BIOLOGICAL RESOURCES ANALYSIS
JAGUAR WAY EXTENSION
TOWN OF WINDSOR, CALIFORNIA

March 11, 2020

Prepared for

Town of Windsor
Engineering Division
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TABLE OF CONTENTS

FIGURES
(At Back of Report)

TABLES
(At Back of Report)

ATTACHMENTS
(At Back of Report)

Attachment A. Town of Windsor Jaguar Way Extension Maps (Options 1, 2, 3), prepared by BKF, dated August 2018

Attachment B. Sheet 1. Draft Aquatic Resources Delineation Map for the Jaguar Way Extension Project Site, prepared by Monk & Associates, Inc., dated September 24, 2019.

Attachment C. *Tree Survey for the Jaguar Way Extension Project*, prepared by Merlin Arborist Group, dated November 9, 2017.

1. INTRODUCTION

Monk & Associates, Inc. (M&A) has prepared this biological resources analysis for the proposed Jaguar Way Extension located in the Town of Windsor, California (the project site) (Figures 1 and 2). 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 the construction of the extension of Jaguar Way (the project) (Attachment A).

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

This biological resources analysis also provides mitigation measures for "potentially significant" and "significant" impacts that could occur to biological resources. Whenever possible, upon implementation, the prescribed mitigation measures would reduce impacts to levels considered less than significant pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code §§ 21000 et seq.; 14 Cal. Code Regs §§ 15000 et seq). Accordingly, this report is suitable for review and inclusion in any review being conducted by the Town of Windsor for the proposed project pursuant to the CEQA.

2. PROPERTY LOCATION AND SETTING

The Jaguar Way Extension project site is located off Windsor Road, north of Windsor High School. The proposed road improvements extend from Windsor Road to Starr Road, as illustrated on Attachment A. A few residences and Keiser Park occur to the north of the project area. The school parking lot and sports fields characterize much of the southern project site boundary. Starr Creek bisects the western end of the project area, with residential housing further to the west on the far side of the creek. Starr Creek Park and additional singles family homes occur to the south of the project area. Figure 3 illustrates the project site limits and the surrounding land use.

3. PROPOSED PROJECT

The Town of Windsor is proposing a new 0.5-mile roadway, Jaguar Way, to provide east/west connectivity between Starr Road on the west and Windsor Road on the east, consistent with the Town's 2040 General Plan. The existing segment of Jaguar Way, accessible from Windsor Road, is partially improved and provides for two lanes of vehicle travel (one in each direction) and lacks sidewalks and bicycle facilities. Currently, an approximately 960-foot segment of Jaguar Way extends to the west from Windsor Road and provides access to Windsor High School to the south of Jaguar Way and single-family residences to the north. The northern edge of the existing Jaguar Way roadway lacks curbs and gutters. On the south side of this segment of Jaguar Way, the edge of roadway is improved with curb, gutters and storm drains. There is an approximately 16-foot-wide planting strip between the southern edge of the Jaguar Way pavement and the existing parking lot of Windsor High School. The planting strip contains mature redwood trees

and lighting. There are four existing driveways off Jaguar Way that provide access to Windsor High School's norther parking lot. Approximately 960 feet west of Windsor Road (at the edge of the High School's ballfields), Jaguar Way narrows to a single lane, with hardpacked gravel surface. This unimproved segment of Jaguar Way extends for an additional 1,200 feet and terminates east of Starr Creek. On the east side of Starr Road, Jaguar Way is unimproved. A narrow, paved segment extends for approximately 200 feet east of Starr Road where it becomes an informal footpath.

The Town of Windsor is proposing to construct an approximately 0.5-mile-long roadway that would fully improve Jaguar Way to its ultimate design width. The proposed Jaguar Way Extension Project (Project) would introduce two lanes of travel for vehicles (one in each direction) and provide pedestrian and bicycle facilities, as well as street trees, landscaping, bioretention and low impact development (LID) facilities, and ancillary improvements. Jaguar Way would be extended from Starr Road on the west to Windsor Road on the east and would include a clear span bridge overcrossing of Starr Creek. The bridge abutments will be located at the top-of-bank on both sides of Starr Creek.

The Town's existing right-of-way for Jaguar Way would be utilized and may require temporary or permanent encroachment onto adjacent properties to accommodate construction. A new three way intersection would be created at Starr Road and would be stop sign controlled at Jaguar Way. The existing signalized intersection at Windsor Road would be retained and improvements would be limited to the western leg of this intersection. After vetting alternatives with public works staff, three unique alternatives were selected for further consideration, as illustrated in Attachment A. Conceptual designs have been developed for the following three options.

