologists Mr. Geoff Monk and Mr. Brian Spirou. M&A's staff biologist, Ms. Sadie McGarvey, assisted these two permitted biologists with all surveys.

4.2 Wetland Delineation

On March 16, 2010, M&A biologists Mr. Geoff Monk and Ms. Isabelle de Geofroy conducted preliminary wetland delineation on the project site using the Corps' 1987 *Wetlands Delineation Manual* in conjunction with the regional supplement for the Arid West Region (Corps 2008). The site investigation was completed during a very wet spring at a time when hydrology was plainly apparent. The wetland delineation was conducted by looking at the project site's vegetation, hydrology, and soils at selected data point locations.

Data points and potential wetland areas were mapped using a Trimble Pro-XR Global Positioning System (GPS) having sub-meter accuracy. GPS data were corrected using base station files from the U.S. Forest Service Remote Sensing Laboratory in Sacramento. The delineation map was made from the GPS files using ArcMap 9.0. All spatial data were projected into the California State Plane, NAD 83 coordinate system, Zone 2. Using GPS technology, the

boundaries (within 30 inches) of each delineated wetland was transferred to an aerial photograph of the project site. On September 22, 2010, the preliminary wetland delineation was confirmed in the field by Sahrye Cohen of the San Francisco District of the Corps. The confirmed map is included in this document at Appendix B.

5. RESULTS OF RESEARCH AND PROJECT SITE ANALYSES

The project site's vegetation has been altered through historic and ongoing human activities and primarily supports a mix of ruderal and ornamental taxa. Seasonal wetlands are present in the lower elevations of the east side of the project site. Oregon ash (*Fraxinus latifolia*) and white poplar (*Populus alba*) occur along the edge of the man-made ditch. Below we discuss the soils, the hydrology and topography, the plant communities and associated habitat for wildlife found on the project site.

5.1 Soils

The Natural Resource Conservation Service (NRCS) mapped three soil types on the project site. These soil types are Alluvial land, clayey (AeA); Clear Lake clay, ponded, 0 to 2 percent slopes (CfA); and Wright loam, shallow, wet, 0 to 2 percent slopes (WoA). The soil types are discussed below.

5.1.1 ALLUVIAL LAND, CLAYEY

Alluvial land, clayey (AeA) consists of nearly level clay loams to silty clays underlain by stratified sand and gravel lenses at a depth of 20 to 40 inches. These areas are mainly on alluvial fans or along river and stream channels in the broad valley areas. They are a heterogeneous mixture of finer soil texture which cannot be mapped as distinct series at the scale of mapping.

Alluvial land is used for crops such as prunes and pears, as well as for vineyards, row crops, and pasture. Occasionally, Alluvial land is inundated by floodwater. This results in little or no damage, and there may be some beneficial deposition. *Alluvial land, clayey, is classified as a hydric soil by the NRCS*, as it is frequently flooded for long or very long duration during the growing season.

5.1.2 CLEAR LAKE, PONDED, 0 TO 2 PERCENT SLOPES

Clear Lake soils are poorly-drained soils formed in alluvium derived from sedimentary rock. These soils occur on plains and flat basin areas and predominate on the project site. They occur in an area that extends from approximately 5 miles south of Santa Rosa and east of Petaluma to north of the tidelands bordering San Francisco Bay.

Clear Lake clay, ponded, 0 to 2 percent slopes is in poorly drained basins and on floodplains and is subject to temporary ponding. Permeability is slow. Runoff is slow and the hazard of erosion is slight. The available water capacity is 8 to 10 inches. This soil is used mainly for producing oat-vetch hay or oat hay for feeding cattle and horses. *Clear Lake Soil clay, ponded, 0 to 2 percent slopes is classified as a hydric soil by the NRCS*, as this soil is frequently ponded for long or very long duration during the growing season; and/or it is a poorly drained soil with a water table that has a depth of 1 foot or less during the growing season, if permeability is less than 6 inches/hour in any layer within a depth of 20 inches.

5.1.3 WRIGHT LOAM, SHALLOW, WET, 0 TO 2 PERCENT SLOPES

The Wright soil series consists of somewhat poorly drained and moderately well-drained loams that have a clay subsoil. They are underlain by old valley, plain alluvium of mixed origin such as volcanic and marine sediment. These soils are mostly undulating and are on low terraces. They are mainly on the central Santa Rosa Plain and south of the town of Sonoma. Wright soils are used mainly for dryland and irrigated pasture.

Wright loam, shallow, wet, 0 to 2 percent slopes has an A horizon that ranges from 10 to 20 inches in thickness and from very fine sandy loam to sandy clay loam in texture. Permeability is very slow in the subsoil; drainage is somewhat poor. The available water capacity is 3 to 5 inches. *Wright loam, shallow, wet, 0 to 2 percent slopes is classified as a hydric soil by the NRCS*, as this soil is frequently ponded for long or very long duration during the growing season; and/or it is a poorly drained soil with a water table that has a depth of 1 foot or less during the growing season, if permeability is less than 6 inches/hour in any layer within a depth of 20 inches.

5.2 Site Topography

Topography of the project site varies from previously graded level areas to nearly level undulating terrain bisected by a ditch and that appears to dip to a lower elevation at the southeast corner of the project site. Elevations range from 89.76 to 94.57 feet above sea level, with the highest elevations occurring at the site of the former home site at the northwestern corner of the project site. The lowest point in the project site is at the centerline of the man-made ditch. Lower elevations on the site are concentrated along the length of the ditch and in the southeastern and northeastern corners of the project site.

5.3 Site Hydrology

The project site has no significant offsite watershed. Virtually the entire project site drains during storm events via percolation into the soil and into the ditch and topographic low areas on the northeastern and southeastern sides of the project site. Soil pit investigations found a high water table on the east side of the project site during a site visit on March 16, 2010.

Appendix B depicts the confirmed Corps jurisdictional map for the project site. Under normal conditions, a man-made ditch on the project site leads into a drain inlet on the southwestern corner of the project site and drains stormwater from the entire project site into the City of Santa Rosa's underground municipal storm drain system; however, redeposition of fill from recent home site and septic tank removal has resulted in blockages in the conveyance ditch which effectively stops all water from being conveyed off the project site. Accordingly, ponded and/or flooded conditions in the ditch and the south side of the project site are prolonged during the rainy season, thus enhancing wetland conditions.

5.4 Plant Communities and Associated Wildlife Habitats

The project site's vegetation has been altered through historic and ongoing human activities and primarily supports a mix of ruderal and ornamental taxa. Seasonal wetlands are present in the lower elevations of the east side of the project site. Oregon ash (*Fraxinus latifolia*) and white

poplar (*Populus alba*) occur along the edge of the man-made ditch. Below we discuss the plant communities and associated habitat for wildlife found on the project site.

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 et al. 2012). Table 2 is a list of wildlife species observed on the project site. Nomenclature for wildlife follows CDFG's Complete list of amphibian, reptile, bird, and mammal species in California (2008) and any changes made to species nomenclature as published in scientific journals since the publication of CDFG's list.

The project site supports three plant communities: non-native annual grassland, seasonal wetlands and anthropogenic communities. These plant communities are discussed in detail below.

5.4.1 NON-NATIVE ANNUAL GRASSLAND

Prior to European settlement of California, the valley and coastal grasslands were dominated by a mix of native, perennial bunchgrasses and spring-flowering forbs (broad-leaved plants) accustomed to intermittent, low-pressure grazing, browsing, and trampling by deer and other native ungulates such as tule elk (*Cervus elaphus nannodes*) and pronghorn (*Antilocapra americana*). Native plants commonly found in California at that time were purple-needle grass (*Stipa pulchra*), California oat grass (*Danthonia californica*), and blue wildrye (*Elymus glaucus*). European settlement resulted in the introduction of Mediterranean and Eurasian grasses and forbs for horticulture, agriculture and forage as well as unintentional introductions of exotic species in the fur and digestive systems of livestock. Introduced, annual grasses flourished under the high grazing pressure of cattle while native, perennial bunchgrasses diminished under the same conditions. Introduced species tolerant of high grazing pressure, particularly annual grasses of Eurasian ancestry, have displaced native bunchgrasses and created a shift in plant species composition toward non-native annual grassland.

Non-native annual grassland occurs on the upland portions of the project site. This plant community is dominated by non-native grasses such as Harding grass (*Phalaris aquatica*), Italian ryegrass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), slender oats (*Avena barbata*), roadside brome (*Bromus catharticus* var. *elatus*) and non-native forbs such as Italian thistle (*Carduus pycnocephalus*), spring vetch (*Vicia sativa*), salsify (*Tragopogon porrifolius*), rough cat's ear (*Hypochaeris radicata*) prickly lettuce (*Lactuca serriola*), dissected geranium (*Geranium dissectum*), California burclover (*Medicago polymorpha*), white-stem filaree (*Erodium moschatum*) and wild teasel (*Dipsacus sativus*).

The project site's grassland habitat provides food and cover for a variety of wildlife species. The grasses, thistles, and some forbs provide seeds for passerine birds (perching birds) such as the lesser goldfinch (*Carduelis psaltria*), house finch (*Carpodacus mexicanus*), and spotted towhee (*Pipilo maculatus*), all of which were observed on the project site. Insects that feed on the wildflowers and grasses also provide a food source for commonly occurring insectivorous birds and reptiles such as the black phoebe (*Sayornis nigricans*), yellow-rumped warbler (*Dendroica coronata*), and western fence lizard (*Sceloporus occidentalis*). These animals provide a food

source for larger raptors such as the red shouldered hawk (*Buteo lineatus*), which has been observed foraging over the project site.

5.4.2 ANTHROPOGENIC COMMUNITIES

Anthropogenic communities can describe several types of human-influenced plant communities. Ruderal (weedy) communities are assemblages of plants that thrive in waste areas, roadsides and other sites that have been affected by human activity. In many areas of California, non-native and native trees were planted for agricultural purposes, ornamental purposes, to serve as windbreaks or for lumber. Many of these trees naturally reproduce and invade existing plant communities or just remain as remnants in the landscape. On the project site, anthropogenic communities consist of ruderal vegetation and ornamental plants. Ruderal vegetation thrives in the former residential areas of the project site, particularly on the former building pads where soils are compacted, and in locations where soils have been recently disturbed from demolition activities. Common ruderal species detected in this community include slender wild oats, ripgut brome, soft chess (*Bromus hordeaceus*), white-stem filaree (, California burclover, short-podded mustard (*Hirschfeldia incana*), white clover (*Trifolium repens*), milk thistle (*Silybum marianum*), Italian thistle (*Carduus pycnocephalus*), and bull thistle (*Cirsium vulgare*).

Ornamental trees and shrubs that were planted by the previous property owners occur throughout the project site, although most are concentrated in the former residential area. Ornamental trees identified on site include white poplar, Monterey pine (*Pinus radiata*), Siberian elm (*Ulmus pumila*), and Mayten tree (*Maytenus boaria*). Several native valley oaks (*Quercus lobata*) have also been planted along the edge of the project site, as well as fruit trees, including plum (*Prunus* sp.) and quince (*Cydonia oblonga*). Ornamental shrubs and plants include rose bushes (*Rosa* sp.), calla lily (*Zantedeschia aethiopica*), daffodil (*Narcissus* sp.) and iris (*Iris* sp.).

Several ornamental and invasive ruderal plants are becoming naturalized on the project site. Mayten tree and white poplar saplings and young fruit trees were observed on and adjacent to the banks of the man-made ditch. The invasive giant reed (*Arundo donax*) was also detected onsite.

Anthropogenic habitats typically provide habitat for common animals that are adapted to living in association with man. Non-secretive birds, in particular, can utilize both native and non-native trees for foraging, nesting and perching, while ruderal areas can still provide foraging habitat. Common wildlife species associated with anthropogenic communities include Botta's pocket gopher (*Thomomys bottae*), California meadow vole (*Microtus californicus*), western fence lizard, western scrub jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), American robin (*Turdus migratorius*), California towhee (*Pipilo crissalis*), bushtit (*Psaltriparus minimus*), and house finch, all of which were observed on the project site.

5.4.3 SEASONAL WETLANDS

Seasonal wetlands are habitats that may appear dry in the summer and fall months, but by the first winter rains become inundated and hold water for a period of several weeks to months at a time. Seasonal wetlands are able to hold water for long duration typically due to the presence of impervious soils and/or confining topography such as depressions also known as topographic

low areas. On the project site, two topographic depressions on the east side of the project site and the man-made ditch leading to a City-maintained drain inlet support seasonal wetland vegetation. Wetland hydrology is prolonged on the project site owing to blockages in the ditch on the site that drain the site to the City's storm drain inlet alongside North Wright Road. Species within this plant community include cocklebur (*Xanthium strumarium*), curly dock (*Rumex crispus*), annual semaphore grass (*Pleuropogon californicus*), western mannagrass (*Glyceria occidentalis*), tall flatsedge (*Cyperus eragrostis*), creeping spikerush (*Eleocharis macrostachya*), dense sedge (*Carex densa*), hyssop loosestrife (*Lythrum hyssopifolium*), Italian ryegrass, and bird's foot trefoil (*Lotus corniculatus*).

The seasonal wetlands on the project site provide a temporary water source for wildlife. These areas may hold water long enough to provide amphibians adapted to short hydroperiods with breeding habitat. Sierran tree frog larvae (*Pseudacris regilla*) have been detected in the seasonal wetlands on the project site. A mallard (*Anas platyrhynchos*) nest was observed along the man-made ditch on the project site. Other aquatic species observed while conducting dip-netting studies included invertebrates such as water scavenger beetle (Hydrophilidae), predacious water beetle (Dytiscidae), back swimmers (Notonectidae), water boatmen (Corixidae), dragonfly larvae (Epiprocta), and clam shrimp (Conchostraca).

6. SPECIAL-STATUS SPECIES DEFINITION

6.1 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 California Environmental Quality Act (CEQA) (14 CCR §15380) that may include species not found on either State or Federal Endangered Species lists;

- Plants occurring on Lists 1A, 1B, 2, 3, and 4 of CNPS' *Electronic Inventory* (CNPS 2001). The California Department of Fish and Game (CDFG) recognizes that Lists 1A, 1B, and 2 of the CNPS inventory contain plants that, in the majority of cases, would qualify for State listing, and CDFG requests their inclusion in EIRs. Plants occurring on CNPS Lists 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;

- migratory nongame birds of management concern listed by U.S. Fish and Wildlife Service (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 CDFG (2012);

- Animal species that are "fully protected" in California (Fish and Game Codes 3511, 4700, 5050, and 5515).

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 Federal 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 state Endangered Species Act (§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 CDFG 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 List Species. The California Native Plant Society (CNPS) maintains an inventory of special status plant species. This inventory has four lists of plants with varying rarity. These lists are: List 1, List 2, List 3, and List 4. Although plants on these lists have no formal legal protection (unless they are also state or federal listed species), the California Department of Fish and Game requests the inclusion of List 1 species in environmental documents. In addition, other state and local agencies may request the inclusion of species on other lists as well. List 1 species have the highest priority: List 1A species are thought to be extinct, and List 1B species are known to still exist but are considered "rare, threatened, and endangered in California and elsewhere." All of the plants constituting List 1B meet the definitions of Section 1901, Chapter

10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the CDFG Code, and are eligible for state listing (CNPS 2001). List 2 species are rare in California, but more common elsewhere. Lists 3 and 4 contain species about which there is some concern, and are review and watch lists, respectively. Additionally, in 2006 CNPS updated their lists to include "threat code extensions" for each list. For example, List 1B species would now be categorized as List 1B.1, List 1B.2, or List 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 List 1 and 2 species are considered since these are the only CNPS species that meet CEQA's definition of "rare" or "endangered." Impacts to List 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.

Protected Amphibians. Under Title 14 of the California Code of Regulations (14 CCR 41), protected amphibians, such as the California tiger salamander, may only be taken under special permit from California Department of Fish and Game issued pursuant to Sections 650 and 670.7 of these regulations.

6.2 Potential Special-Status Plants on the Project Site

Figure 5 provides a graphical illustration of the closest known records for special-status species within 5 miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site.

According to the CNPS' *Inventory* and CDFG's CNDDB, a total of 62 special-status plant species are known to occur in the region of the project site (Table 3). Many of these plants occur in specialized habitats such as serpentinite soils, chaparral, coastal scrub or marshes. The project site's ruderal and non-native, annual grassland with two small seasonal wetlands provides suitable habitat for only 14 of these 62 special-status plant species. These plants are discussed in the paragraphs below.

Finally, the project site is designated by the USFWS' Santa Rosa Plain Conservation Strategy as having "potential for presence of CTS and listed plants" (USFWS 2005b). In accordance with the *Programmatic Biological Opinion of U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain* (USFWS 1998), if surveys have been conducted following USFWS protocols and no listed plants are found, seasonal wetlands on the project site (located in the South Area of the Santa Rosa Plain Study Area) are nevertheless considered to be suitable habitat for listed plant species Sonoma sunshine (*Blennosperma bakeri*), Burke's goldfields (*Lasthenia burkei*), and Sebastopol meadowfoam (*Limnanthes vinculans*). Impacts to suitable habitat for these listed plants are

required to be mitigated with 1:1 occupied or established habitat (any combination) and 0.5:1 of established habitat prior to groundbreaking. The mitigation land is to be preserved and managed in perpetuity.

6.2.1 BIG SCALE BALSAM-ROOT

Big-scale balsam-root (*Balsamorhiza macrolepis*) is a CNPS List 1B.2 species. It has no state or federal status. This perennial member of the sunflower family is found in chaparral, woodland, and grassland habitats, sometimes on serpentinite soils, from 295 to 5101 feet in elevation. It is most frequently encountered on rocky outcrops, and often on hillslopes. Big-scale balsam-root flowers from March through June. Big-scale balsam-root is known to occur within the Sebastopol, California U.S. Geological Survey Quadrangle although there no CNDDB records for this species within 5 miles of the project site. The non-native grassland that comprises a portion of the project site provides marginally suitable habitat for this plant that is known from valley and foothill grasslands but lacks any serpentinite or gabbro substrate. Special-status plant surveys were conducted by M&A in March, April, May and June of 2010 and 2011. Big-scale balsam-root was not found during any of M&A's appropriately timed surveys. Hence, no impacts to this species are expected from the proposed development and no mitigation should be required.

6.2.2 SONOMA SUNSHINE

Sonoma sunshine is a federal and state-listed endangered plant species. It is also a CNPS List 1B.1 species, indicating that it is seriously endangered in California. This annual member of the sunflower family is found in vernal pools and grassland habitats from 10 to 110 meters elevation, known only from Laguna de Santa Rosa and the Sonoma area. It is threatened by urbanization, grazing and agriculture. Sonoma sunshine flowers from March through May.

The project site provides suitable habitat for this species within the annual grassland and seasonal wetlands. The closest CNDDB occurrence for this plant is 2.0 miles north of the project site west of Santa Rosa (Occurrence No. 9); this CNDDB occurrence is from 1997. This population is still believed to be extant although site quality is much reduced after disking for fire control began (according to the CNDDB record). Special-status plant surveys were conducted by M&A in March, April, May, and June of 2010 and 2011 and this plant was not observed onsite. These surveys were conducted at times when this plant was evident and identifiable at the nearby Alton Lane Mitigation Site. M&A believes that the project site's absence of vernal pools, lack of mesic grassland and the strong anthropogenic influence on the project site reduce the likelihood this plant would naturally occur onsite. The project site surveys confirm this. Although this plant has not been observed onsite after two years of appropriately timed surveys, according to the USFWS' Santa Rosa Plain Conservation Strategy, any impact to potentially suitable seasonal wetland habitat for Sonoma sunshine would be significant. The Impacts and Mitigation Measures that follow address these impacts.

potential

6.2.3 HAYFIELD TARWEED

Hayfield tarweed (*Hemizonia congesta* ssp. *congesta*) is a CNPS List 1B.2 species. It has no state or federal status. This annual member of the sunflower family is found in valley and foothill grassland from 65 to 1837 feet in elevation, sometimes on roadsides. Hayfield tarweed blooms

from April through November. The closest CNDDB occurrence for this plant is 0.1-mile west of the project site on the west side of Santa Rosa (Occurrence No. 27); this CNDDB occurrence is from 1994. This population is presumed extant (according to the CNDDB record).

Special-status plant surveys were conducted on the project site by M&A in March, April, May, and June of 2010 and 2011 and this species was not observed onsite. Since this plant has not been observed onsite after two years of appropriately timed surveys, no impacts to hayfield tarweed are expected from the proposed development.