Design Option 1: Town Standard

This design is based on the Town's General Plan vision for Jaguar Way and the Town's Street Design Standards, composed of 6 foot wide sidewalks on both sides of the roadway separated by a landscape strip, two 11 foot wide vehicle travel lanes (one in each direction), Class III bicycle routes, and street trees planted within landscape strip which will be used for bioretention. Due to the narrow right-of-way available for Jaguar Way, some modifications to Town standards are required along certain segments of the roadway, including the need to eliminate parking on both sides of Jaguar Way and utilizing contiguous sidewalk east of Starr Creek and West of the high school parking lot.

Design Option 2: Class II (On-Street) Bicycle Lanes

This design proposes a sidewalk only on the south side of Jaguar Way. The sidewalk on the north side of the roadway has been eliminated to allocate space for Class II bicycle lanes in both directions. Design Option 2 provides for one 6 foot wide contiguous sidewalk on the south side of the roadway west of the high school parking lot and a 10 foot wide contiguous sidewalk on the south side of the roadway along the high school parking lot, two 10 foot wide vehicle travel lanes (one in each direction), and two 5 foot wide bicycle lanes (one in each direction). This design provides for Class II bicycle routes (signed, striped, with dedicated bike lane within the right of way).

Design Option 3: Separated Multi-Use Path

This design introduces an off-street multi-use path to be shared by pedestrian and bicycles. The right-of-way would be comprised of two 11-foot wide vehicle travel lanes (one in each direction), and curb separated multi-use path containing an 8-foot wide two-way bicycle lane, a 6 foot wide sidewalk, a one foot separator between the bike and pedestrian travel lanes, and a 6 foot wide bioswale along the southside of Jaguar Way. Bioswale and LID facilities would also be located along the northern ROW. This design provides for a Class I bicycle facility (off-road path). Due to the narrow right-of-way available for Jaguar Way, some modifications to this standard is required along certain segments of the roadway.

The Project includes a bridge overcrossing of Starr Creek. Although the bridge has not been fully designed, for purposes of this analysis it is presumed that the bridge will span Starr Creek with bridge abutments located above the ordinary high water mark, at top-of-bank on each side of Starr Creek. The clear span bridge would introduce approximately 2,000 square feet of impervious surface above Starr Creek and would be supported by wingwalls/bridge abutments approximately 60 feet in length located along each bank. The bridge width would occupy an approximately 40-foot wide cross section comprised of two vehicle travel lanes (one in each direction), pedestrian sidewalk(s), and bicycle facilities.

4. ANALYSIS METHODS

Prior to preparing this biological resource analysis report, M&A researched the most recent version of CDFW's Natural Diversity Database (CNDDB) (RareFind 5 application) (CNDDB 2019). The application 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. 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. M&A also reviewed Merlin Arborist Group's *Tree Survey for the Jaguar Way Extension Project*, dated November 9, 2017. After completing background research, M&A biologists conducted general biological reconnaissance surveys and a wetland delineation on the project site as discussed below.

4.1 General Site Surveys

M&A biologists Ms. Hope Kingma and Ms. Christy Owens conducted a general survey of the project site on October 31, 2017 and September 13, 2019 to record biological resources and to assess the likelihood of resource agency regulated areas on the project site. The first survey involved searching all habitats on the site and recording all plant and wildlife species observed. The second survey was conducted to see if site conditions had changed since the 2017 initial survey. M&A cross-referenced the habitats found on the project site against the habitat requirements of local or regionally known special-status species to determine if the proposed project could directly or indirectly impact such species.

4.2 Wetland Delineation

On October 31, 2017 and September 13, 2019, M&A biologists, Ms. Kingma and Ms. Owens conducted a wetland delineation of the project site using criteria prescribed in the Corps' 1987 *Wetland Delineation Manual* (Corps 1987) and the Corps' *Regional Supplement for the Arid West Region* (Corps 2008). From this field work M&A prepared a Draft Aquatic Resources Delineation Map (Sheet 1) to submit to the Corps for their verification. This map is provided as Attachment B. This map has been submitted to the Corps and the jurisdictional determination is currently pending.

The results of our literature research and field studies are provided in the sections below.