6.2.4 BURKE'S GOLDFIELDS

Burke's goldfields is federally-listed and state-listed as endangered, and is a CNPS List 1B.1 species, indicating that it is seriously endangered in California. This annual member of the sunflower family is found in vernal pools, meadows and seeps from 15 to 600 meters elevation. Burke's goldfields flowers from April through June and is known only from southern portions of Lake and Mendocino counties and from northeastern Sonoma County (the Santa Rosa Plain). Historically, 39 populations were known from the "Cotati valley" (Santa Rosa Plain area), 2 sites in Lake county, and one site in Mendocino County. The occurrence in Mendocino County is most likely extirpated. From north to south in the Cotati Valley, the species ranges from north of the community of Windsor to east of the city of Sebastopol. The project site provides marginally suitable habitat for this species within the annual grassland and seasonal wetlands. The closest CNDDB occurrence for this plant is 0.5-mile northwest of the project site and west of Santa Rosa (Occurrence No. 28); this CNDDB occurrence is from 2002. This population is believed to still be extant and preserved in the Wright Preservation Bank. This plant also occurs on the parcel adjacent to the Wright Bank (CNDDB records).

Special-status plant surveys were conducted by M&A in March, April, May, and June of 2010 and 2011 and this plant was not observed onsite. These surveys were conducted at times when this plant was evident and identifiable at the nearby Alton Lane Mitigation Site. M&A believes that the project site's absence of vernal pools, lack of mesic grassland and the strong anthropogenic influence on the project site reduce the likelihood this plant would naturally occur onsite. The project site surveys confirm this. Although this plant has not been observed onsite after two years of appropriately timed surveys, according to the USFWS' Santa Rosa Plain Conservation Strategy, any impact to potentially suitable seasonal wetland habitat for Burke's goldfields would be significant. The Impacts and Mitigation Measures that follow address these impacts.

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6.2.5 BAKER'S GOLDFIELDS

Baker's goldfields (*Lasthenia californica* ssp. *bakeri*) is a CNPS List 1B.1 species. It has no state or federal status. This annual member of the sunflower family is found in closed-cone conifer forest, coastal scrub, meadows, seeps and marshes from 196 to 1706 feet in elevation. Baker's goldfields flowers from April through October and is known only from Mendocino, Marin and Sonoma counties. Historically, 14 populations were known from these counties, with 3 populations in Marin, 4 populations in Sonoma (Santa Rosa Plain area) and 7 populations in Mendocino County. Only one of these occurrences, last observed in 1957, is most likely extirpated.

The project site provides marginally suitable habitat for this species within the annual grassland and seasonal wetlands. The closest CNDDB occurrence for this plant is 2.7 miles west of the project site and west of Santa Rosa (Occurrence No. 3); this CNDDB occurrence is from 1939. This population is believed to still be extant (CNDDB record). Special-status plant surveys were conducted by M&A in March, April, May, and June of 2010 and 2011 and this plant was not observed onsite. M&A believes that the project site's absence of coniferous forest, scrub and marshes and the strong anthropogenic influence on the project site reduce the likelihood this plant would naturally occur onsite. The project site surveys confirm this. Since this plant has not been observed onsite after two years of appropriately timed surveys, no impacts to Baker's goldfields are expected from the proposed development.

6.2.6 CONTRA COSTA GOLDFIELDS

Contra Costa goldfields (*Lasthenia conjugens*) is a federally-listed endangered plant. It is also on CNPS List 1B.1. It has no state status. Contra Costa goldfields is a showy, spring annual herb with yellow flowers in the sunflower family. Contra Costa goldfields occur in vernal pools within open, grassy areas in woodland and valley grasslands from 0 to 1,542 feet in elevation. Currently, 23 populations are believed to be extant in Mendocino, Napa, Marin, Contra Costa, Alameda, Solano, Sonoma, and Monterey counties. Contra Costa goldfields is known to occur within the Sebastopol, California U.S. Geological Survey Quadrangle although there no CNDDB records for this species within 5 miles of the project site.

The non-native annual grassland and seasonal wetlands on the project site provide marginal habitat for Contra Costa goldfields. Special-status plant surveys were conducted by M&A in March, April, May, and June of 2010 and 2011 and this plant was not observed onsite. M&A believes that the project site's absence of vernal pools, lack of mesic grassland and the strong anthropogenic influence on the project site reduce the likelihood this plant would naturally occur onsite. The project site surveys confirm this. Since this plant has not been observed onsite after two years of appropriately timed surveys, no impacts to Contra Costa goldfields are expected from the proposed development.

6.2.7 MARSH SILVERPUFFS

Marsh silverpuffs (*Microseris paludosa*) is a CNPS List 1B.2 species. It has no state or federal status. This annual member of the sunflower family is found in closed-cone conifer forest, cismontane woodland, coastal scrub, and mesic, grassy slopes from 16 to 984 feet in elevation. Marsh silverpuffs flowers from April through July. The project site provides marginally suitable habitat for this species within the annual grassland and seasonal wetlands. The closest CNDDB occurrence for this plant is 2.7 miles south of the project site and southeast of Sebastopol (Occurrence No. 20); this CNDDB occurrence is from 1978. This population is located in the Laguna De Santa Rosa drainage and is believed to still be extant.

Special-status plant surveys were conducted by M&A in March, April, May, and June of 2010 and 2011 and this plant was not observed onsite. M&A believes that the project site's absence of coniferous forest, woodland scrub and marshes and the strong anthropogenic influence on the project site reduce the likelihood this plant would naturally occur onsite. The project site surveys

confirm this. Since this plant has not been observed onsite after two years of appropriately timed surveys, no impacts to Marsh silverpuffs are expected from the proposed development.

6.2.8 DWARF DOWNINGIA

Dwarf downingia (*Downingia pusilla*) is a CNPS List 2.2 species. It has no state or federal status. This small, annual member of the bellflower family is found in vernal pools and mesic valley and foothill grassland from 3 to 1459 feet in elevation. Dwarf downingia flowers from March through May in the Santa Rosa Plain in Sonoma County, in Napa and Solano Counties, and in the Central Valley from the Sacramento region southward. The project site provides marginally suitable habitat for this species within the annual grassland and seasonal wetlands. The closest CNDDB occurrence for this plant is 2.2 miles south of the project site and southwest of Santa Rosa (Occurrence No. 86); this CNDDB occurrence is believed to still be extant.

Special-status plant surveys were conducted by M&A in March, April, May, and June of 2010 and 2011 and this plant was not observed onsite. M&A believes that the project site's absence of vernal pools, mesic grassland and the strong anthropogenic influence on the project site reduce the likelihood this plant would naturally occur onsite. The project site surveys confirm this. Since this plant has not been observed onsite after two years of appropriately timed surveys, no impacts to dwarf downingia are expected from the proposed development.

6.2.9 BEARDED SEDGE

Bearded sedge (*Carex comosa*) is a CNPS List 2.1 species. It has no state or federal status. This perennial member of the sedge family is found in marshes, swamps, lake margins, coastal prairie and annual grassland from 0 to 625 meters elevation. Bearded sedge flowers from May through September. The project site provides marginally suitable habitat for this species within the annual grassland and seasonal wetlands. This taxon is known to occur within the Sebastopol, California U.S. Geological Survey Quadrangle although there no CNDDB records for bearded sedge within 5 miles of the project site.

Special-status plant surveys were conducted by M&A in March, April, May, and June of 2010 and 2011 and this plant was not observed onsite. M&A believes that the project site's absence of marshes, swamps and coastal prairie coupled with the strong anthropogenic influence on the project site reduce the likelihood this plant would naturally occur onsite. The project site surveys confirm this. Since this plant has not been observed onsite after two years of appropriately timed surveys, no impacts to bearded sedge are expected from the proposed development.

6.2.10 FRAGRANT FRITILLARY

Fragrant fritillary (*Fritillaria liliacea*) is on CNPS List 1B.2 but has no federal or state status. This white-flowering, bulbiferous member of the lily family is found in cismontane woodland, coastal prairie, coastal scrub and annual grassland, often on serpentine soils from 10 to 1,345 feet in elevation. Fragrant fritillary is an early bloomer, flowering between February and April. Subsequent to the blooming period, fragrant fritillary can be identified on a site by its characteristic fruits. The closest CNDDB occurrence is 3.1 miles southeast of the project site (Occurrence No. 49). The project site provides suitable habitat for this species but lacks serpentine substrate. No members of the *Fritillaria* genus were identified onsite during March,

April and May of 2010 and 2011 special-status plant surveys; thus, the potential for occurrence is low to none. No impacts to this special-status species are expected from the proposed development and no mitigation would be required.

6.2.11 SHOWY INDIAN CLOVER

Showy Indian clover (*Trifolium amoenum*) is federally endangered and a CNPS List 1B.1 plant but has no state status. This annual member of the pea family is characterized by dense heads of purple flowers with white tips. Showy Indian clover blooms between April and June. Historically, this species occurred in a variety of habitats including low, wet swales, grasslands, and grassy hillsides up to 310 m (1,020 ft) in elevation, sometimes on serpentine substrate. The historical range of showy Indian clover was from the western edge of the Sacramento Valley in Solano County, west and north to Marin and Sonoma counties. The project site provides suitable habitat for this species within the annual grassland and seasonal wetlands.

The closest CNDDB occurrence for showy Indian clover is 0.4-mile southwest of the project site (Occurrence No. 20). This CNDDB occurrence is from 1945. Significant loss of showy Indian clover habitat resulted primarily from urbanization and land conversion to agriculture. Showy Indian clover was considered extinct until 1993, when Peter Connors from the Bodega Marine Laboratory discovered a single plant in Sonoma County. In 1994, Dr. Connors grew 18 plants in cultivation from seed produced by this plant found to produce seed for later reintroduction efforts. The current population consists of about 200 plants growing on two residential lots in Marin County. Both landowners are currently cooperating in the conservation of the species on their property.

Special-status plant surveys were conducted by M&A in March, April, May, and June of 2010 and 2011 and this plant was not observed onsite. Since this plant has not been observed onsite after two years of appropriately timed surveys, no impacts to showy Indian clover are expected from the proposed development.

6.2.12 SEBASTOPOL MEADOWFOAM

Sebastopol meadowfoam is a federal and state listed endangered species. It is also on CNPS List 1B. This annual member of the meadowfoam family has small, bowl-shaped, white flowers and mature leaves that 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. Sebastopol meadowfoam is found in meadows, mesic valley and foothill grassland and vernal pools from 49 to 344 feet elevation. The species has not been recorded outside the southwestern Cotati Valley, where it occurs in less than thirty locations. Where it does occur, it is found in seasonally wet meadows, swales and vernal pools in the Laguna de Santa Rosa, Sonoma County. The species ranges from the city of Graton, east to Santa Rosa, southeast to Scenic Avenue, and southwest to the community of Cunningham, largely surrounding the northern and western perimeter of the city of Sebastopol. The closest CNDDB occurrence for this plant is 0.1-mile northwest of the project site and west of Santa Rosa (Occurrence No. 22); this CNDDB occurrence is from 2010. This population is believed to still be extant, part of which is preserved in the Wright Preservation Bank and occurs in both constructed and natural vernal pools.

The project site provides suitable habitat for this species within the annual grassland and seasonal wetlands. Special-status plant surveys were conducted by M&A in March, April, May, and June of 2010 and 2011 and this plant was not observed onsite. These surveys were conducted at times when this plant was evident and identifiable at the nearby Alton Lane Mitigation Site. Although this plant has not been observed onsite after two years of appropriately timed surveys, according to the USFWS' Santa Rosa Plain Conservation Strategy, any impact to potentially suitable seasonal wetland habitat for Sebastopol meadowfoam would be significant. The Impacts and Mitigation Measures that follow address these impacts.

6.2.13 BAKER'S NAVARRETIA

Baker's navarretia (*Navarretia leucocephala bakeri*) is a CNPS List 1B.1 species. It has no federal or state status. This annual member of the phlox family is found in cismontane woodland, lower montane coniferous forest, meadows and seeps, vernal pools and valley and foothill grasslands from 5 to 1740 meters elevation. This species occurs from Humboldt County south to Marin County, extending east to Sutter and Glenn counties. There are several disjunct populations further the northeast in Modoc and Lassen counties as well as to the southeast in Madera and Merced counties. Suitable habitat for Baker's navarretia occurs in the seasonal wetlands and in the annual grasslands on the project site although no vernal pools occur onsite. The closest CNDDB occurrence for this plant is 0.1-mile north of the project site and west of Santa Rosa (Occurrence No. 21); this CNDDB occurrence is from 1994. This population is believed to still be extant.

Special-status plant surveys were conducted by M&A in March, April, May, and June of 2010 and 2011 and this plant was not observed onsite. Since this plant has not been observed onsite after two years of appropriately timed surveys, no impacts to Baker's navarretia are expected from the proposed development.

6.2.14 THIN-LOBED HORKELIA

Thin-leaved horkelia (*Horkelia tenuiloba*) is a CNPS List 1B.2 species. It has no federal or state status. This annual member of the rose family is found in mesic openings on sandy soils in broad-leaved upland forest, valley and foothill grassland and chaparral from 164 to 1640 feet in elevation. It flowers between May and July. According to herbarium records, this species occurs from Mendocino, Marin, Sonoma, Monterey and San Luis Obispo counties. Marginally suitable habitat for thin-leaved horkelia occurs in the seasonal wetlands and annual grasslands on the project site although no chaparral or forest occurs onsite. The closest CNDDB occurrence for this plant is 2.7 miles southwest of the project site and near Sebastopol school (Occurrence No. 6); this CNDDB occurrence is a historic occurrence from 1931 and is presumed extant (CNDDB record).

Special-status plant surveys were conducted by M&A in March, April, May, and June of 2010 and 2011 and this plant was not observed onsite. Since this plant has not been observed onsite after two years of appropriately timed surveys, no impacts to thin-leaved horkelia are expected from the proposed development.

6.3 Potential Special-Status Animals on the Project Site

Figure 5 provides a graphical illustration of the closest known records for special-status species within 5 miles of the project site and helps readers visually understand the number of sensitive species that occur in the vicinity of the project site. No special-status animals have ever been mapped on the project site. Field surveys, including aquatic dip-netting surveys, were conducted by M&A in March, April, May, and June of 2010 and 2011. No special-status animal species were observed on the project site during those studies. However, according to the CNDDB, a total of 6 special-status animal species are known to occur within five miles of the project site (Table 4). Of the 6 species listed in Table 4, due to habitat requirements, only one only one special-status species, the California tiger salamander, has the potential to occur on the project site. All other special-status animals known from the region are summarily dismissed for the reasons presented in Table 4 and are not discussed further in this report. Additionally, based on M&A's experience, it is our expectation that raptors (birds of prey) and passerine (perching birds) could also nest in the mature ornamental and native trees on or adjacent to the project site. Those raptors that could nest onsite are also discussed below.

6.3.1 California Tiger Salamander

6.3.1.1 Legal Status

The project site is located within the known range of the Sonoma County "Distinct Population Segment" (DPS) of the California tiger salamander (*Ambystoma californiense*) (CTS). Under the FESA, the USFWS emergency listed the Sonoma County DPS 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 2003a). USFWS determined that this population 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. Finally, in September 2011, USFWS designated Critical Habitat for CTS in the Santa Rosa Plain. *The project site is within designated Critical Habitat.*

On March 4, 2010, CTS was also state listed as a threatened species under the California Endangered Species Act (CESA). Proposed projects may not impact the CTS without incidental taking authority from both the USFWS and the CDFG. Prior to impacting habitat that supports CTS, the USFWS must prepare an incidental take permit pursuant to either Section 7 or Section 10 of the Federal Endangered Species Act (FESA). Similarly, projects that impact CTS also require incidental taking authority from the CDFG. Under Section 2080 of CESA an incidental take permit may be authorized by CDFG for proposed projects that impact the CTS. An alternative is available that can significantly shorten the time frame necessary to acquire incidental taking authority pursuant to the CESA. Provided the USFWS has already authorized a federal incidental take permit for a proposed project that impacts CTS, CDFG can conduct a "consistency determination" pursuant to Section 2080.1 of the CESA and make a finding that the federal incidental take permit is consistent with CDFG's interests in protecting the CTS. This consistency determination must be completed (accepted or denied) by CDFG within 30 days of

when a complete application for a consistency determination has been submitted to the appropriate department of the CDFG.

Finally, CTS is also a protected amphibian under Title 14 of the California Code of Regulations (CCR 41) (1996), which provides that CTS may only be taken or possessed (that is, kept in captivity) under a special permit issued by the CDFG pursuant to sections 650 and 670.7 of these regulations, or Section 2081 of the Fish and Game Code.

6.3.1.2 CTS HABITAT REQUIREMENTS

CTS occur in grasslands and open oak woodlands that provide suitable aestivation 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. CTS may migrate up to 0.6-mile or further from their underground refugia to breeding ponds (personal data; Monk & Lynch 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. Storm events that are continuous or of sufficient intensity to raise the ground water table to near the surface, or that otherwise causes subterranean burrow flooding results in larger storm event driven movements of CTS from their refugia to breeding pools (G. Monk personal observations). This incentive to leave subterranean refugia en masse has been observed by G. Monk in Springtown, east Alameda County in December 1997 and in Sonoma County in December 2009. Typically, for larger movements of CTS to occur, nighttime temperatures also must be above 48° F (G. Monk and S. Lynch pers. observations).

During the spring, summer, and fall months, most known populations of the CTS predominately use California ground squirrel (*Spermophilus beechyi*) burrows as aestivation habitat (G. Monk personal observation). In Sonoma County where California ground squirrel populations are scarce to non-existent, subterranean refugia likely include Botta's pocket gopher (*Thomomys bottae*) burrows, deep fissures in desiccated clay soils, and debris piles (e.g., downed wood, rock piles). Currently the only common, truly fossorial (i.e., those animals with a life cycle that is predominately lived underground) rodent in the range of the CTS in Sonoma County is Botta's pocket gopher. These rodents typically only open their burrows to feed, closing their burrows shortly after consuming available suitable forage. In most instances, pocket gophers will feed from below ground, pulling tuberous vegetation down into their burrows for consumption. Sometimes at night they will leave their burrows traveling only a few feet to graze on the above ground forage of non-tuberous plants. The pocket gopher's behavior of meticulously closing burrows, especially in times of inclement weather when storm events potentially can cause in-burrow flooding, do not leave CTS many opportunities to use their burrows. Since most CTS migrate at night during large storm events to and from their breeding ponds, the likelihood of CTS being able to readily exit or re-enter open gopher burrows in storm events is greatly diminished since this is naturally a time when pocket gophers have their burrows closed. For this

reason, the importance of the relationship between the Sonoma County "distinct population segment" of the CTS and the Botta's pocket gopher is likely to be far less significant than the relationship of the CTS to the California ground squirrel in other parts of the CTS' range since this ground squirrel always maintains its burrows to remain open.

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 ¾ 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. G. Monk and S. Lynch observed CTS breeding in large, still ditches in Fremont, California. Similarly, in 2001/2002, Mr. D. Wooten observed CTS breeding in a roadside ditch in Cotati, California (D. Wooten, formerly of USFWS, pers. comm. w/ Mr. G. Monk). 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 (G. Monk and S. Lynch, pers. observations). Similarly, streams and/or ditches that support predators of CTS or their eggs and larvae such as fish, bullfrogs (*Rana catesbeiana*), red swamp crayfish (*Procambarus clarkii*), or signal crayfish (*Pacifastacus leniusculus*), almost never constitute suitable breeding habitat.

In most of the CTS' range, 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. In dry years, seasonal wetlands may dry too early to allow enough time for CTS larvae to successfully metamorphose. Under such circumstances, desiccated CTS larvae can be 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. In Cotati, Mr. Monk observed drying pool predation by red-sided garter snakes (*Thamnophis sirtalis infernalis*) and ducks (various spp.). In the South Bay east of Fremont, Mr. Monk observed CTS larval predation in drying pools by wild pigs (*Sus scrofa*) and raccoons (*Procyon lotor*). However, in years exhibiting wet springs, these same drier (shallower) pools can remain hydrated long enough through continual rewetting to allow CTS larvae ample time to successfully metamorphose.

6.3.1.3 CTS RECORDS IN THE VICINITY AND LARVAL SURVEYS ON THE PROJECT SITE

The project site is within the boundaries of USFWS' designated Critical Habitat of the Sonoma County DPS of California tiger salamanders (Unit 1 - Santa Rosa Plain). Figure 6 shows that there are 20 reported occurrences of CTS within 2 miles of the project site. Six separate breeding areas are located within 1.5 miles of the project site; however, the closest breeding site (CNDDB Record No. 344) occurs north of Highway 12, a major geographic barrier to CTS movements. Mr. Monk and Mr. C. Patterson detected and reported CTS at this record location in 1989 prior to the establishment of the North Wright Conservation Bank, but the record has somehow been expunged by the CNDDB. CNDDB Occurrence Number 344 is located approximately 0.15-mile west of the project site. At this location, CTS larvae were detected in a small breeding pond between 1993 and 2008.

The nearest recorded CTS occurrence to the project site that is not separated by physical barriers is approximately 2,000 feet east of the project site (CNDDB No. 237) in what was native grassland containing swales, but that is now partially developed (streets and sidewalks constructed). M&A detected CTS at this record location in the early 1990s. M&A also detected CTS approximately 2,000 feet south of the project site (CNDDB No. 236) in an area characterized by small vernal pools and oak savannah. M&A biologists also observed CTS at the old Santa Rosa Air Center (CNDDB record No. 652) which is the fourth closest record to the project site. M&A reported CTS here to CDFG in the early 1990s. CNDDB

During M&A's 2011 spring larval surveys, no CTS were found on the project site. The project site does not provide suitable breeding habitat for CTS; hence, no impacts to breeding or larval development habitat are expected from the proposed project. Accordingly, no salvage of CTS will be necessary prior to development of this project site.