5. RESULTS OF RESEARCH AND PROJECT SITE ANALYSES

5.1 Topography and Hydrology

The project site is essentially level, gently sloping to the west towards Starr Creek which bisects the western end of the project site. Starr Creek is approximately 12 feet wide between Ordinary High Water Marks, and 60 feet across between top-of-bank to top-of-bank. The creek is incised approximately 10 feet below the surrounding grade.

Starr Creek is a tributary of Windsor Creek which is an 8.8-mile long southward-flowing stream in Sonoma County which drains to Mark West Creek and then the Russian River. Starr Creek is an intermittent creek that completely dries in the summer and does not support any perennial pools. Runoff from the paved and unimproved portions of Jaguar Way flow to the Town of Windsor's storm drain system via drain inlets on both the northern and southern edges of Jaguar Way. There is also a topographic low area along the northern edge of the road that supports wetland vegetation, as illustrated on Sheet 1.

5.2 Plant Communities and Associated Wildlife Habitats

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

5.2.1 ANTHROPOGENIC COMMUNITY: LANDSCAPED

The southern project site boundary supports manicured grass lawns and landscape trees along the edge of Windsor High School's parking lot (Figure 3). The lawn is dominated by English plantain (*Plantago lanceolata*), birdfoot trefoil (*Lotus corniculatus*), Dallis grass (*Paspalum dilatatum*), and annual bluegrass (*Poa annua*). Landscape tree species include the non-native tulip tree (*Liriodendron tulipifera*), and cherry plum (*Prunus cerasifera*). Native tree species planted for landscaping include coast redwood (*Sequoia sempervirens*) and valley oak (*Quercus lobata*).

The project site's landscape trees provide perching and nesting habitat for urban-adapted passerine birds (perching birds) such as the house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), Anna's hummingbird (*Calypte anna*), and mourning dove (*Zenaida macroura*), all of which were observed onsite during the surveys.

5.2.2 RUDERAL HERBACEOUS

The project site has a limited amount of ruderal herbaceous habitat along the northern project site boundary. Ruderal (weedy) communities are assemblages of plants that thrive in waste areas, roadsides and other sites that have been disturbed by human activity. Typically, hardpacked soils of roadsides, parking lots, and urban sites support communities of ruderal species. Ruderal vegetation is adapted to high levels of disturbance and persists almost indefinitely in areas with continuous disturbance.

The ruderal habitat on the northern edge of the project site is dominated by non-native grasses and forbs such as Dallis grass, ripgut grass (*Bromus diandrus*), slender wild oat (*Avena barbata*), perennial ryegrass (*Festuca perennis*), Bermudagrass *(Cynodon dactylon*), prickly lettuce (*Lactuca serriola*), summer cottonweed (*Epilobium brachycarpum*), horseweed (*Erigeron canadensis*), sharppoint fluellin (*Kickxia elatine*), wild mustard (*Sinapis arvensis*), wild radish (*Raphanus sativus*), and stinkwort (*Dittrichia graveolens*), among others. Native and non-native trees growing along the northern project boundary include coast live oak (*Quercus agrifolia agrifolia*), valley oak, blue oak (*Quercus douglasii*), Northern California black walnut (*Juglans hindsii*), silver wattle (*Acacia dealbata*), crimson bottlebrush (*Callistemon citrinus*),

Ruderal habitats typically provide suitable environments for common animals that are adapted to living in association with humans. While there is very little opportunity for terrestrial mammals to reside onsite, it can be expected that urban-adapted wildlife species such as raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and striped skunk (*Mephitis mephitis*) would forage on the project site, specifically on the northern boundary where the project site abuts residential properties. Other common wildlife species associated with ruderal communities include Botta's pocket gopher (*Thomomys bottae*) and western fence lizard (*Sceloporus occidentalis*). The mature blue oaks on the northern boundary also provide foraging, perching and nesting habitat for acorn woodpecker (*Melanerpes formicivorus*), American crow (*Corvus brachyrhynchos*), and Eurasian collared-dove (*Streptopelia decaocto*).

5.2.3 SEASONAL WETLANDS

Three topographic depressions were mapped on the northern edge of the project site. These wetlands saturate/inundate from seasonal rainfall and runoff from the surrounding landscape. These wetlands are dominated by Dallis grass, Himalayan blackberry (*Rubus armeniacus*), curly dock (*Rumex crispus*), tall flatsedge (*Cyperus eragrostis*), and rattlesnake grass (*Briza maxima*). Overstory was dominated by Oregon ash (*Fraxinus latifolia*) and valley oak.