No adult CTS occurrences have been documented within 500 feet of the project site. However, in accordance with the *Programmatic Biological Opinion of U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain* (USFWS 1998), for projects that are greater than 500 feet and within 2,200 feet of a known breeding site, CTS are required to be mitigated at a 2:1 ratio (i.e., for each acre of impact, compensation shall consist of 2 acres of mitigation credits). As there is no existing hardscape on the project site, the entire 0.98-acre project site is considered to provide upland over-summering habitat for CTS. Thus, it can be assumed that this habitat will be significantly impacted by development of the project site. Finally, the project site is located in an area of the Santa Rosa Plain that has been designated in the Final Santa Rosa Plain Conservation Strategy (USFWS 2005b) as "potential for presence of CTS and listed plants." Such a conclusion is consistent with M&A's assessment of the value of the proposed project site to CTS. Hence, impacts to the CTS from development of the project site are considered potentially significant pursuant to CEQA. The Impacts and Mitigation Measures that follow address this impact.

6.3.2 RED SHOULDERED HAWK

Red shouldered hawk (*Buteo lineatus*) is protected under the Migratory Bird Treaty Act (50 CFR 10.13) and under California Fish and Game Code Sections 3503, 3503.5, 3800, and 3513 which protect nesting raptors and their eggs/young. This medium-sized raptor prefers the largest trees in a particular area for nest construction. Blue gum eucalyptus (*Eucalyptus globulus*) trees have become favorite nesting trees for this species in California. A stick nest is constructed and usually two to four eggs are laid in the spring. Incubation lasts about 27 days. Usually two or three nests are built over a several year period by a nesting pair and then are reused year after year. Prey consists of reptiles and small rodents.

The project site provides suitable nesting and foraging habitat for red shouldered hawk. Mature elm, pine, mayten and valley oak trees provide suitable nesting habitat for this species. Hence, until nesting surveys are conducted that confirm or negate this species' presence on the project site impacts to nesting red shouldered hawks from the proposed project are considered potentially significant pursuant to CEQA. Preconstruction nesting surveys will be conducted before tree removal and earth-moving activities commence on the project site. If nesting red shouldered

hawks are found on or adjacent to the project site, a buffer should be established until the young have fledged. The Impacts and Mitigation Measures that follow address these impacts.

6.3.3 RED-TAILED HAWK

The red-tailed hawk (*Buteo jamaicensis*) is protected under the Migratory Bird Treaty Act (50 CFR 10.13) and under California Fish and Game Code §3503.5, 3800, and 3513 which protect nesting raptors and their eggs/young. This raptor species has an extremely wide tolerance for habitat variation, which can be attributed to its very broad spectrum of prey (Johnsgard 1990). Some clear habitat preferences do exist, however, and have been analyzed by a variety of studies. Habitat preferences in the winter for both sexes are oriented toward upland pasture, grassland, and hardwood habitats, with females also using lowland hardwoods and males using marsh–shrub communities. In the spring, females continue to use mainly upland and lowland hardwoods, probably as a reflection of their orientation toward a nest site. M&A has observed red-tailed hawks nesting in a variety of tree species including eucalyptus, coast live oak, and valley oak trees.

The project site's mature ornamental trees provide suitable nesting habitat for red-tailed hawks. The ruderal areas and non-native grassland on the project site provide suitable foraging habitat. Hence, until nesting surveys are conducted that confirms or negates this species' presence; impacts to this hawk from the proposed project would be considered potentially significant pursuant to CEQA. Preconstruction nesting surveys will be conducted before tree removal and earth-moving activities commence on the project site. If nesting red-tailed hawks are found on or adjacent to the project site, a buffer should be established until the young have fledged. The Impacts and Mitigation Measures that follow address these impacts.

6.3.4 WHITE-TAILED KITE

The white-tailed kite (*Elanus caeruleus*) is fully protected under the California Fish and Game Code. Fully protected birds may not be "taken" or possessed (i.e., kept in captivity) at any time (§3511). 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 mature ornamental trees and valley oaks on the project site provide suitable nesting habitat for white-tailed kites. The ruderal areas and non-native grassland on the project site provides suitable foraging habitat. Hence, until nesting surveys are conducted that confirms or negates this species' presence; impacts to this hawk from the proposed project would be considered potentially significant pursuant to CEQA. Preconstruction nesting surveys will be conducted

before tree removal and earth-moving activities commence on the project site. If nesting white-tailed kites are found on or adjacent to the project site, a buffer should be established until the young have fledged. The Impacts and Mitigation Measures that follow address these impacts.

7. 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 its pertinence to the proposed development.

7.1 Federal Endangered Species Act

The Federal Endangered Species Act (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.

In the case of salt water fish and other marine organisms, the requirements of FESA are enforced by the National Marine Fisheries Service (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 U.S. Fish and Wildlife Service 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 applies only to actions taken by federal agencies, or actions by private parties that require federal agency permits, approval, or funding (for example, a private landowner applying to the Corps for a permit). Section 7's consultation process is triggered by a determination of the "action agency" — i.e., the federal agency that is carrying out, funding, or approving a project — that the project "may affect" a listed species or critical habitat. If an action is likely to adversely affect a listed species or designated critical habitat, formal consultation with the USFWS is required. As part of the formal consultation, the USFWS prepares a Biological Opinion assessing whether the proposed action is likely to result in jeopardy to a listed species or adversely modify designated critical habitat. If the USFWS finds "no jeopardy" or adverse modification, it provides an incidental take permit which allows for the taking of a limited number of listed species or critical habitat.

Federal actions include permitting, funding, and entitlements for both federal projects, as well as private projects facilitated by federal actions (for example, a private landowner applying to the Corps for a permit). As an example, if a federally listed endangered species is present in "waters of the United States" on a project site, prior to authorizing impacts to "waters of the United States," the U.S. Army Corps of Engineers (who administers the Clean Water Act) would be required to initiate "formal consultation" with USFWS pursuant to Section 7 of FESA. As part of the formal consultation, the USFWS would then be required to prepare a Biological Opinion based on a review and analysis of the project applicant's avoidance and mitigation plan. The Biological Opinion will either state that the project will or will not result in "take" or threaten the continued existence of the species (not just that population). If an endangered species could be harmed by a proposed project, USFWS has to be in complete concurrence with the proposed avoidance and mitigation plan. If USFWS is not in complete concurrence with the mitigation plan, they will submit a Biological Opinion to the Corps containing a "jeopardy decision" and state that a Corps' permit should not be issued for the pending project. The applicant would then

have an opportunity to submit a revised mitigation plan that provides greater protection for the species.

For non-federal entities, Section 10 provides the mechanism for obtaining take authorization. Under Section 10 of FESA, the applicant for an "incidental take permit" is required to submit a "conservation plan" to USFWS or NMFS that specifies, among other things, the impacts that are likely to result from the taking, and the measures the permit 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 USFWS. Section 10(a)(2)(B) of FESA provides statutory criteria that must be satisfied before an incidental take permit can be issued.

7.1.1 RESPONSIBLE AGENCY

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

7.1.2 APPLICABILITY TO THE PROPOSED PROJECT

The project site does not provide fisheries habitat; hence, there would be no impacts to federally listed fish species. Appropriately timed surveys were conducted for special-status plants and animals known to occur in similar habitats to those found on the project site. No federally listed plants or animals were identified onsite. The California tiger salamander is the only federally listed animal species with a potential for occurring on the project site. Spring larval surveys for CTS were completed to determine if there are aquatic habitats on the project site where CTS could be breeding; no larval CTS were identified during these surveys. However, in accordance with the *Programmatic Biological Opinion of U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain* (USFWS 1998), for projects that are greater than 500 feet and within 2,200 feet of a known breeding site (the project site qualifies), CTS are required to be mitigated at a 2:1 ratio (i.e., for each acre of impact, compensation shall consist of 2 acres of mitigation credits). As there is no existing hardscape on the project site, the entire 0.98-acre project site is considered to provide upland aestivation habitat for CTS. Thus, it can be assumed that this habitat will be significantly impacted by project site development.

On September 14, 2011, M&A's principal biologist, Mr. Geoff Monk, met with Mr. Vincent Griego of the USFWS and Ms. Stephanie Buss of the CDFG in Sacramento at the USFWS' Endangered Species Office. At this meeting, Mr. Griego and Ms. Buss stated that the proposed development plan for the 0.98-acre parcel was acceptable provided the applicant purchased mitigation credits from an approved USFWS/CDFG compensation bank for impacts to CTS, state and federally listed pants, and wetlands.

Thus, based on this meeting and in accordance with the *Programmatic Biological Opinion of U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain* (Programmatic BO), the applicant will mitigate impacts to 0.98-acre of CTS habitat with the purchase of 1.96 acres of mitigation

credits from a USFWS-approved mitigation bank. To meet this mitigation requirement, the applicant has agreed to purchase 0.33-acre of combined Sebastopol meadowfoam and CTS mitigation credit from the Swift/Turner Conservation Bank. The remaining 1.63 acres of CTS mitigation credits have been purchased from Hale Wetland Mitigation Bank and the Hazel Mitigation Bank. An agreement with the Hale and Hazel Mitigation Banks and the Swift/Turner Conservation Bank to purchase these mitigation credits was signed by the Applicant on March 12, 2012.

Finally, a Biological Assessment (BA) was submitted to the Corps concurrently with the Preconstruction Notice (that is, a permit application) so that this agency may initiate formal consultation with the USFWS in regards to federally listed plant species and CTS. On June 1, 2012, the Corps initiated formal consultation with the USFWS pursuant to Section 7 of FESA. The Corps permit is pending while the USFWS prepares a Biological Opinion for the project. Please see the Impacts and Mitigation Measures section of this report for additional details.

7.2 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.).

7.2.1 Applicability to Proposed Project

Red-tailed hawk, red shouldered hawk, and white-tailed kite could nest on the project site although none were observed by M&A's Wildlife Biologist during the 2010 and 2011 field surveys. These raptors are protected pursuant to the Migratory Bird Treaty Act. Also, the passerine birds (perching birds) that could occur on the site are also protected pursuant to this 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. Since "take" is the issue (which means to kill or harm), it is expected that most birds will fly out of harm's way. However, nests that have eggs or nestlings cannot maneuver out of harm's way. Thus, the primary issue is that a proposed project can harm nesting birds. To comply with the Migratory Bird Treaty Act, all active nest sites would have to be avoided while such birds were nesting. Upon completion of nesting, the project could commence as otherwise planned. Please review specific requirements for avoidance of nest sites for potentially occurring species in the Impacts and Mitigations Section below. Preconstruction nesting surveys for nesting birds should be conducted prior to breaking ground for the project if it would occur between February 1st and September 31st.

7.3 State Endangered Species Act

7.3.1 Section 2081 of the State Endangered Species Act

In 1984, the state legislated the California Endangered Species Act (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), CDFG considerations pursuant to CESA are limited to those actions that would result in the direct take of a listed species.

If CDFG determines that a proposed project could impact a State listed threatened or endangered species, CDFG 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 CDFG and/or USFWS (if it is a Federal 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 Federal listed species). CDFG 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 habitat conservation plan (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 CDFG 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 federal Endangered Species Act, 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.

In September 1997, Assembly Bill 21 (Fish and Game Code §2080.1) was passed. This bill allows an applicant who has obtained a "non-jeopardy" federal Biological Opinion pursuant to

Section 7, or who has received a federal 10(a) permit (federal incidental take permit), to submit the federal opinion or permit to CDFG for a determination as to whether the federal document is "consistent" with CESA. If after 30 days CDFG 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 federal Biological Opinion, then no further permit or consultation is required under CESA for the project. However, if CDFG 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 permit under Section 2081(b). The process provided in Fish and Game Code §2080.1 (Assembly Bill 21) may be of use when the incidental take would occur to species that are listed under both the federal and state endangered species acts. Assembly Bill 21 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.

7.3.2 Applicability to Proposed Project

The project site does not provide fisheries habitat; hence, there would be no impacts to state listed fish species. Appropriately timed surveys were conducted for state listed plants known to occur in similar habitats to those found on the project site. Larval surveys for CTS were conducted in the spring of 2011. No state listed plants or animals were identified onsite.

On September 14, 2011, M&A's principal biologist, Mr. Geoff Monk, met with Mr. Vincent Griego of the USFWS and Ms. Stephanie Buss of the CDFG at the USFWS' Endangered Species Office. At this meeting, Mr. Griego and Ms. Buss stated that the proposed development plan for the 0.98-acre parcel was acceptable provided the applicant purchased mitigation credits from an approved USFWS/CDFG compensation bank for impacts to California tiger salamander, rare pants, and wetlands. Thus, based on this meeting and in accordance with the *Programmatic Biological Opinion of U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain* (Programmatic BO), the applicant will mitigate impacts to 0.98-acre of CTS habitat with the purchase of 1.96 acres of mitigation credits from a USFWS-approved mitigation bank.

Further detail is in the "Impacts and Mitigation" section below.

7.4 Applicable CEQA Regulations

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 the 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 to that species despite its legal status or lack thereof.

7.4.1 Applicability to Proposed Project

This document addresses impacts to species that would be defined as endangered or rare pursuant to Section 15380 of the CEQA. This document is suitable for use by the CEQA lead agency (in this case the City of Santa Rosa) for preparation of any CEQA review document prepared for the proposed project. This report has been prepared as a Biology Section that is suitable for incorporation into an Initial Study or the biology section of an Environmental Impact Report.

7.5 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 California Fish and Game Code (§3503.5). Additionally, "fully protected" birds, such as the white-tailed kite (*Elanus leucurus*) and golden eagle (*Aquila chrysaetos*), are protected under California Fish and Game Code (§3511). "Fully protected" birds may not be taken or possessed (that is, kept in captivity) at any time.

7.5.1 Applicability to the Project

Raptors that could nest on the project site and have their nesting disturbed by the project include red-tailed hawk, red shouldered hawk, and white-tailed kite. Although no raptors were observed nesting on the project site during surveys conducted by M&A's Wildlife Biologist during field surveys in 2010 and 2011, raptors are mobile animals and can change their nesting location from year to year. Thus, preconstruction surveys would have to be conducted for these species to ensure that there is no direct take of these 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. More specifics on the size of buffers are provided in the "Impacts and Mitigations" section.

7.6 Protected Amphibians

Under Title 14 of the California Code of Regulations (CCR 14, Division 1, Subdivision 1, Chapter 5, §41. Protected Amphibians), protected amphibians, such as the California tiger salamander may only be taken under special permit from California Department of Fish and Game issued pursuant to Sections 650 and 670.7 of these regulations.

7.6.1 APPLICABILITY TO THE PROJECT

The applicant is "assuming presence" of CTS and will mitigate accordingly. Larval surveys for the California tiger salamander were nonetheless conducted on the project site to determine if CTS would need to be "salvaged" prior to development of the project site. M&A did not find CTS eggs or larvae on the project site and further determined that the wetlands on the project site be unlikely to support breeding CTS.

In accordance with the *Programmatic Biological Opinion of U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain* (USFWS 1998), for projects that are greater than 500 feet and within 2,200 feet of a known breeding site (the project site qualifies), CTS are required to be mitigated at a 2:1 ratio (i.e., for each acre of impact, compensation shall consist of 2 acres of mitigation credits). As there is no existing hardscape on the project site, the entire 0.98-acre project site is considered to provide upland aestivation habitat for CTS. Thus, it can be assumed that this habitat will be significantly impacted by project site development. This impact can be mitigated to a less than significant level pursuant to CEQA. Please see the Impacts and Mitigations Section of this report for details.

7.7 City of Santa Rosa Tree Ordinance

The Santa Rosa City Code, Chapter 17.24, has three articles that pertain to the protection of trees on the project site and the proposed development. These three articles, and their applicability to the project site are provided below.

7.7.1.1 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 (*Quercus lobata*)	6
coast live oak (*Quercus agrifolia*)	18
black oak (*Quercus kelloggii*)	18
Oregon oak (*Quercus garryana*)	18
Canyon oak (*Quercus chrysolepis*)	18
Blue oak (*Quercus douglasii*)	6

Interior live oak (*Quercus wislizenii*)	18
Coast redwood (*Sequoia sempervirens*)	24
Bay (*Umbellularia californica*)	24
Madrone (*Arbutus menziesii*)	12
Douglas's fir (*Pseudotsuga menziesii*)	24
Red alder (*Alnus rubra*)	18
White alder (*Alnus rhombifolia*)	18
Big leaf maple (*Acer macrophyllum*)	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.

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.

7.7.1.1 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.

(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 service 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.

7.7.1.1 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.
(b) 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.

7.7.2 APPLICABILITY TO THE PROPOSED PROJECT

M&A reviewed the September 12, 2012 Conceptual Landscape Plan (MacNair Landscape Architecture 2012). Based on the current site plan (September 23, 2012) we determined that 4 "protected trees" would need to be removed to accommodate the proposed grading plan. For purposes of this analysis, a "protected tree" is: "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." Removal of protected trees on this project site will require a Category II permit from the City of Santa Rosa and the planting of replacement trees. *Please see the discussion on Article IV, Category II permits, above, to determine what information must be provided to the City of Santa Rosa in order to obtain a Category II tree permit.* Three exempt trees and one dead tree will also be removed and do not require a permit or compensation mitigation. Please also see the "Impacts and Mitigations Section" of this report for details on tree removal and mitigation requirements to satisfy CEQA.

7.8 City of Santa Rosa General Plan

According to the City of Santa Rosa General Plan, Biological Resources and Waterways, Goals and Policies, the following measures have applicability to the proposed project:

> OSC-A-1: Cooperate with various public and private entities to create new public access trails to parks, open spaces, and drainage ways within the city, as well as to trail systems outside the UGB. Priorities for trail access outside of the UGB should include: the Joe Rodota Trail, Bay Area Ridge Trail, Santa Rosa Creek Trail, Laguna Trail, Roseland Creek Trail, Colgan Creek Trail and Paulin Creek Trail.
>
> OSC-D-1: Utilize existing regulations and procedures, including Subdivision Guidelines, Zoning, Design Review, and environmental law, to conserve wetlands and rare plants. Comply with the federal policy of no net loss of wetlands using mitigation measures such as:
>
> - Avoidance of sensitive habitat;
> - Clustered development;
> - Transfer of development rights; and/or
> - Compensatory mitigation, such as restoration or creation.
>
> OSC-D-2: Protect high quality wetlands and vernal pools from development or other activities as determined by the Vernal Pool Ecosystem Preservation Plan.
>
> OSC-H-1: Preserve trees and other vegetation, including wildflowers, both as individual specimens and as parts of larger plant communities.
>
> OSC-H-2: Preserve and regenerate native oak trees.
>
> OSC-H-4: Require incorporation of native plants into landscape plans for new development, where appropriate and feasible, especially in areas adjacent to open space areas or along waterways.

7.8.1 APPLICABILITY TO THE PROPOSED PROJECT

The proposed project is designed to incorporate the Joe Rodota Trail as per OSC-A-1, and its users by providing a bicycle and pedestrian linkage, as well as an easily accessible ±11,600 sq. ft. park/picnic area (Parcel 2). The park parcel is proposed to be dedicated to the city.

As per OSC-D-1, OSC-D-2 and OSC-H-1, the applicant is proposing to mitigate impacts to 0.22-acre (9,623 square feet) of Corps and RWQCB jurisdictional seasonal wetlands. Mitigation will be accomplished via purchase of mitigation credits from the Horn Avenue Mitigation Bank. Mitigation at a 2:1 ratio (i.e., for each tenth of an acre of impact, compensation shall consist of 2 tenths of an acre of mitigation credits) from a qualified mitigation bank is appropriate. Since mitigation credits must be purchased at a minimum of 0.05 acre increments, and since the project will impact 0.22-acre of seasonal wetland,

0.45-acre of mitigation credits shall be purchased from a qualified wetlands mitigation bank.

The 0.22-acre of seasonal wetland would be considered "suitable habitat" for listed vernal pool plant species and CTS under the USFWS Santa Rosa Plain Conservation Strategy. *Thus, the applicant shall mitigate impacts to 0.22-acre of seasonal wetland (presumed under the Conservation Strategy to be endangered plant and CTS habitat) by purchasing 0.33 acre of credit from a USFWS-approved mitigation bank (1.5:1 ratio).* An agreement with the Swift/Turner Conservation Bank to purchase 0.33-acre of Sebastopol meadowfoam mitigation credits was signed by the Applicant on March 12, 2012.

As per OSC-H-2 and OSC-H-4, native oaks will be preserved where feasible and all native oaks will be mitigated for with appropriate native oak species within the proposed landscape plan for the project site.

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

This section presents an overview of the criteria used by the U.S. Army Corps of Engineers, the California Regional Water Quality Control Board, the State Water Resources Control Board, and CDFG to determine those areas within a project area that would be subject to their regulation.

8.1 U.S. Army Corps of Engineers Jurisdiction and General Permitting

8.1.1 SECTION 404 OF THE CLEAN WATER ACT

Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (Corps) regulates the discharge 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 material 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).

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 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.

It should be noted that the extent of the Corps jurisdiction pursuant to Section 404 of the Clean Water Act was recently modified. In Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, the U.S. Supreme Court [148 L. Ed. 2d 576 (2001) (SWANCC)] ruled that the Corps exceeded its authority under the Clean Water Act when it regulated discharges of fill material into "isolated" waters used as habitat by migratory birds. Accordingly, waters (including wetlands) that are not connected hydrologically to navigable waters are not subject to regulation by the Corps.

Another Supreme Court decision also significantly changes how the Corps defines waters of the United States. On June 19, 2006 the United States Supreme Court, in a "four-one-four" decision, addressed the extent of Clean Water Act jurisdiction over wetlands adjacent to tributaries of navigable waters. In two consolidated cases, *Rapanos v. United States* and *Carabell v. U.S. Army Corps of Engineers*, a five-Justice majority of the Court remanded the case to the Sixth circuit for further consideration. The Court was unable to produce a majority vote in favor of any one jurisdictional standard for the Sixth Circuit to apply (or for the regulated community to follow). Instead, Justice Scalia authored a plurality opinion that would significantly narrow the reach of federal wetlands jurisdiction, while Justice Kennedy, concurring in the judgment only, concluded that the appropriate test for jurisdiction over wetlands was the presence of a "significant nexus" between wetlands and "navigable waters" in the traditional sense. The remaining four Justices, in a dissenting opinion by Justice Stevens, would have upheld the Corps of Engineers' assertion of jurisdiction and would have affirmed the Sixth Circuit's decision. When no opinion garners at least five votes, lower courts follow the concurrence that reached the result on the narrowest grounds. Here, that is Justice Kennedy's opinion. Unfortunately, Justice Kennedy did not provide specific guidance about the extent of federal jurisdiction over wetlands that are adjacent to tributaries of navigable waters.

Justice Kennedy concluded that the Clean Water Act applies only to those wetlands with a "significant nexus" to "navigable waters in the traditional sense." A significant nexus exists when a wetland, "either alone or in combination with similarly situated lands in the region, significantly affect[s] the chemical, physical, and biological integrity" of factually navigable waters. Under Supreme Court precedent, wetlands adjacent to navigable waters meet this test. For wetlands located near tributaries of navigable waters, however, each wetland demands a case-by-case jurisdictional inquiry. We know that a "mere hydrological connection" is not enough in all cases, and that "speculative or insubstantial" effects on water quality will not suffice to satisfy the test. [Preceding text excerpted from a newsletter prepared by Briscoe, Ivester, and Bazel LLP]. The Corps of Engineers and the Environmental Protection Agency jointly prepared an Instructional Guidebook to aid Corps field staff in completing the new "Approved Jurisdictional Determination Form," and is intended to be used as the U.S. Army Corps of Engineers Regulatory National Standard Operating Procedures for conducting an approved jurisdictional determination.

To remain in compliance with Section 404 of the Clean Water Act, project proponents and property owners (applicants) are required to acquire authorization from the Corps prior to discharging or otherwise impacting "waters of the United States". In many cases, the Corps must visit a proposed project area to confirm the extent of area falling under their jurisdiction (to conduct a "jurisdictional determination") prior to authorizing any permit for that project. Typically, at the time the jurisdictional determination is conducted, applicants (or their representative) will discuss the 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 "waters of the United States." The first alternative would be to use Nationwide Permit(s). The second alternative is to apply to the Corps for an Individual Permit (33 CFR Section 235.5(2)(b)). The application process for Individual Permits is extensive and includes a public review (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 Environmental Protect Agency (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 any proposed project there would not result in impacts to waters of the U.S., if 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 impacts are unavoidable.

Nationwide Permit(s) (NWP) are a type of general permit administered by the Corps and issued on a nationwide basis that authorize minor activities that affect Corps regulated waters. Under the NWP program, 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 27 general nationwide permit conditions, and all specific conditions pertaining to the NWP being used (as presented at 33 CFR Section 330). 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, 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).

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 United States). 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 recreation or enhancement of an equivalent amount of wetland that is impacted, in addition to preserving an equivalent amount of wetland. In some cases, the Corps allows "out-of-kind" mitigation if the compensation/mitigation has greater value than the impacted area. Finally, there are many Corps approved wetland mitigation banks where wetland mitigation credits can be purchased by applicants to meet their mitigation requirements. Mitigation banks have limited distribution and the Corps typically only allows their use when projects have limited impacts. If a project meets conditions of Nationwide Permits, and an Individual Permit is not required by the Corps, then typically the Corps allows use of wetland mitigation banks (if available) to meet its no net loss requirement and to otherwise mitigate the impacts to waters of the United States resulting from the proposed project.

8.1.2 Applicability to the Proposed Project

On March 16, 2010, M&A staff Mr. Geoff Monk and Ms. Isabelle de Geofroy conducted preliminary wetland delineation on the project site using the Corps' 1987 *Wetlands Delineation Manual* in conjunction with the regional supplement for the Arid West Region. On September 22, 2010, the Corps field verified the extent of their jurisdiction on the project site pursuant to Section 404 of the Clean Water Act. The Corps confirmed a total of 0.22-acre of waters of the U.S. on the project site. Waters of the U.S. on the project site consist of low-quality seasonal wetlands within a man-made ditch, two topographical depressions and a channel leading to a culvert on the southwestern corner of the project site. Construction of the proposed project will result in impacts to all Corps jurisdictional areas. In total, 0.22-acre (9,623 square feet) of waters of the U.S. would be impacted by the proposed project. The confirmed wetland delineation map is included in this report as Appendix B.

On February 17, 2011, M&A biologists Mr. Monk and Ms. de Geofroy met at RWQCB's North Coast office with Mrs. Stephen Bargsten of the RWQCB and Mr. Sahrye Cohen of the Corps to discuss the proposed project. Both Ms. Cohen and Mr. Bargsten agreed that impacts to waters of the U.S. and State (respectively) could be mitigated using a Corps and RWQCB approved wetland conservation bank. Both Ms. Cohen and Mr. Bargsten agreed that it made little sense to preserve wetland on this relatively small project site. On April 20, 2012, M&A submitted a Preconstruction Notice (PCN) to the Corps requesting authorization to use Nationwide Permit 39 for the proposed development project.

Since the project site is within the portion of the Santa Rosa Plain referred to in the Conservation Strategy as an area with "Potential for presence of CTS and Listed Plants," a Biological Assessment (BA) was submitted to the Corps concurrently with the PCN so that this agency may initiate consultation with the USFWS in regards to federally listed plant species and CTS. On June 1, 2012, the Corps initiated consultation with the USFWS pursuant to Section 7 of FESA. The PCN and Corps permit remain pending while the USFWS prepares a Biological Opinion (BO) for the project. By regulation, the USFWS has 135 days to complete the BO and deliver it to the Corps. The Corps must then incorporate conditions in the BO into its permit authorized for the project.

8.2 State Water Resources Control Board (SWRCB) / California Regional Water Quality Control Board (RWQCB)

8.2.1 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 United States, 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 or waiver 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 California Environmental Quality Act, the California Endangered Species Act, 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.

Additionally, if a proposed project would impact waters of the State, including wetlands, the project applicant must demonstrate that the project is unable to avoid these adverse impacts, or water quality certification will most likely be denied. Section 401 Certification may also be denied based on significant adverse impacts to waters of the United States/State, including wetlands. The RWQCB has also adopted the Corps' policy that there shall be "no net loss" of wetlands. Thus, prior to certifying water quality, the RWQCB will impose avoidance mitigation requirements on project proponents that impact waters of the State.

8.2.2 Applicability to the Proposed Project

On March 16, 2010, M&A staff Mr. Geoff Monk and Ms. Isabelle de Geofroy conducted a wetland delineation on the project site using the Corps' 1987 *Wetlands Delineation Manual* in conjunction with the regional supplement for the Arid West Region. On September 22, 2010, the Corps field verified the extent of their jurisdiction on the project site pursuant to Section 404 of the Clean Water Act. The Corps confirmed a total of 0.22-acre of waters of the U.S. on the project site. Typically the RWQCB accepts and uses the official Corps delineation map to determine the extent of waters of the State. In total, 0.22-acre (9,623 square feet) of waters of the United States and State would be impacted by the proposed project. The confirmed wetland delineation map is included in this report as Appendix B.

On February 17, 2011, M&A biologists Mr. Monk and Ms. de Geofroy met at RWQCB's North Coast office with Mrs. Stephen Bargsten of the RWQCB and Mr. Sahrye Cohen of the Corps to discuss the proposed project. Both Ms. Cohen and Mr. Bargsten agreed that impacts to waters of the U.S. and State (respectively) could be mitigated using a Corps and RWQCB approved wetland conservation bank. Both Ms. Cohen and Mr. Bargsten agreed that it made little sense to preserve wetland on this relatively small project site.

Any impacts to waters of the State would have to be mitigated to the satisfaction of the RWQCB prior to the time this resource agency would issue a permit for impacts to such features. The RWQCB requirements for issuance of a "401 Permit" typically parallel the Corps requirements for permitting impacts to Corps regulated areas pursuant to Section 404 of the Clean Water Act. Please refer to the Corps Applicability Section above for likely mitigation requirements for impacts to RWQCB regulated wetlands. Also, please refer to the applicability section of the Porter-Cologne Water Quality Control Act below for other applicable actions that may be imposed on the project by the RWQCB prior to the time any certification of water quality is authorized for the project.

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

8.2.4 APPLICABILITY TO PROPOSED PROJECT

On March 16, 2010, M&A staff Mr. Geoff Monk and Ms. Isabelle de Geofroy conducted a wetland delineation on the project site using the Corps' 1987 *Wetlands Delineation Manual* in conjunction with the regional supplement for the Arid West Region. On September 22, 2010, the Corps field verified the extent of their jurisdiction on the project site pursuant to Section 404 of the Clean Water Act. The Corps confirmed a total of 0.22-acre of waters of the U.S. on the project site. No isolated wetlands were identified or mapped by the Corps. The confirmed wetland delineation map is included in this report as Appendix B.

The Corps' mapped jurisdictional areas would be regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act. 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 Best Management Practices Plan (BMPs) are incorporated into the project implementation plans.

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 County of Sonoma, indicating that the proposed project has completed a review conducted 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.

Finally, it should be noted that any SWMP prepared to meet Sonoma County's Standard Urban Storm Water Mitigation Plan (SUSMP) guidelines, would also meet the RWQCB's SWMP requirements. For greater detail please review the SUSMP requirements presented below.

8.2.5 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

In 1972 the Clean Water Act was amended to state that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with an NPDES permit. The 1987 amendments to the Clean Water Act added Section 402(p) which establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES Program.

While federal regulations allow two permitting options for stormwater discharges (individual permits and General Permits), the SWRCB has elected to adopt only one statewide 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 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 Best Management Practices (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.

3. Perform inspections of all BMPs.

This General Permit is implemented and enforced by the nine California Regional Water Quality Control Boards (RWQCBs).

Types of Construction Activity Covered by the General Permit

Construction activity subject to this General Permit includes clearing, grading, and 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. Project proponents (landowners) should confirm with the local RWQCB whether or not a particular routine maintenance activity is subject to this General Permit.

8.2.6 2009 Changes to the NPDES Program and Use of the General Permit

[This section excerpted in part from Morrison Foerster Legal Updates and News September 2009, by Robert L. Falk and Corinne Fratini]. The California State Water Resources Control Board ("State Water Board") has adopted a new National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities ("Construction General Permit"). The new Construction General Permit which was issued pursuant to the federal Clean Water Act and is enforceable through citizens' suits, 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. Changes to use of the General Permit became effective on July 1, 2010.

The new Construction General Permit does not completely carry forward the former qualitative and self-selected compliance approach based on preparation of a SWPPP. Instead, developers and construction contractors must implement specific BMPs, achieve quantitatively-defined (i.e., numeric) pollutant-specific discharge standards, and conduct much more rigorous monitoring based on the project's projected risk level.

The State Water Board's new quantitative standards take a two-tiered approach, depending on the risk level associated with the site in question. Exceedance of a benchmark Numeric Action Level ("NAL") measured in terms of pH and turbidity (a measure related to both the amount of sediment in and the velocity of site runoff) triggers an additional obligation to implement

additional BMPs and corrective action to improve SWPPP performance. For medium- and high-risk sites, failure to meet more stringent numeric standards for pH and turbidity, known as Numeric Effluent Limitations ("NELs"), will also automatically result in a permit violation and be directly enforceable in administrative or, in the case of a citizens' group taking up the cause, judicial forums. New minimum BMPs include Active Treatment Systems, which may be necessary where traditional erosion and sediment controls do not effectively control accelerated erosion; where site constraints inhibit the ability to construct a correctly-sized sediment basin; where clay and/or highly erosive soils are present; or where the site has very steep or long slope lengths.

In addition, the new 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 Regional Water Board.

Finally, the new Construction General Permit requires electronic filing of all Permit Registration Documents, NOIs, SWPPPs, annual reports, Notices of Termination, and NAL/NEL Exceedance Reports. This information will be readily available to the Water Boards and citizen enforcers who can then determine whether to initiate enforcement actions—actions which can result in significant penalties and legal fees.

8.2.7 APPLICABILITY TO PROPOSED PROJECT

On September 2, 2009, the State Water Resources Control Board adopted Order No. 2009-0009-DWQ, which reissued the Construction General Permit for projects disturbing one or more acres of land surface, 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. Effective July 1, 2010, the requirements of this order replaced and superseded State Water Board Orders No. 99-08-DWQ.

The project engineer will be preparing a Stormwater Management Plan (SWMP) and a SWPPP for this project. These plans will be submitted to the SWRCB at the same time that Section 401 certification application will take place. Hence, the applicant will be provided coverage under the NPDES program by the RWQCB.

8.3 RWQCB Municipal Storm Water Permitting Program

The Municipal Storm Water Permitting Program regulates storm water discharges from municipal separate storm sewer systems (MS4s). MS4 permits were issued in two phases. Under Phase I, which started in 1990, the RWQCBs have adopted NPDES storm water permits for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people)

municipalities. Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. These permits are reissued as the permits expire.

As part of Phase II, the SWRCB adopted a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities, including non-traditional Small MS4s, which are governmental facilities such as military bases, public campuses, and prison and hospital complexes.

The MS4 permits require the discharger to develop and implement a Storm Water Management Plan/Program (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in Section 402(p) of the Clean Water Act. The management programs specify what best management practices (BMPs) will be used to address certain program areas. The program areas include public education and outreach; illicit discharge detection and elimination; construction and post-construction; and good housekeeping for municipal operations. In general, medium and large municipalities are required to conduct chemical monitoring, though small municipalities are not.

8.3.1 RWQCB PHASE II PROGRAM REQUIREMENTS

The federal Clean Water Act (CWA) provides that National Pollutant Discharge Elimination System (NPDES) permits for Municipal Separate Storm Sewer Systems (MS4) must require municipalities to reduce pollutants in their storm water discharges to the Maximum Extent Practicable (MEP) (CWA §402(p)(3)(B).) MS4 permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods." Under the Phase II Requirements implemented by the RWQCB, permittees that operate an MS4 that serves 50,000 people or more, or that serve an area of high growth (which is defined as more than 25% over 10 years), must comply with the Supplemental Provisions contained in Attachment 4 of the Small MS4 General Permit. *The City of Santa Rosa would be a MS4 permittee.*

Permittees must ensure that any new development or redevelopment projects implement a Post Construction Storm Water Management Plan (SWMP). The MEP standard involves applying best management practices (BMPs) that are effective in reducing the discharge of pollutants in storm water runoff. In discussing the MEP standard, the State Board has said the following: "There must be a serious attempt to comply, and practical solutions may not be lightly rejected. If, from the list of BMPs, a permittee chooses only a few of the least expensive methods, it is likely that MEP has not been met. On the other hand, if a permittee employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit to be derived, it would have met the standard.

It should be noted that the Small MS4 Permit and the General Construction Permit (NPDES Phase I requirements) are programmatically different. The Construction Site Storm Water Runoff Control Minimum Control Measure requires the municipality to develop and implement a program that provides local oversight of construction projects within the municipality to ensure that pollutants being discharged from construction sites into the MS4 are reduced. The program must include adopting an ordinance requiring storm water quality controls at construction sites, reviewing site plans, receiving comments from the public regarding the discharge of pollutants

from construction sites, inspecting construction sites to ensure that pollutants are not being discharged in storm water runoff, and taking enforcement when necessary. Typically, such measures are detailed in SWMPs prepared by the project proponent. In contrast, the General Construction Permit requires projects to have a site specific SWPPP and to implement BMPs specific to activities at the construction site. The General Construction Permit directly regulates landowners engaged in construction involving land disturbance of one acre or more.

8.3.2 APPLICABILITY TO THE PROPOSED PROJECT

According to the RWQCB records, the City of Santa Rosa is an MS4 permittee and thus is supposed to enforce development of a project specific SWPPP and a SWMP that incorporate both pre- and post-construction BMPs (respectively). As an MS4 permittee the City of Santa Rosa is required to enforce development of a SWMP containing pre- and post-construction BMPs. Currently this is accomplished by applicants through compliance with the Standard Urban Storm Water Mitigation Plan (SUSMP) that is discussed in detail below. Accordingly, the project civil engineer has prepared a SWMP that can be reviewed by the City of Santa Rosa for formulation of the conditions of project approval.

9. STANDARD URBAN STORM WATER MITIGATION PLAN (SUSMP),

To comply with their MS4 permit, the City of Santa Rosa, Sonoma Water Agency and County prepared *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 were released by Sonoma County* on June 3, 2005. The SUSMP guidelines were developed to assist project sponsors and municipal staff to implement the Santa Rosa Area requirements that were adopted by the North Coast Regional Water Quality Control Board in June 2003. Since the SUSMP requirements apply to both privately sponsored projects and public capital improvement projects, these Guidelines are required to be used by development project applicants, municipal development project review staff, and municipal staff responsible for capital improvement projects. The SUSMP requirements are part of the Storm Water Management Plan that has become an enforceable part of the reissued municipal storm water National Pollutant Discharge Elimination System (NPDES) permit for the City of Santa Rosa, the County of Sonoma, and the Sonoma County Water Agency. The SUSMP guidelines also have been created to comply with the municipal storm water NPDES permit requirement for the City of Santa Rosa and County of Sonoma to develop a SUSMP Guidance Document.

The SUSMP goals for new and redevelopment projects are to manage, as close to the point of origin as possible, 1) storm water quality, 2) storm water quantity, and 3) to conserve natural areas of the development site. These three goals are described further below. It should be noted that the concept of "maximum extent practical" (MEP) applies to each of the goals. The MEP requirement is a technology based standard established by Congress in the Clean Water Act U.S.C. S 1342 (p)(3)(B)(iii) that municipal dischargers of storm water must meet. To achieve the maximum extent practicable standard, municipalities must employ whatever Best Management Practices (BMPs) are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the maximum extent practicable means choosing effective BMPs, and rejecting applicable BMPs only where

other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive.

The SUSMP goals for new and redevelopment projects are as follows:

Storm Water Quality. The first goal is to prevent pollutants generated at development and redevelopment projects from reaching storm drains. Projects covered by the SUSMP must be designed to minimize the introduction of pollutants.

Storm Water Quantity. The second goal is to prevent increases in storm water runoff from the two-year 24 hour storm event for Sonoma County. SUSMP projects should incorporate best management practices to limit the post-development runoff to pre-development conditions to the MEP. Best management practices are methods used to minimize pollutants in storm water and the quantity of runoff. One of the objectives of these guidelines is to provide more specific information about how MEP will be achieved.

Conserve Natural Areas. The third goal is to conserve natural areas of a development site. This goal supports the other two goals by preserving areas where storm water runoff can be purified naturally by infiltration into the soil and flow over vegetated areas. SUSMP projects should strive to maximize the amount of land left in a natural, undisturbed condition, preserve riparian areas and wetlands, limit clearing of native vegetation, and maximize trees and vegetation.

This SUSMP applies to applicable projects that require a discretionary permit, including any ministerial permits that are based on the discretionary permit. Source controls will be recommended for all discretionary projects.

Projects that must comply with the SUSMP include:

a) Development projects that create one acre (43,560 square feet) or more of new impervious surface. This category includes development of any type on public or private land, which falls under the planning and building authority of Sonoma County or City of Santa Rosa, where one acre or more of new impervious surface, collectively over the entire project site, will be created.
b) Streets, roads, highways and freeways that create one acre (43,560 square feet) or more of new impervious surface. This category includes any newly constructed impervious surface used for the transportation of pedestrians, bicycles, and motorized vehicles.
c) Redevelopment projects that are located on an already developed site and result in the addition of and/or reconstruction of one acre (43,560 square feet) or more of new impervious surface. Only the additional and/or reconstructed portion(s) of the site must be included in treatment design. Excluded from this category are interior remodels and routine maintenance or repair, including roof or exterior surface replacement and resurfacing.
d) Development and redevelopment projects located directly adjacent to a natural waterway, modified natural waterway, or constructed channel or that require a new storm drain outfall to such waterway, regardless of project size or impervious surface. This requirement is intended to protect environmentally sensitive areas. For redevelopment

projects, excluded from this category are interior remodels and routine maintenance or repair, including roof or exterior surface replacement and resurfacing.

Regarding phased projects, new development or redevelopment activity that is part of a larger common plan of development that results in less than one acre of impervious surface must comply with SUSMP requirements. For example, if 50% of a subdivision is constructed and results in 0.9 acre of impervious surface and the remaining 50% of the subdivision is to be developed at a future date, the property owner must comply with SUSMP requirements.

9.1 Source and Treatment Control Requirements

Source control and treatment control BMPs are intended to reduce runoff and keep pollutants out of storm water throughout the life of the project. They may be described as post-construction BMPs or "post-development" control measures. Post-construction BMPs differ from construction BMPs, which are used during the construction phase to prevent erosion and keep construction-related pollutants from reaching storm water.

The SUSMP recognizes two types of post-development BMPs for storm water pollution control – source controls and treatment controls. Source controls include BMPs that are designed to prevent pollutants from reaching storm water runoff and minimize site runoff. Source controls include a large variety of BMPs that range from minimizing the amount of impervious surface used at a project site to specific pollution prevention BMPs such as providing a roof over waste storage areas. The municipal storm water NPDES permit characterizes source control as the first line of defense at a project site and storm water treatment as a backup or additional line of defense. Source controls will be recommended for all discretionary projects.

Storm water treatment controls are engineered systems that are designed to remove pollutants from storm water. The SUSMP and NPDES permit have specific hydraulic design criteria for sizing storm water treatment controls to assure that an optimum amount of storm water receives treatment. Examples of storm water treatment controls include vegetated swales, extended detention basins, and bioretention areas. These are described in more detail in Chapter 4.

Source and treatment controls require long-term maintenance to continue to function effectively and avoid the creation of nuisance conditions. The SUSMP requires the project applicant to provide to the City or County a signed statement accepting responsibility for maintenance until the responsibility is legally transferred. The SUSMP further requires property owners to conduct maintenance inspection of all source and treatment control BMPs at least once a year or as specified by the designer or manufacturer.

9.2 Post-Construction Sediment and Erosion Control

Sediment is an important pollutant of concern in the North Coast Region. During construction sediment and erosion control BMPs must be implemented in accordance with the Statewide Construction Activity NPDES General Permit and the City of Santa Rosa or County of Sonoma grading permit programs. The design of projects must also consider potential sedimentation and erosion issues during long-term project operations and incorporate appropriate sediment and erosion controls in the project design.

Source Controls includes the need to select and maintain vegetation in landscaped pervious areas to prevent runoff from contacting bare earth and conveying sediment into the storm drain system. Similarly, pervious paving materials must also be selected, designed and maintained to avoid sedimentation and erosion.

9.3 Enforceability

The Santa Rosa Area municipal storm water NPDES permit requires the City of Santa Rosa, County of Sonoma and Sonoma County Water Agency to implement legal authority to control pollutant discharges to their respective storm drain systems. At a minimum, this legal authority empowers the agencies to use enforcement mechanisms, including monetary fines, to require compliance by private entities within their jurisdictions. In the event that a project applicant fails to comply with the SUSMP requirements, the City or County may determine that it is necessary to undertake enforcement actions, which may include a monetary fine.

9.4 Applicability to the Proposed Project

The Project Engineer will be preparing a Stormwater Management Plan for the proposed project and this will be submitted to the City of Santa Rosa (and the RWQCB). Thus, the project will meet the requirements of SUSMP (and the NPDES).

10. CALIFORNIA DEPARTMENT OF FISH AND GAME PROTECTIONS

10.1 Section 1602 of California Fish and Game Code

Pursuant to Section 1602 of the California Fish and Game Code, California Department of Fish and Game (CDFG) regulates activities that divert, obstruct, or alter stream flow, or substantially modify the bed, channel, or bank of a stream which CDFG typically considers to include its riparian vegetation. Any proposed activity in a natural stream channel that would substantially adversely affect an existing fish and/or wildlife resource, would require entering into a Streambed Alteration Agreement (SBAA) with CDFG prior to commencing with work in the stream. However, prior to authorizing such permits, CDFG 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.

10.1.1 Applicability to Proposed Project

Virtually the entire project site drains during storm events via percolation into the soil and into a man-made ditch that begins on the eastern central portion of the project site and drains to a City Storm Drain inlet on the western boundary of the project site alongside North Wright Avenue. The man-made ditch is a minor feature, does not have a defined bed, bank or channel, and only conveys water away from existing buildings to outlets off-site; hence, it would be most unlikely to be regulated by CDFG pursuant to 1602 of the Fish and Game Code, which typically concerns natural tributaries or man-made features with direct connectivity to tributaries.

11. 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 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.

11.1.1 APPLICABILITY TO THE PROPOSED PROJECT

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

12. IMPACT ANALYSIS

In this section we discuss potential impacts to sensitive biological resources including special-status animal species and waters of the United States and/or State. We follow each impact with a mitigation prescription that when implemented would reduce impacts to the greatest extent possible. This impact analysis is based on a Conceptual Site Plan prepared on April 15, 2010 by Tierny/Figueiredo Architects, last updated on September 23, 2012 (Appendix A).

12.1 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 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.

12.1.1 THRESHOLDS OF SIGNIFICANCE

12.1.1.1 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 California Department of Fish and Game or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service.

- 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.

12.1.1.2 Waters of the United States and State.

Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the U.S. Army Corps of Engineers (Corps) regulates the discharge of dredged or fill material into waters of the United States, 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.

12.1.1.3 Stream Channels

Pursuant to Section 1602 of the California Fish and Game Code, CDFG regulates activities that divert, obstruct, or alter stream flow, or substantially modify the bed, channel, or bank of a stream which CDFG 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.

13. IMPACT ASSESSMENT AND PROPOSED MITIGATION

13.1 Impact 1. Trees (Significant)

According to the City of Santa Rosa's Tree Ordinance, a "protected tree" situated within the City is defined as: "any species with a diameter of four-inches or more" (Section 17.24.020 under Article II and Section 17.24.030 under Article III). Four protected trees will be removed for the proposed project. According to OSC-H-2 of the Santa Rosa General Plan, native oak trees should be preserved and helped regenerate. One of these protected trees to be removed is a native valley oak. Hence, based on the above regulations, removal of native and protected trees onsite without compensatory mitigation would constitute a significant impact pursuant to CEQA. This impact could be mitigated to a level considered less than significant.

13.2 Mitigation Measure 1 - Trees

According to the Site Development Plan (September 23, 2012) and the Conceptual Landscape Plan (MacNair Landscape Architecture 2012), M&A determined that 4 "protected trees", according to the tree ordinance definitions, would need to be removed to accommodate the proposed development. These four protected trees are: 1 Chinese elm, 1 valley oak, 1 Oregon ash and 1 mayten with diameters equaling 58 inches, 28 inches, 9.5 inches and 7.5 inches, respectively. Implementation of the following mitigation would reduce impacts to protected trees to a level considered less than significant.

To offset impacts resulting from the removal of protected trees, replacement trees shall be planted. Mitigation required will be in accordance with the City's tree ordinance which requires for each six inches or fraction thereof of the diameter of a tree which was approved for removal, two trees of the same genus and species or another appropriate species as approved by the Planning Director, each of a minimum 15-gallon container size, shall be planted on site. For example, removal of an 11-inch diameter tree shall require planting 4 replacement trees. To offset the removal of 4 protected trees, 38 replacement trees of a 15-gallon container size would be required per the ordinance. However, there is a clause in the tree ordinance which stipulates that alternate replacement planting is allowed with prior approval from the City's Planning Director. Thus, the applicant is proposing to plant 22 replacement trees of site-appropriate species of a larger size (24 inch box) to mitigate for this impact due to the small size of the project site and the appropriate landscape areas (as per email communication from Don MacNair at MacNair Landscape Architecture to Christy Owens at Monk & Associates and shown in the Conceptual Landscape Plan in Appendix C). There will be 9 appropriate replacement oaks and 13 appropriate replacement ornamentals. The replacement trees' health shall be monitored annually for five years by a qualified biologist or arborist. Annual monitoring reports shall be submitted to the City of Santa Rosa's Planning Department.

A tree preservation and management plan shall be prepared for the project. Preparation of this plan and subsequent planting and monitoring shall be a condition of project approval and shall be tied to a security bond posted by the developer. A cash bond prepared for the benefit of the City of Santa Rosa or a cash deposit shall be submitted to the City of Santa Rosa by the applicant covering the costs of mitigation trees (and required irrigation) that are to be installed to compensate for impacts. The cash amount to be held by the City of Santa Rosa shall be determined by a qualified landscape company or landscape architect. The cash or bond shall be held for 24 months and shall be released upon receipt of a report from a qualified arborist or botanist that all planted trees are healthy and established.

The planting plan shall include a planting detail that specifies where all replacement trees would be planted on the project site. The methods used to plant trees shall also be specified. Adequate measures shall be established to minimize predation of planted trees by rodents including, but not limited to, pocket gophers (*Thomomys bottae*) and/or California ground squirrels (*Spermophilus beechyi*).

All planted trees shall be provided with a temporary irrigation system that would be maintained over a minimum three-year establishment period. The irrigation system shall be placed on electric timers so that trees are automatically watered during the dry months of the establishment period. At the end of a suitable establishment period, the irrigation system could be removed.

At the end of a five-year monitoring period, at least 80 percent of planted trees shall be in good health. If the numbers of planted trees falls below an 80 percent survival rate, additional trees shall be planted to bring the total number of planted trees up to 100 percent of the original number of trees planted. Irrigation and follow-up monitoring shall be established over an additional three year period after any replanting occurs. Any follow-up monitoring will be reported annually to the City of Santa Rosa Planning Department.

Additionally, the following construction policies and guidelines for tree preservation and protection put forth by the City of Santa Rosa shall also be followed during project implementation:

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 be either the root zone or other limit as may be established by the City. Such fences shall remain continuously in place for the duration of all work undertaken in connection with the development. The area so fenced off shall not be used as a storage area or altered or disturbed except as may be permitted under this subsection.

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, as approved by the Director or the Planning Commission, 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 drip line of a protected tree. No burning or use of equipment with an open flame shall occur near or within the protected perimeter. All brush, earth and other debris shall be removed in a manner which prevents injury to the 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 of any protected tree, or at any other location on the site from which substances might enter the perimeter of a protected tree. No construction materials shall be stored within the protected perimeter of a 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 service 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.

This mitigation measure would reduce impacts to trees to a level considered less than significant.

13.3 Impact 2. Nesting Raptors (Potentially Significant)

Suitable nesting habitat for red shouldered hawk, red-tailed hawk and white-tailed kite, which are all known from the area, occurs on and adjacent to the project site. All of these 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, 3511, and 3513. Any project-related impacts to these species would be considered a significant adverse impact. Potential impacts to these species from the proposed project include disturbance to nesting birds, and possibly death of adults and/or young.

While old (inactive) nests or nesting raptors were not observed on or near the project site during field surveys in 2010 and 2011, the survey on the project site did not specifically focus on nesting raptors; hence, not every tree was checked for an active nest. Additionally, raptors are highly mobile species that could move into the area at any time to nest. Potential impacts to these species from the proposed project include loss of nesting habitat, disturbance to nesting birds, and possibly death of adults and/or young. In the absence of survey results, it must be concluded that impacts to nesting raptors from the proposed project would be potentially significant. This impact could be mitigated to a less than significant level.

13.4 Mitigation Measure 2. Nesting Raptors

In order to avoid impacts to nesting raptors, a nesting survey shall be conducted 30 days prior to commencing with tree removal or construction work if this work would commence between February 1st and August 31st. The raptor nesting surveys shall include examination of all trees within 300 feet of the entire project site (if access is readily available to offsite areas), not just trees slated for removal.

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 300-foot radius around the nest tree must be staked with bright orange lath or other suitable staking. If the tree is adjacent to 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 August 1st. *This date may be earlier than August 1, or later, and would have to be determined by a qualified raptor biologist.* Implementation of this mitigation measure would reduce impacts to nesting raptors to a level considered less than significant pursuant to CEQA.

This mitigation measure would reduce impacts to nesting raptors to a level considered less than significant.

13.1 Impact 3. Nesting Passerine Birds – Tree Removal and Site Development May Have a Potentially Significant Impact on Nesting Passerine Birds (Potentially Significant)

Nesting passerine (perching) birds could be impacted by the proposed project. Birds and their 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. This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.2 Mitigation Measure 3. Nesting Passerine Birds

If tree removal or site disturbance would occur between February 1 and August 31, a nesting survey shall be conducted on the project site prior to the disturbance. The nesting surveys should be completed 15 days prior to commencing with the work. If nesting passerine birds are identified nesting on or near the project site, a 75-foot radius around the nest must be staked with bright orange spray painted lath or construction fencing. If an active nest is found offsite, the portion of the buffer that is onsite must be staked. No construction or earth-moving activity shall occur within this 75-foot staked buffer until it is determined by a qualified ornithologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones.

Typically, most birds in the region of the project site are expected to complete nesting by August 1st. However, in the region many species can complete nesting by mid-June to mid-July. Regardless, nesting buffers should be maintained until August 1st 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 1st, the qualified biologist conducting the nesting surveys shall prepare a report that provides details about the nesting outcome and the removal of buffers. This report shall be submitted to the City of Santa Rosa Planning Department prior to the time that buffers are removed if the date is before August 1st.

This mitigation measure would reduce impacts to nesting passerine bird species to a level considered less than significant.

13.3 Impact 4. Impacts to Waters of the United States and/or State (Significant)

There is one man-made ditch and several topographic low areas on the northeastern and southeastern sides of the project site where seasonal wetlands occur. The proposed project would result in impacts to areas within the Corps' and RWQCB jurisdiction pursuant to Sections 404 and 401 of the Clean Water Act, respectively. Areas subject to jurisdiction by these two agencies include the seasonal wetlands and ditch in the northeastern and southeastern portions of the project site. **Impacts to 0.22-acre of "waters of the United States/State" would occur from implementation of the proposed project.** This impact would be regarded as significant. This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.4 Mitigation Measure 4. Impacts to Waters of the United States and/or State

Impacts to potential waters of the United States and/or State can be reduced to less-than-significant levels through various means, including avoidance, minimization of impacts, and mitigation compensation.

On February 17, 2011, M&A biologists Mr. Monk and Ms. de Geofroy met at RWQCB's North Coast office with Mrs. Stephen Bargsten of the RWQCB and Mr. Sahrye Cohen of the Corps to discuss the proposed project. Both Ms. Cohen and Mr. Bargsten agreed that impacts to waters of the U.S. and State (respectively) could be mitigated using a Corps and RWQCB approved

wetland conservation bank. Both Ms. Cohen and Mr. Bargsten agreed that it made little sense to preserve wetland on this relatively small project site.

The applicant is proposing to mitigate impacts to 0.22-acre (9,623 square feet) of Corps and RWQCB jurisdictional seasonal wetlands via purchase of mitigation credits from the Horn Avenue Mitigation Bank. Wetlands on the project were mostly created by the former resident as a "sink" collecting surface runoff from the surface area for the private residence relatively recently removed from the site. Wetland vegetation does not consist of vernal pool species, rather is mostly comprised of low value, non-native wetland plant species. As such the proposed impacted wetlands have low functions and services (i.e., they are low quality wetlands). Thus, mitigation at a 2:1 ratio (i.e., for each tenth of an acre of impact, compensation shall consist of 2 tenths of an acre of mitigation credits) from a qualified mitigation bank is appropriate. Since mitigation credits must be purchased at a minimum of 0.05-acre increments, and since the project will impact 0.22-acre of seasonal wetland, 0.45-acre of mitigation credits shall be purchased from the Horn Mitigation Bank, a qualified wetlands mitigation bank. An agreement with the Horn Mitigation Bank to purchase these mitigation credits was signed by the Applicant on March 12, 2012. Proof of purchase of the credits shall be provided to the City of Santa Rosa, Corps, USFWS, and CDFG.

This mitigation measure would reduce the project's impact to waters of the U.S./State to a less than significant level.

13.1 Impact 5. Impacts to Suitable California Tiger Salamander Habitat (Significant)

Although no CTS larvae were found on the project site, potentially suitable CTS habitat occurs on the project site. The project site is within the "Santa Rosa Plain Unit, Unit 1" of federally designated CTS Critical Habitat. Additionally, there are records of CTS within 0.30-mile of the project site although no adult CTS occurrences have been documented within 500 feet of the project site. In accordance with the *Programmatic Biological Opinion of U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain* (USFWS 1998), for projects that are greater than 500 feet and within 2,200 feet of a known breeding site, CTS are required to be mitigated at a 2:1 ratio (i.e., for each acre of impact, compensation shall consist of 2 acres of mitigation credits). As there is no existing hardscape on the project site, the entire 0.98-acre project site is considered to be CTS habitat. Development of this project site without further consideration of CTS would be a significant adverse impact.

This impact could be mitigated to a level considered less than significant pursuant to CEQA.

13.2 Mitigation Measure 5. Impacts to Suitable California Tiger Salamander Habitat.

In accordance with the *Programmatic Biological Opinion of U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain* (Programmatic BO), the applicant will mitigate impacts to 0.98-acre of CTS habitat with the purchase of 1.96 acres of mitigation credits from a USFWS-approved mitigation bank. To meet this mitigation requirement, the applicant has agreed to purchase 0.33-acre of combined Sebastopol Meadowfoam (*Limnanthes vinculans*) and CTS mitigation credit from the Swift/Turner Conservation Bank. The remaining 1.63 acres of CTS

mitigation credits have been purchased from Hale Wetland Mitigation and the Hazel Mitigation Bank. An agreement with the Hale and Hazel Mitigation Banks and the Swift/Turner Conservation Bank to purchase these mitigation credits was signed by the Applicant on March 12, 2012.

On September 14, 2011, Monk & Associates principal biologist Mr. Geoff Monk met with Mr. Vincent Griego of the USFWS and Ms. Stephanie Buss of the CDFG in Sacramento at the USFWS' Endangered Species Office. At this meeting, Mr. Griego and Ms. Buss stated that the proposed development plan for the 0.98-acre parcel was acceptable provided the applicant purchased mitigation credits from an approved USFWS/CDFG compensation bank for impacts to California tiger salamander, rare pants, and wetlands. Mitigation credits were to be purchased commensurate with the requirements set forth in the Programmatic BO. After reviewing the survey results of CTS larval studies completed by M&A that were negative on this project site (i.e., no CTS were found breeding and there is not a likelihood that CTS would breed on this project site), USFWS and CDFG agreed with Mr. Monk that CTS salvage would *not likely* be required (but caveated this by stating that they could not weigh in with certainty regarding salvage until a formal permit application was filed). CTS and rare plant mitigation credits shall be purchased prior to breaking ground on the project site. Proof of purchase of the credits shall be provided to the Corps, USFWS, and CDFG.

This mitigation measure would reduce the project's impact to suitable CTS habitat to a less than significant level.

13.1 Impact 6. Impacts to Suitable Habitat for Special-Status Plants (Significant)

No special-status plant species were identified on the project site during the 2010 and 2011 focused surveys conducted in accordance with all required rare plant survey protocols. Regardless, the project site is designated by the USFWS' Santa Rosa Plain Conservation Strategy as having "Potential for presence of CTS and Listed Plants" (USFWS 2005b). On September 14, 2011, Monk & Associates principal biologist, Mr. Geoff Monk, met with Mr. Vincent Griego of the USFWS and Ms. Stephanie Buss of the CDFG in Sacramento at the USFWS' Endangered Species Office. At this meeting, Mr. Griego and Ms. Buss stated that the proposed development plan for the 0.98-acre parcel was acceptable provided the applicant purchased mitigation credits from an approved USFWS/CDFG compensation bank for impacts to California tiger salamander, rare plants, and wetlands. Mitigation credits were to be purchased commensurate with the requirements set forth in the Programmatic BO. Thus, in accordance with the *Programmatic Biological Opinion of U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain* (USFWS 1998), if surveys have been conducted following USFWS protocols and no listed plants are found, seasonal wetlands on the project site (located in the South Area of the Santa Rosa Plain Study Area) are nevertheless considered to be suitable habitat for listed plant species Sonoma sunshine (*Blennosperma bakeri*), Burke's goldfields (*Lasthenia burkei*), and Sebastopol meadowfoam (*Limnanthes vinculans*). Development of the project site without consideration for these federally and state listed plant species would be a significant adverse impact. This impact could be mitigated to a less than significant level pursuant to CEQA.

13.1 Mitigation Measure 6. Special Status Plants

Prior to groundbreaking, impacts to suitable habitat for Sonoma sunshine, Burke's goldfields and Sebastopol meadowfoam are required to be mitigated with 1:1 occupied or established habitat (any combination) and 0.5:1 of established habitat. The mitigation land is to be preserved and managed in perpetuity. The proposed project would result in impacts to 0.22-acre of seasonal wetland. Per the Programmatic Biological Opinion, it would be considered "suitable habitat" for listed vernal pool plant species. Thus, the applicant shall mitigate impacts to 0.22-acre of seasonal wetland/endangered plant habitat by purchasing 0.33-acre of credit from a USFWS-approved mitigation bank (1.5:1 ratio). An agreement with the Swift/Turner Conservation Bank to purchase 0.33-acre of Sebastopol meadowfoam mitigation credits was signed by the Applicant on March 12, 2012.

This mitigation measure would reduce the project's impact to special-status plants to a less than significant level.

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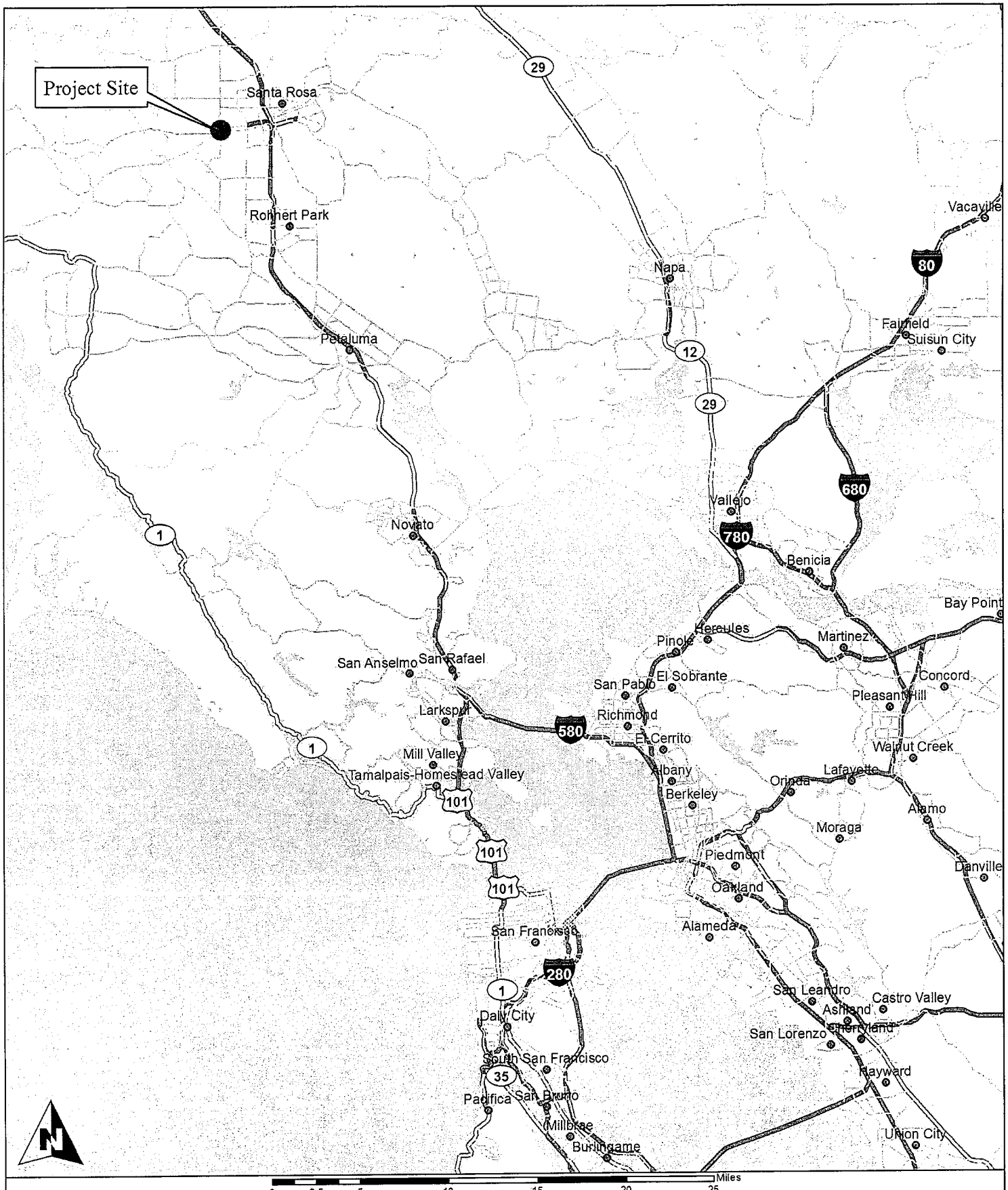

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Figure 1. Elm Tree Station
Project Site Regional Map
Santa Rosa, California

County: Sonoma
Map Preparation Date: April 20, 2012

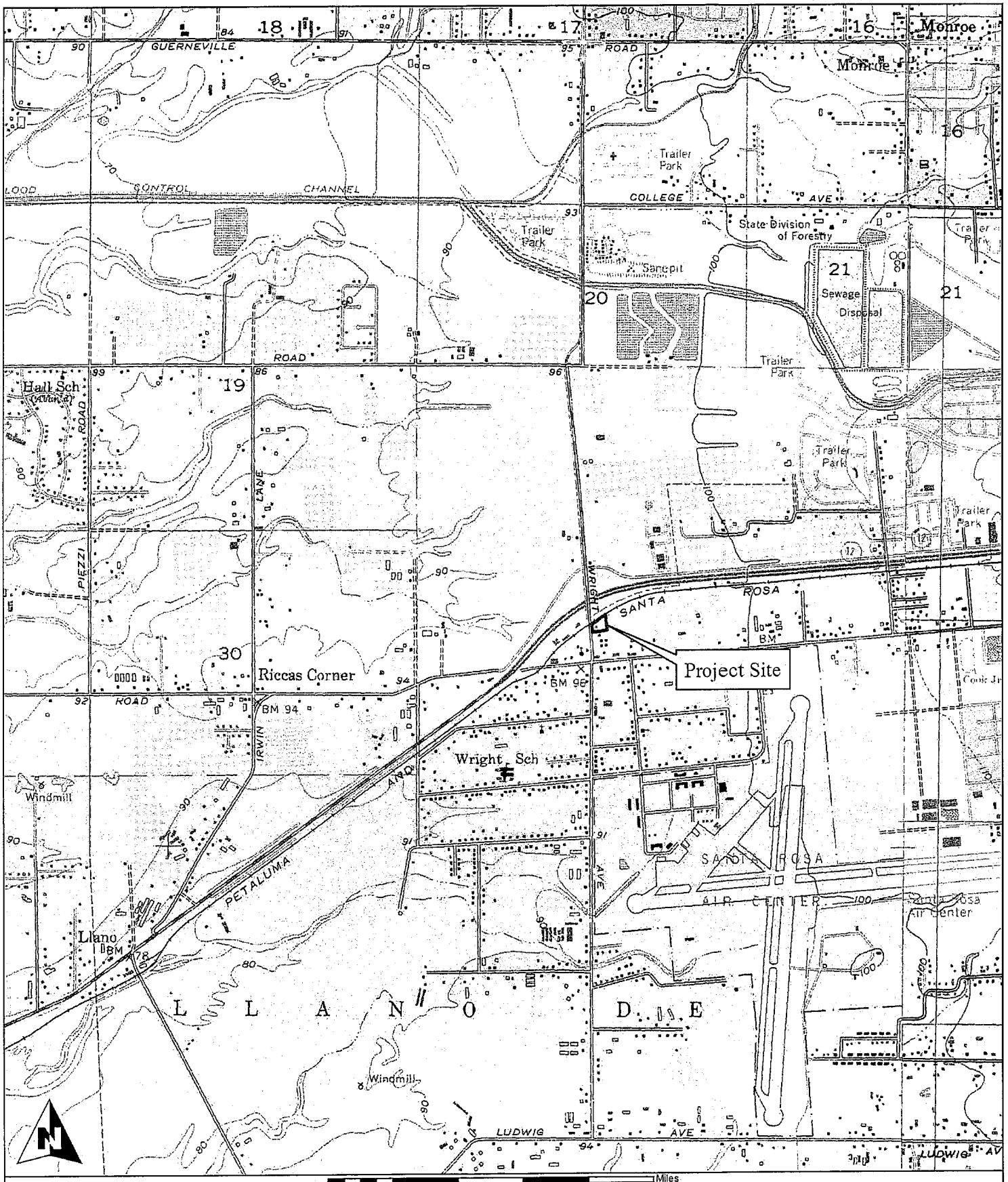

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Figure 2. Elm Tree Station
Project Site Location Map
Santa Rosa, California

7.5-Minute Sebastopol quadrangle
Topography Source: http://gis.ca.gov
Map Preparation Date: April 20, 2012

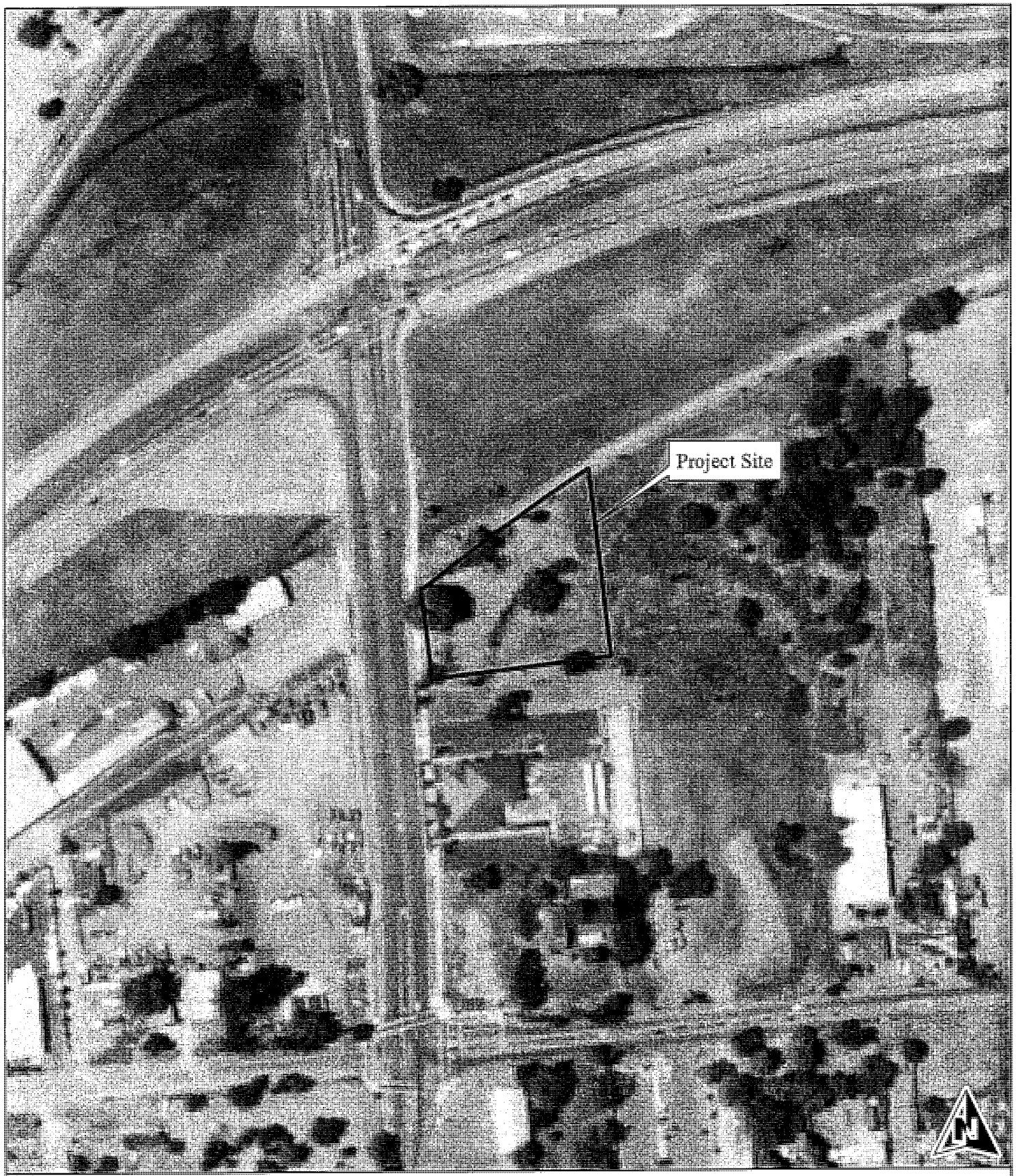

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Figure 3. Aerial Photograph of the
Elm Tree Station Project
Santa Rosa, California

Map Preparation Date: April 20, 2012
Aerial Photograph Source: http://gis.ca.gov

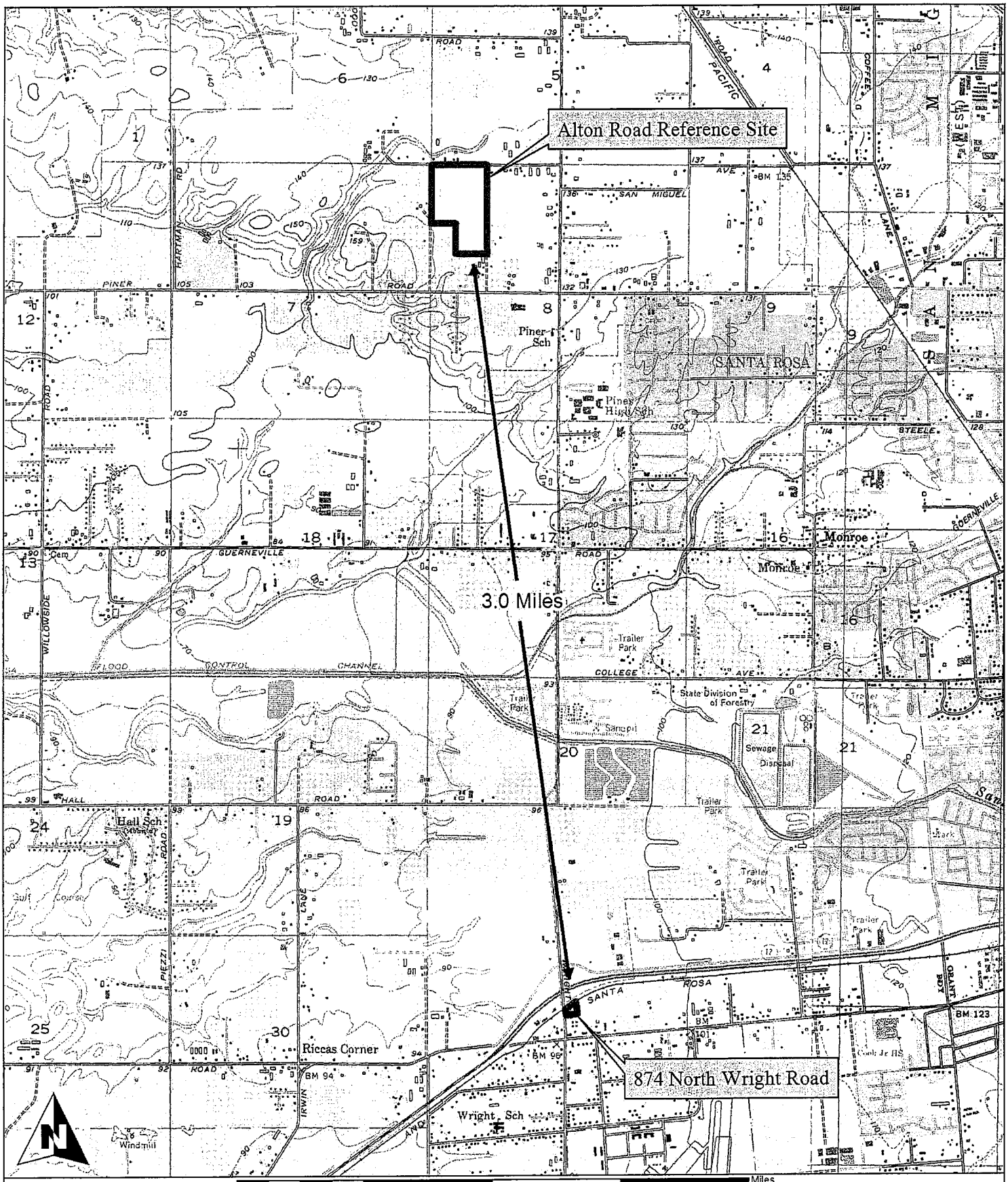

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Figure 4. Proximity of Reference Site to the
Elm Tree Station Project Site
Santa Rosa, California

7.5-Minute Sebastopol quadrangle
Topography Source: http://gis.ca.gov
Map Preparation Date: April 20, 2012

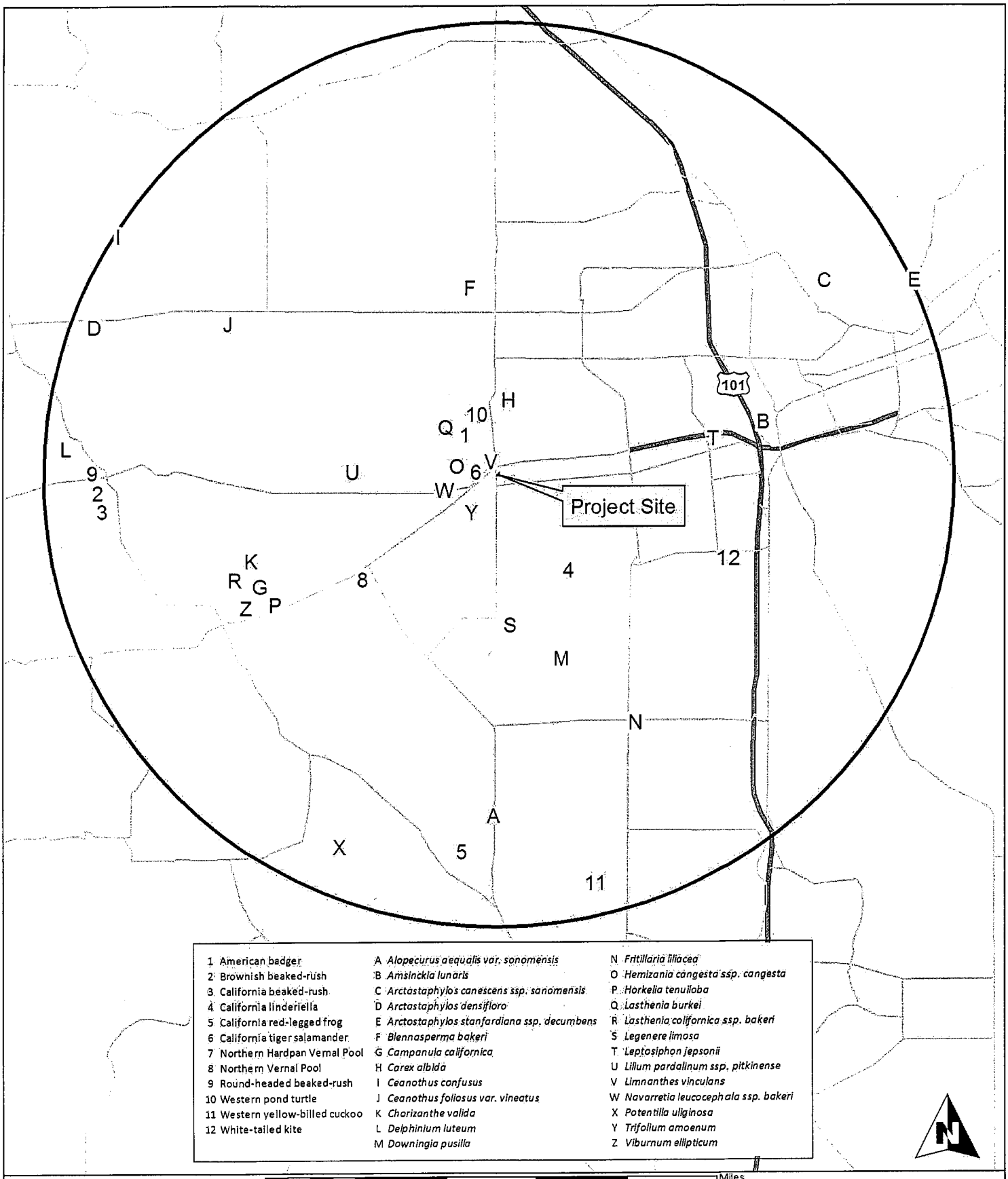

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Figure 5. Closest Known Special-Status Species within 5 Miles of the Elm Tree Station Project Site

Map Preparation Date: April 20, 2012
5-Mile Radius
Source: CDFG
California Natural Diversity Data Base, 2012

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Figure 6. Closest California Tiger Salamander (CTS) Occurrences within 2 Miles of the Elm Tree Station Project Site Santa Rosa, California

Map Preparation Date: April 20, 2012
Source: CDFG,
California Natural Diversity Data Base, 2012

Table 1

Plants Species Observed on the Elm Tree Station Project Site

Gymnosperms	
Pinaceae	
Pinus radiata	Monterey pine
Angiosperms - Dicots	
Apocynaceae	
Asclepias fascicularis	Narrow-leaf milkweed
Asteraceae	
Baccharis pilularis subsp. pilularis	Baccharis
**Carduus pycnocephalus subsp. pycnocephalus*	Italian thistle
**Cichorium intybus*	Chicory
**Cirsium vulgare*	Bull thistle
**Helminthotheca echioides*	Bristly ox-tongue
**Hypochaeris radicata*	Rough cat's-ear
**Lactuca saligna*	Willow lettuce
**Lactuca serriola*	Prickly lettuce
**Senecio vulgaris*	Common groundsel
**Silybum marianum*	Milk thistle
**Sonchus asper subsp. asper*	Prickly sow-thistle
**Taraxacum officinale*	Common dandelion
**Tragopogon porrifolius*	Common salsify
Xanthium strumarium	Cocklebur
Brassicaceae	
**Brassica nigra*	Black mustard
**Hirschfeldia incana*	Short-podded mustard
**Raphanus sativus*	Wild radish
Celastraceae	
**Maytenus boaria*	Mayten tree
Convolvulaceae	
**Convolvulus arvensis*	Bindweed
Dipsacaceae	
**Dipsacus fullonum*	Wild teasel
Fabaceae	
**Lotus corniculatus*	Birdfoot trefoil
**Medicago polymorpha*	California burclover
**Trifolium repens*	White clover
**Vicia sativa*	Common vetch
Fagaceae	
Quercus lobata	Valley oak
Geraniaceae	
**Erodium moschatum*	White-stem filaree
**Geranium dissectum*	Cut-leaf geranium

* Indicates a non-native species

Table 1

Plants Species Observed on the Elm Tree Station Project Site

Lamiaceae	
**Mentha pulegium*	Pennyroyal
Stachys rigida var. rigida	Rigid hedge-nettle
Lythraceae	
**Lythrum hyssopifolia*	Hyssop loosestrife
Oleaceae	
Fraxinus latifolia	Oregon ash
Polygonaceae	
**Rumex conglomeratus*	Green dock
**Rumex crispus*	Curly dock
**Rumex pulcher*	Fiddle dock
Rosaceae	
Prunus sp.	Prunus
**Rosa sp.*	Wild rose
**Rubus armeniacus*	Himalayan blackberry
Rubiaceae	
Galium aparine	Goose grass
Salicaceae	
**Populus alba*	White poplar
Ulmaceae	
**Ulmus parvifolia*	Chinese elm
**Ulmus pumila*	Dwarf Asiatic elm
Vitaceae	
Vitis californica	California wild grape
Angiosperms -Monocots	
Alismataceae	
Alisma triviale	Water plantain
Alliaceae	
**Allium triquetrum*	Onion
Amaryllidaceae	
**Agapanthus orientalis*	Lilly-of-the-Nile
**Narcissus sp.*	Narcissus
Araceae	
**Zantedeschia aethiopica*	Calla-lily
Asphodelaceae	
**Kniphofia uvaria*	Red-hot poker
Cyperaceae	
Carex densa	Dense sedge
Cyperus eragrostis	Tall flatsedge
Eleocharis macrostachya	Creeping spikerush

* Indicates a non-native species

Table 1

Plants Species Observed on the Elm Tree Station Project Site

Iridaceae	
Iris sp.	Iris
Juncaceae	
Juncus mexicanus	Mexican rush
Poaceae	
**Arundo donax*	Giant reed
**Avena barbata*	Slender wild oat
**Bromus catharticus var. elatus*	Chilean brome
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft chess
**Bromus sterilis*	Poverty brome
Elymus glaucus	Blue wildrye
**Festuca bromoides*	Brome fescue
**Festuca myuros*	Rattail sixweeks grass
**Festuca perennis*	Italian ryegrass
Hordeum brachyantherum	Meadow barley
**Hordeum murinum subsp. leporinum*	Hare barley
**Phalaris aquatica*	Harding grass
Pleuropogon californicus var. californicus	Annual semaphore grass
**Poa trivialis*	Rough bluegrass
**Stipa miliacea var. miliacea*	Smilo grass

* Indicates a non-native species

Table 2
Wildlife Species Observed on the Elm Tree Station Project Site

Amphibians	
Sierran tree frog	*Pseudacris sierra*
Reptiles	
Western fence lizard	*Sceloporus occidentalis*
Birds	
Turkey vulture	*Cathartes aura*
Mallard	*Anas platyrhynchos*
Red-shouldered hawk	*Buteo lineatus*
Killdeer	*Charadrius vociferus*
Anna's hummingbird	*Calypte anna*
Nuttall's woodpecker	*Picoides nuttallii*
Black phoebe	*Sayornis nigricans*
Western scrub jay	*Aphelocoma californica*
American crow	*Corvus brachyrhynchos*
Bushtit	*Psaltriparus minimus*
American robin	*Turdus migratorius*
Northern mockingbird	*Mimus polyglottos*
Yellow-rumped warbler	*Dendroica coronata*
Spotted towhee	*Pipilo maculatus*
California towhee	*Pipilo crissalis*
Song sparrow	*Melospiza melodia*
House finch	*Carpodacus mexicanus*
Lesser goldfinch	*Carduelis psaltria*
Mammals	
California ground squirrel	*Spermophilus beecheyi*
Botta's pocket gopher	*Thomomys bottae*
Columbian black-tailed deer	*Odocoileus hemionus columbianus*
California meadow vole	*Microtus californicus*

Table 3

Special-Status Plant Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Adoxaceae					
Viburnum ellipticum Western viburnum	Fed: - State: - CNPS: List 2.3	May-July	Chaparral; cismontane woodland; lower montane coniferous forest.	Closest known occurrence to the project site is 2.7 miles to the west (CNDDB Occurrence No. 22).	None. This species was not observed during two years of appropriately timed surveys.
Asteraceae					
Balsamorhiza macrolepis Big-scale balsam-root	Fed: - State: - CNPS: List 1B.2	March-June	Cismontane woodland; valley and foothill grassland; [sometimes serpentinite].	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Blennosperma bakeri Sonoma sunshine	Fed: FE State: CE CNPS: List 1B.1	February-April	Valley and foothill grassland (mesic); vernal pools.	Closest known occurrence to the project site is 2.0 miles to the north (CNDDB Occurrence No. 9)	None. This species was not observed during two years of appropriately timed surveys.
Centromadia parryi parryi Pappose tarplant	Fed: - State: - CNPS: List 1B.2	May-November	Coastal prairie; meadows and seeps; marshes and swamps; vernally wet grassland (sometimes alkaline).	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Cirsium andrewsii Franciscan thistle	Fed: - State: - CNPS: List 1B.2	June-July	Broadleafed upland forest; coastal bluff scrub; [sometimes serpentinite].	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Erigeron greenei Narrow-leaved daisy	Fed: - State: - CNPS: List 1B.2	May-September	Chaparral (serpentinite).	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.

Table 3

Special-Status Plant Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Erigeron serpentinus Serpentine daisy	Fed: - State: - CNPS: List 1B.3	May-August	Chaparral (serpentinite).	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Hemizonia congesta congesta Pale yellow hayfield tarplant	Fed: - State: - CNPS: List 1B.2	April-November	Valley and foothill grassland. 20 to 560 meters.	Closest known occurrence to the project site is 0.1 miles to the west (CNDDB Occurrence No. 49)	None. This species was not observed during two years of appropriately timed surveys.
Hesperevax sparsiflora brevifolia Short-leaved evax	Fed: - State: - CNPS: List 1B.2	April-June	Coastal bluff scrub; coastal dunes.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Lasthenia burkei Burke's goldfields	Fed: FE State: CE CNPS: List 1B.1	April-June	Meadows (mesic); vernal pools.	Closest known occurrence to the project site is 0.5 miles to the northwest (CNDDB Occurrence No. 28)	None. This species was not observed during two years of appropriately timed surveys.
Lasthenia conjugens Contra Costa goldfields	Fed: FE State: - CNPS: List 1B.1	March-June	Valley and foothill grassland (mesic); vernal pools.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Lasthenia macrantha bakeri Baker's goldfields	Fed: - State: - CNPS: List 1B.2	April-October	Closed-cone coniferous forest, coastal scrub (meeadows and seeps; marshes and swamps).	Closest known occurrence to the project site is 2.7 miles to the west (CNDDB Occurrence No. 3)	None. This species was not observed during two years of appropriately timed surveys.

Table 3

Special-Status Plant Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Microseris paludosa Marsh silverpuffs	Fed: - State: - CNPS: List 1B.2	April-June	Closed-cone coniferous forest; cismontane woodland; coastal scrub; valley and foothill grassland. 5-300 m.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Campanulaceae					
Campanula californica Swamp bellflower	Fed: - State: - CNPS: List 1B.2	June-September	Bogs & fens; closed-cone coniferous forest; coastal prairie; meadows; marshes & swamps (freswater); north coast coniferous forest.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Downingia pusilla Dwarf downingia	Fed: - State: - CNPS: List 2.2	March-May	Valley and foothill grassland (mesic); vernal pools.	Closest known occurrenct to the project site is 2.2 miles to the south (CNDDB Occurrence No. 86)	None. This species was not observed during two years of appropriately timed surveys.
Legenere limosa Legenere	Fed: - State: - CNPS: List 1B.1	April-June	Vernal pools.	Closest known occurrence to the project site is 1.6 miles to the south (CNDDB Occurrence No. 39)	None. This species was not observed during two years of appropriately timed surveys.
Convolvulaceae					
Cuscuta obtusiflora glandulosa Dodder	Fed: State: CNPS: List 2.2	July-October		Closest known occurrence to the project site is 3.0 miles to the west (CNDDB Occurrence No. 4).	None. No suitable habitat on the project site. No species in the genus Cuscuta observed during field surveys.
Cyperaceae					
Carex albida White sedge	Fed: FE State: CE CNPS: List 1B.1	May-July	Bogs and fens; marshes and swamps (freshwater).	Closest known occurrence to the project site is 0.7 miles to the northwest (CNDDB Occurrence No. 2)	None. This species was not observed during two years of appropriately timed surveys.

Table 3

Special-Status Plant Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Carex comosa Bristly sedge	Fed: - State: - CNPS: List 2.1	May-September	Marshes and swamps.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Rhynchospora alba White beaked-rush	Fed: - State: - CNPS: List 2.2	July-August	Bogs and fens; marshes and swamps (freshwater).	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Rhynchospora californica California beaked-rush	Fed: - State: - CNPS: List 1B.1	May-July	Lower montane conifersous forest; meadows (seeps); marshes and swamps (freshwater).	Closest known occurrence to the project site is 4.3 miles to the west (CNDDB Occurrence No. 3)	None. This species was not observed during two years of appropriately timed surveys.
Rhynchospora capitellata Brownish beaked-rush	Fed: - State: - CNPS: List 2.2	July-August	Lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest / mesic; elevation range 455 - 2000 meters (approx. 1,493 - 6,652 feet)	Closest known occurrence to the project site is 4.3 miles to the west (CNDDB Occurrence No. 2)	None. This species was not observed during two years of appropriately timed surveys.
Rhynchospora globularis Roundheaded beaked-rush	Fed: - State: - CNPS: List 2.1	July-August	Marshes and swamps (freshwater).	Closest known occurrence to the project site is 4.3 miles to the west (CNDDB Occurrence No. 2)	None. This species was not observed during two years of appropriately timed surveys.
Ericaceae					
Arctostaphylos bakeri bakeri Baker's manzanita	Fed: - State: CR CNPS: List 1B.1	February-April	Broad-leaved upland forest; chaparral; [often serpentinite].	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.

Table 3

Special-Status Plant Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Arctostaphylos bakeri sublaevis The Cedars manzanita	Fed: - State: CR CNPS: List 1B.2	April-May	closed-cone coniferous forest; chaparral; [serpentinite seeps].	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Arctostaphylos canescens sonomensis Sonoma manzanita	Fed: - State: - CNPS: List 1B.2	January-March	Chaparral; lower montane coniferous forest.	Closest known occurrence to the project site is 3.8 miles to the northeast (CNDDB Occurrence No. 20)	None. This species was not observed during two years of appropriately timed surveys.
Arctostaphylos densiflora Vine Hill manzanita	Fed: - State: CE CNPS: List 1B.1	February-March	Chaparral (acid marine sand).	Closest known occurrence to the project site is 4.1 miles to the northwest (CNDDB Occurrence No. 4)	None. This species was not observed during two years of appropriately timed surveys.
Arctostaphylos stanfordiana decumbens Rincon manzanita	Fed: - State: - CNPS: List 1B.1	February-April	Chaparral (rhyolitic).	Closest known occurrenc to the project site is 4.8 miles to the northeast (CNDDB Occurrence No. 2)	None. This species was not observed during two years of appropriately timed surveys.
Fabaceae					
Amorpha californica napensis Napa false indigo	Fed: - State: - CNPS: List 1B.2	April-July	Broadleaved upland forest (openings); chaparral, cismontane woodland. 150-2000 m.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Astragalus claranus Clara Hunt's milkvetch	Fed: FE State: CT CNPS: List 1B.1	March-May	Cismontane woodland; valley and foothill grassland; [serpentinite, volcanic clay].	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.

Table 3

Special-Status Plant Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Trifolium amoenum Showy Indian clover	Fed: FE State: - CNPS: List 1B.1	April-June	Valley and foothill grassland (sometimes serpentinite)	Closest known occurrence to the project site is a 1945 record located 0.4 miles to the southwest (CNDDB Occurrence No. 20)	None. This species was not observed during two years of appropriately timed surveys.
Trifolium hydrophilum Saline clover	Fed: - State: - CNPS: List 1B.2	April-June	Marshes and swamps; valley and foothill grassland (mesic, alkaline); vernal pools. 0-300 m.	Closest known occurrence to the project site is 0.4 miles to the southwest (CNDDB Occurrence No. 16). Habitat at this location is now extirpated.	None. This species was not observed during two years of appropriately timed surveys.
Liliaceae					
Fritillaria liliacea Fragrant fritillary	Fed: - State: - CNPS: List 1B.2	February-April	Coastal prairie; coastal scrub; valley and foothill grassland; [often serpentinite].	Closest known occurrence to the project site is 3.1 miles to the southeast (CNDDB Occurrence No. 49)	None. This species was not observed during two years of appropriately timed surveys.
Lilium pardalinum pitkinense Pitkin Marsh lily	Fed: FE State: CE CNPS: List 1B.1	June-July	Cismontane woodland (mesic); marshes and swamps (freshwater).	Closest known occurrence undisclosed (CNDDB Occurrence No. 3)	None. This species was not observed during two years of appropriately timed surveys.
Limnanthaceae					
Limnanthes vinculans Sebastopol meadowfoam	Fed: FE State: CE CNPS: List 1B.1	April-May	Meadows (mesic); vernal pools.	Closest known occurrence to the project site is 0.1 miles to the northwest (CNDDB Occurrence No. 22)	None. This species was not observed during two years of appropriately timed surveys.
Onagraceae					
Clarkia imbricata Vine Hill clarkia	Fed: FE State: CE CNPS: List 1B.1	June-July	Chaparral; meadows; cismontane woodland.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.

Table 3

Special-Status Plant Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Orobanchaceae					
Castilleja uliginosa Pitkin Marsh paintbrush	Fed: - State: CE CNPS: List 1A	June-July	Marshes and swamps (freshwater).	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Chloropyron maritimum palustre Point Reyes salty bird's-beak	Fed: - State: - CNPS: List 1B.2	June-October	Marshes and swamsp (coastal salt).	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Cordylanthus tenuis capillaris Pennell's bird's-beak	Fed: FE State: CR CNPS: List 1B.2	June-July	Closed-cone coniferous forest; chaparral; [serpentinite].	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Poaceae					
Agrostis blasdalei Blasdale's bent grass	Fed: - State: - CNPS: List 1B.2	May-July	Coastal bluff scrub; coastal dunes; coastal prairie.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Alopecurus aequalis sonomensis Sonoma alopecurus	Fed: FE State: - CNPS: List 1B.1	May-July	Marshes & swamps (freshwater); riparian scrub.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Calamagrostis stricta inexpansa Narrow-spike reed grass	Fed: - State: - CNPS: List 2.1	May-July	Coastal scrub (mesic). Swamps and marshes (freshwater).	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.

Table 3

Special-Status Plant Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Polemoniaceae					
Gilia capitata chamissonis Blue coast gilia	Fed: - State: - CNPS: List 1B.1	April-July	Coastal dunes; coastal scrub.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Gilia capitata tomentosa Woolly-headed gilia	Fed: - State: - CNPS: List 1B.1	May-July	Coastal bluff scrub (rocky, outcrops). 15-155 m.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Leptosiphon jepsonii Jepson's leptosiphon	Fed: - State: - CNPS: List 1B.2	March-May	Chaparral; cismontane woodland (usually volcanic).	Closest known occurrence to the project site is 2.0 miles to the west (CNDDB Occurrence No. 3)	None. This species was not observed during two years of appropriately timed surveys.
Navarretia leucocephala bakeri Baker's navarretia	Fed: - State: - CNPS: List 1B.1	May-July	Cismontane woodland; lower montane coniferous forest; meadows (mesic); valley and foothill grassland; vernal pools.	Closest known occurrence to the project site is 0.1 miles to the north (CNDDB Occurrence No. 21)	None. This species was not observed during two years of appropriately timed surveys.
Polygonaceae					
Chorizanthe cuspidata cuspidata San Francisco Bay spineflower	Fed: - State: - CNPS: List 1B	April-July	Coastal bluff scrub; coastal dunes; coastal prairie; coastal scrub [sandy]	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Chorizanthe cuspidata villosa Woolly-headed spineflower	Fed: - State: - CNPS: List 1B.2	May-August	Coastal dunes; coastal prairie; coastal scrub; [sandy].	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.

Table 3

Special-Status Plant Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Chorizanthe valida Sonoma spineflower	Fed: FE State: CE CNPS: List 1B.1	June-August	Coastal prairie (sandy).	Closest known occurrence to the project site is 2.7 miles to the southwest (CNDDB Occurrence No. 4)	None. This species was not observed during two years of appropriately timed surveys.
Ranunculaceae					
Delphinium bakeri Baker's larkspur	Fed: FE State: CE CNPS: List 1B.1	March-May	Coastal scrub.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Delphinium luteum Golden larkspur	Fed: FE State: CR CNPS: List 1B.1	March-May	Chaparral; coastal prairie; coastal scrub.	Closest known occurrence to the project site is 4.2 miles to the west (CNDDB Occurrence No. 3).	None. This species was not observed during two years of appropriately timed surveys.
Rhamnaceae					
Ceanothus confusus Rincon Ridge ceanothus	Fed: - State: - CNPS: List 1B.1	February-April	Closed-cone coniferous forest; chaparral; cismontane woodland; [volcanic or serpentinite].	Closest known occurrence to the project site is 4.9 miles to the northwest (CNDDB Occurrence No. 9)	None. This species was not observed during two years of appropriately timed surveys.
Ceanothus divergens Calistoga ceanothus	Fed: - State: - CNPS: List 1B.2	March-April	Chaparral (serpentinite or volcanic).	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Ceanothus foliosus vineatus Vine Hill ceanothus	Fed: - State: - CNPS: List 1B.1	March-May	Chaparral.	Closest known occurrence to the project site is 3.3 miles to the northwest (CNDDB Occurrence No. 3)	None. This species was not observed during two years of appropriately timed surveys.

Table 3

Special-Status Plant Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Ceanothus purpureus Holly-leaf ceanothus	Fed: - State: - CNPS: List 1B.2	February-April	Chaparral (volcanic).	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Ceanothus sonomensis Sonoma ceanothus	Fed: - State: - CNPS: List 1B.2	February-April	Chaparral (sandy, serpentinite, or volcanic).	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Rosaceae					
Horkelia marinensis Point Reyes horkelia	Fed: - State: - CNPS: List 1B.2	May-September	Coastal dunes; coastal prairie; coastal scrub.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.
Horkelia tenuiloba Thin-lobed horkelia	Fed: - State: - CNPS: List 1B.2	May-July	Chaparral (mesic openings).	Closest known occurrence to the project site is 2.7 miles to the southeast (CNDDB Occurrence No. 49)	None. This species was not observed during two years of appropriately timed surveys.
Potentilla hickmanii Hickman's cinquefoil	Fed: FE State: CE CNPS: List 1B	April-August	Coastal bluff scrub; closed-cone coniferous forest; meadows (vernally mesic); marshes and swamps (freshwater).	Closest known occurrence to the project site is 4.4 miles to the southwest (CNDDB Occurrence No. 5)	None. This species was not observed during two years of appropriately timed surveys.
Themidaceae					
Brodiaea leptandra Narrow-flowered California brodiaea	Fed: - State: - CNPS: List 1B.2	May-July	Broadleaved upland forest; chaparral; lower montane coniferous forest. 110-915 m.	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.

Table 3

Special-Status Plant Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Thymelaeaceae					
Dirca occidentalis Western leatherwood	Fed: - State: - CNPS: List 1B.2	January-April	Chaparral; riparian, broadleaf, and coniferous woodlands and forests; [mesic locations].	On CNPS Sebastopol quad search.	None. This species was not observed during two years of appropriately timed surveys.

***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:
- List 1A - Presumed extinct in California
- List 1B - Plants rare, threatened, or endangered in California and elsewhere
- List 1B.1 - Seriously endangered in California (over 80% occurrences threatened/ high degree and immediacy of threat)
- List 1B.2 - Fairly endangered in California (20-80% occurrences threatened)
- List 1B.3 - Not very endangered in California (<20% of occurrences threatened or no current threats known)

CNPS Continued:
- List 2 - Plants rare, threatened, or endangered in California, but more common elsewhere
- List 2.1 - Seriously endangered in California, but more common elsewhere
- List 2.2 - Fairly endangered in California, but more common elsewhere
- List 2.3 - Not very endangered in California, but more common elsewhere
- List 3 - Plants about which we need more information (Review List)
- List 3.1 - Plants about which we need more information (Review List) Seriously endangered in California
- List 3.2 - Plants about which we need more information (Review List) Fairly endangered in California
- List 4 - Plants of limited distribution - a watch list

Table 4

Special-Status Wildlife Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Amphibians				
California tiger salamander *Ambystoma californiense*	Fed: FT State: CT 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.	Closest known location is 0.15 mile to the northwest of the project site, on the other side of Highway 12 which acts as a geographic barrier (CNDDB Occurrence No. 344).	None. Absence confirmed by negative surveys. See text for detail.
California red-legged frog *Rana draytonii*	Fed: FT State: CSC Other:	Occurs in lowlands and foothills in deeper pools and streams, usually with emergent wetland vegetation. Requires 11-20 weeks of permanent water for larval development.	Closest known location is 3.5 miles to the south of project site (CNDDB Occurrence No. 742).	None. No suitable habitat for this species occurs on the project site.
Reptiles				
Western pond turtle *Emys marmorata*	Fed: -- State: CSC 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.	Closest known location is 0.7 mile to the north of the project site (CNDDB Occurrence No. 680).	None. No suitable habitat for this species occurs on the project site.
Birds				
White-tailed kite *Elanus leucurus*	Fed: State: Other: *	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.	Closest known location is 2.6 miles to the east of the project site (CNDDB Occurrence No. 77).	None. Preconstruction surveys will be conducted. See text for detail.
Red-shouldered hawk *Buteo lineatus*	Fed: - State: - Other: *	Found in a wide variety of habitats. Nest in oaks, eucalyptus, cypress trees, riparian woodland. Forages over grasslands, agricultural fields, woodlands.	Common in California	None. Preconstruction surveys will be conducted. See text for detail.

Table 4

Special-Status Wildlife Species Known to Occur within 5 Miles of the Elm Tree Station Project Site

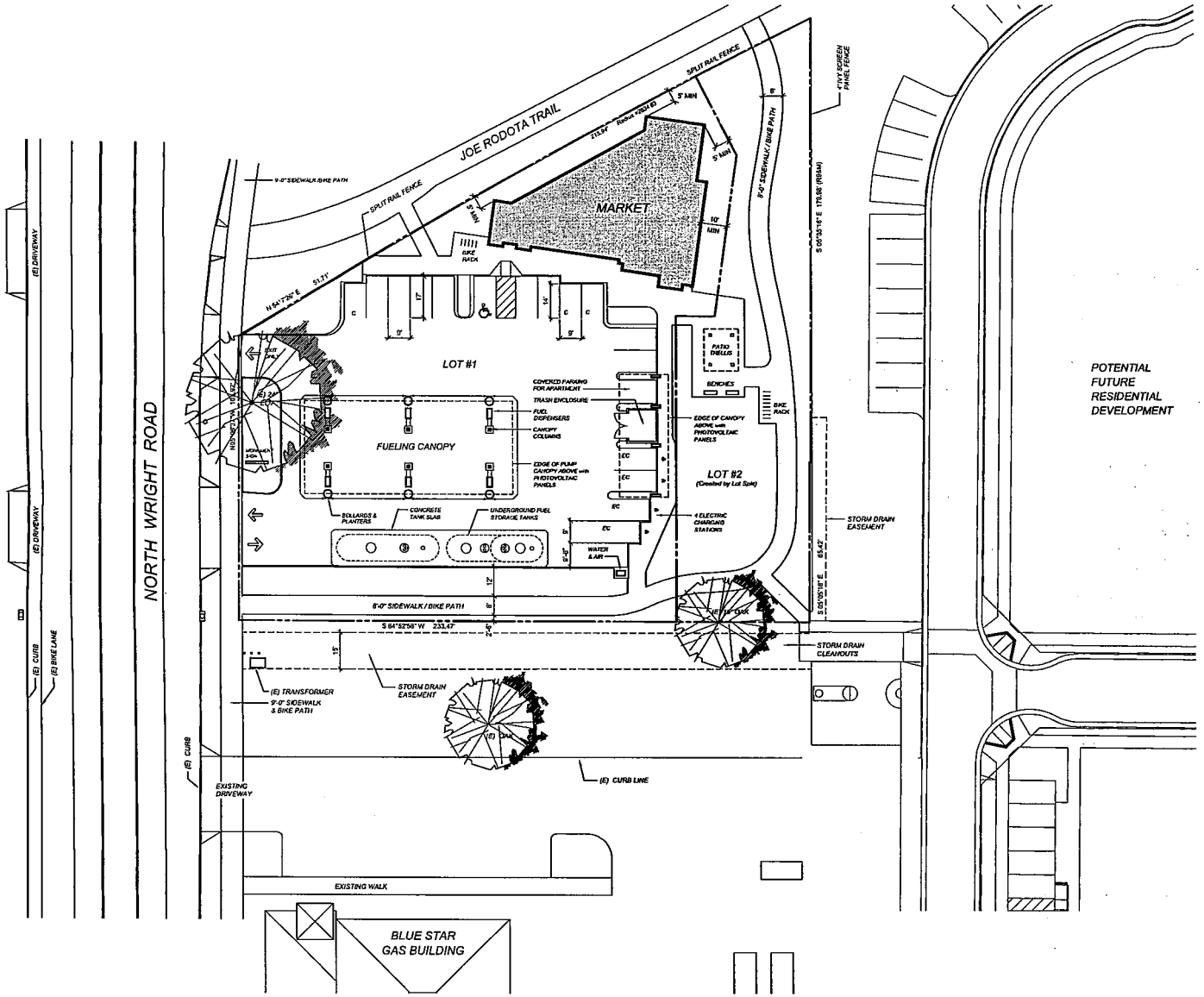
Species	*Status	Habitat	Closest Locations	Probability on Project Site
Red-tailed hawk *Buteo jamaicensis*	Fed: - State: - Other: *	Found in a wide variety of habitats. Nests in oaks, eucalyptus, cypress trees, among others. Forages over grasslands, agricultural fields, woodlands, marshes.	Common in California	None. Preconstruction surveys will be conducted. See text for detail.
Yellow-billed cuckoo *Coccyzus americanus*	Fed: - State: CE Other: *	Inhabits riparian forests along the broad, lower floodplains of larger rivers. Nests in thickets of willows and cottonwoods with an understory of blackberry, nettle, or wild grape.	Closest known location is 4.3 miles to the south of the project site (CNDDB Occurrence No. 97).	None. No suitable habitat for this species occurs on the project site.
Mammals				
American badger *Taxidea taxus*	Fed: - State: CSC 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.	Closest known location is 0.5 mile to the northwest of the project site (CNDDB Occurrence No. 28).	None. No suitable habitat for this species occurs on the project site.

***Status**

Federal:
FE - Federal Endangered
FT - Federal Threatened
FPE - Federal Proposed Endangered
FPT - Federal Proposed Threatened
FC - Federal Candidate
FPD - Federally Proposed for delisting

State:
CE - California Endangered
CT - California Threatened
CR - California Rare
CC - California Candidate
CSC - California Species of Special Concern
WL - Watch List. Not protected persuant to CEQA

*Other:
Most birds have protection under the Migratory Bird Treaty Act. Raptors and their nests are protected by provisions of the California Fish and Game Code. A few species, such as the monarch butterfly and "California Fully Protected Animals," may be protected by policies of the California Department of Fish and Game.



PROJECT DATA

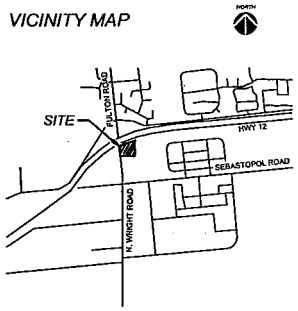
ADDRESS:	874 NORTH WRIGHT ROAD
APN:	035-063-001
ZONING:	PD-0435
LOT SIZE:	
LOT #1:	Approx. 0.73 ACRES
LOT #2:	Approx. 0.25 ACRES
MARKET:	3,558 S.F.
APARTMENT:	806 S.F.
BUILDING COVERAGE:	24.7%

(Building, Gas Pump Canopy, Trash Encl/Carport Canopy)

PARKING REQUIRED:

MARKET (Retail at 1:250 S.F.)	14.0
1-BEDROOM APARTMENT	1.5
	15.5
PARKING PROVIDED:	18

VICINITY MAP



ELM TREE STATION

RETAIL MARKET and FUEL FACILITY

874 N. Wright Road Santa Rosa, California

DEVELOPMENT PLAN

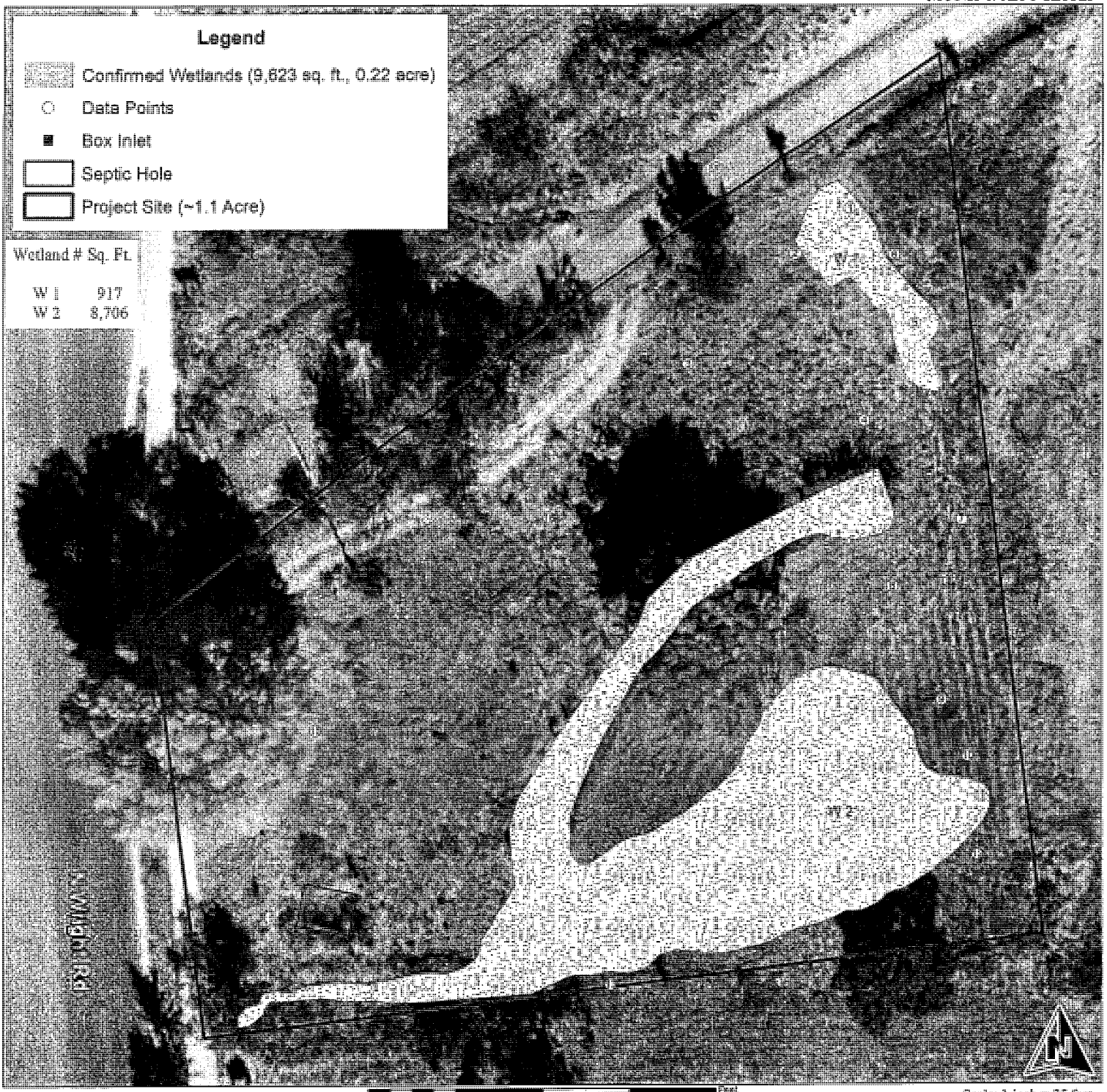
SCALE: 1" = 20'-0"

0' 10' 20' 40'

NORTH

TIERNEY / FIGUEIREDO
817 RUSSELL AVE, SUITE H, SANTA ROSA, CA 95403
(707) 576-1557 (707) 576-1555 FAX TFA@SONIC.NET
ARCHITECTS AIA

09/23/12
#0238



Monk & Associates
Environmental Consultants
1136 Saranap Avenue, Suite Q
Walnut Creek, California 94595
(925) 947-4867

Sheet 1. Confirmed Wetland Delineation
874 North Wright Road Project Site
Santa Rosa, California

Scale: 1 inch = 25 feet
Corps Confimation Date: September 22, 2010
Confirmed by: Sahrye Cohen
Map Revision Date: February 2, 2011
Aerial Photograph Source: Google Earth

TREE REMOVAL MITIGATION

NO.	REMOVAL STATUS	TYPE	PROTECTED TREE	STATUS (SPECIES OR SIZE)	TRUNK D.B.H. IN INCHES	ARBOREAL VALUE (# OF #15 SIZE REPLACEMENT TREES)
1	To remain	Quercus lobata	Y	HERITAGE	17.5	0
2	Remove	Ulmus parvifolia	Y	MITIGATE	11,10.5,13,12.5,11	20
3	To remain	Ulmus parvifolia	Y	PROTECT	21.5, 24	0
4	Remove	Quercus lobata	Y	MITIGATE	4, 3.5 ,5, 5, 6, 4.5	10
5	Remove	Populus alba	Y	EXEMPT	8	0
6	Remove	Fraxinus latifolia	Y	MITIGATE	8.5	4
7	Remove	Populus alba	N	EXEMPT	32	0
8	Remove	Populus alba	Y	DEAD	35	0
9	Remove	Maytenus boaria	Y	MITIGATE	7.5	4
10	Remove	Pinus radiata	Y	EXEMPT	11"	0

Total #15 Size Replacement Trees Required 38

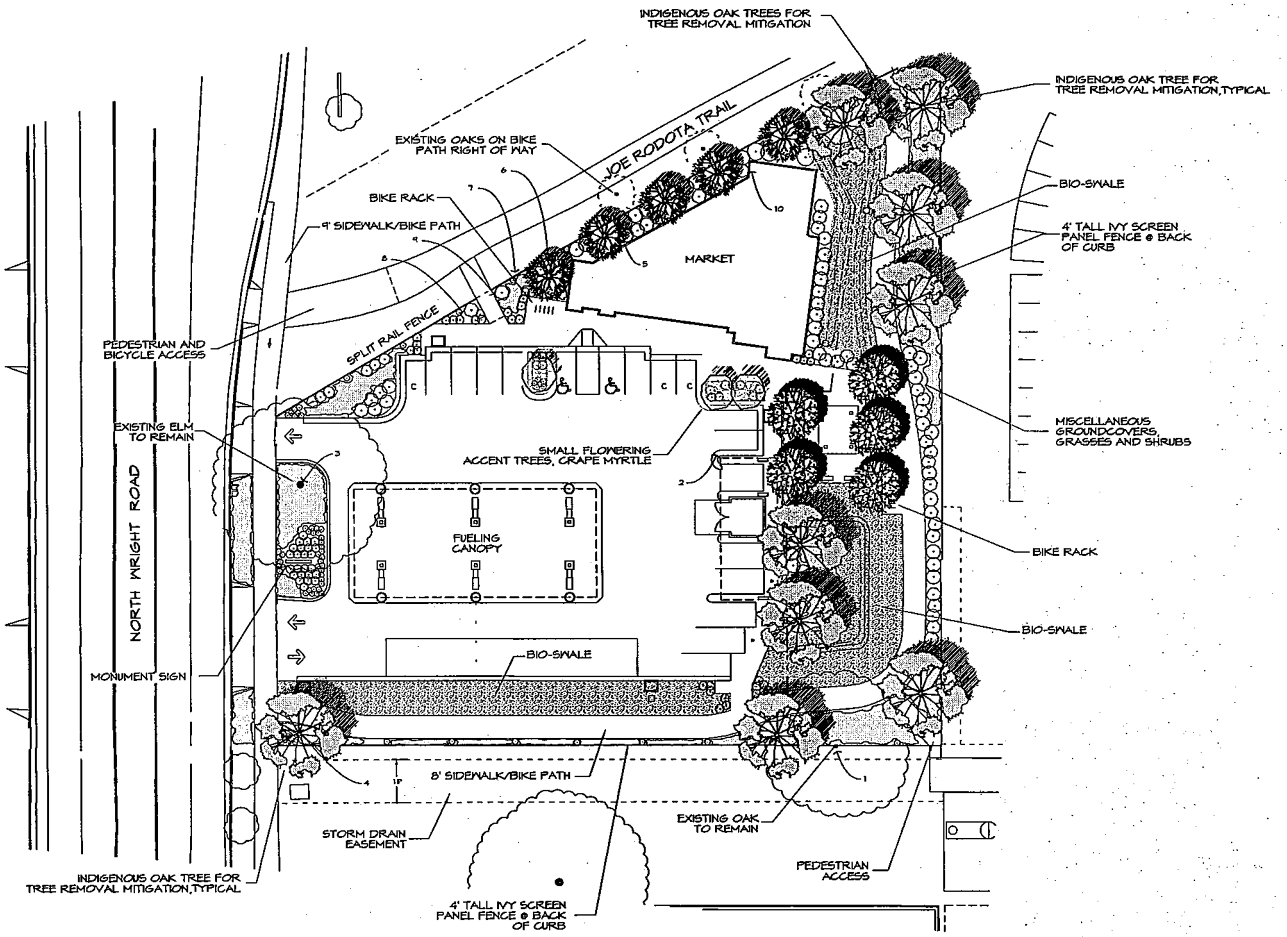
Proposed Total #24 Size Replacement Trees to be Planted in Lieu of #15 Size Trees 22

■ FOR EACH SIX 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 SPECIES, IF APPROVED BY THE DIRECTOR), EACH OF A MINIMUM 15-GALLON CONTAINER SIZE, SHALL BE PLANTED ON THE PROJECT SITE, PROVIDED HOWEVER, THAT AN INCREASED NUMBER OF SMALLER SIZE TREES OF THE SAME GENUS AND SPECIES MAY BE PLANTED IF APPROVED BY THE DIRECTOR, OR A FEWER NUMBER OF SUCH TREES OF A LARGER SIZE IF APPROVED BY THE DIRECTOR. THE VALUE CALCULATION IS BASED ON TREE DIAMETER AT BREAST HEIGHT WITH THE FOLLOWING ARBOREAL REPLACEMENT VALUES:

D.B.H.(INCHES)	$15 SIZE REPLACEMENT TREES
0 - 5	2
6 - 11	4
12 - 17	6
18 - 23	8
24 - 29	10
30 - 35	12
36 - 41	14
42 - 47	16
48 - 53	18
54 - 59	20

■ MULTI-TRUNK TREES DBH SIZE IS CALCULATED BY ADDING THE TOTAL DBH OF ALL TRUNKS FOR A SINGULAR TRUNK SIZE CALCULATION

■ ALL TREES PROPOSED FOR REMOVAL SHALL BE MITIGATED IN ACCORDANCE WITH THE CITY OF SANTA ROSA TREE ORDINANCE, CHAPTER 17-24



ADJACENT INDUSTRIAL STRUCTURE (BLUE STAR GAS)

CONCEPTUAL LANDSCAPE PLAN

0 10 20 40

REGISTERED LANDSCAPE ARCHITECT
DONALD G. MACNAIR
No. 2600
STATE OF CALIFORNIA

MACNAIR LANDSCAPE ARCHITECTURE

CONCEPTUAL LANDSCAPE PLAN

ELM TREE STATION
874 NORTH WRIGHT ROAD
SANTA ROSA, CA

DATE: 9/12/12
JOB: 13-20
SCALE: 1" = 20'
DRAWN: DH
SHEET L-1
SHEET 1 OF 1