There is also a large created wetland adjacent to Starr Creek, on the southwestern portion of the project site (see Sheet 1), that is dominated by tall flatsedge, brown-headed rush (*Juncus phaeocephalus*), Baltic rush (*Juncus balticus ater*), creeping spikerush (*Eleocharis macrostachya*), and pennyroyal (*Mentha pulegium*).

Seasonal wetlands provide a temporary water source for amphibians such as the common Sierran tree frog (*Pseudacris sierra*), to mate, lay eggs, and forage through the winter and early spring months. Seasonal wetlands also provide seasonally available drinking water for local wildlife.

5.2.4 RIPARIAN WOODLAND

Riparian woodland grows along Starr Creek that bisects the western portion of the project site. The riparian corridor averages 130 feet in width along this creek and extends 20 to 30 feet beyond the top-of-bank on both sides of the creek. Residential housing abuts the riparian vegetation on the western side of the creek. Trees that comprise this community consist of native valley oak, coast live oak, California black oak (*Quercus kelloggii*), Arroyo willow (*Salix lasiolepis*), Oregon ash, and Fremont cottonwood (*Populus fremontii fremontii*). The shrub stratum along the creek is dominated by California rose (*Rosa californica*), coyote brush (*Baccharis pilularis consanguinea*), creeping snowberry (*Symphoricarpos mollis*), Himalayan blackberry, and poison-oak (*Toxicodendron diversilobum*), and the herbaceous stratum is comprised of rattlesnake grass, Harding grass (*Phalaris aquatica*), and blue wildrye (*Elymus glaucus*), as well as non-native grasses and forbs similar to the adjacent ruderal herbaceous area described above.

Riparian trees provide nesting opportunities for resident birds and resting/stopover opportunities for migratory bird species. Birds expected or observed in the riparian corridor onsite include bushtit (*Psaltriparus minimus*), Nuttall's woodpecker (*Picoides nuttallii*), California scrub jay (*Aphelocoma californica*), and California towhee (*Pipilo crissalis*). The common, western gray squirrel (*Sciurus griseus*) may frequent the oak trees in search of acorns and will make leaf nests in the trees' branches. Table 2 provides a complete list of wildlife seen and/or heard during the site survey. It is expected that at different times of the year different animals would be found in the riparian woodland on the project site, especially during the spring and fall migration months when Neotropical migrants typically use riparian habitats.

5.3 Wildlife Corridors

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

During construction, wildlife movement through the project area will be temporarily affected. Wildlife exclusion fencing will be installed around the active work areas to prevent wildlife from entering the work areas. Once the project is constructed, the proposed road project will not interfere with the movement of native wildlife. The project site is confined to a narrow, existing

road situated between the high school facilities and private properties to the north. There is restrictive fencing on the north side of the project site that prevents wildlife movement to and from the north. The only true wildlife movement corridor on this project site is Starr Creek and its riparian vegetation. Starr Creek will remain unaffected by the proposed project and will continue to provide the only true wildlife corridor in or near the project site. As such, medium-sized and large mammal movements along this creek will remain unaffected by the proposed project. Finally, the creek's dense and diverse riparian woodland provides important avian habitat that is used seasonally by migrants and year-round by resident birds; this function will remain unaffected. *The project as currently proposed would only result in temporary impacts to wildlife movement through the work area during construction, but will not adversely impact wildlife movement corridors once the project is constructed.*

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 Ranks 1A, 1B, 2A, 2B, 3, and 4 of CNPS' electronic *Inventory* (CNPS 2001). The CDFW recognizes that Ranks 1A, 1B, 2A and 2B of the CNPS inventory contain plants that, in the majority of cases, would qualify for State listing, and CDFW requests their inclusion in EIRs. Plants occurring on CNPS Ranks 3 and 4 are "plants about which more information is necessary," and "plants of limited distribution," respectively (CNPS 2001). Such plants may be included as special-status species on a case by case basis due to local significance or recent biological information (more on CNPS Rank species below);

- migratory nongame birds of management concern listed by 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 CDFW (2019);

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

- Bat Species that are designated on the Western Bat Working Group's (WBWG) Regional Bat Species Priority Matrix as: "RED OR HIGH." This priority is justified by the WBWG as follows: "Based on available information on distribution, status, ecology, and known threats, this designation should result in these bat species being considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment."

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

Federal Endangered or Threatened Species. A species listed as Endangered or Threatened under the FESA is protected from unauthorized "take" (that is, harass, harm, pursue, hunt, shoot, trap) of that species. If it is necessary to take a 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 CDFW prior to initiating the "take."

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

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

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

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

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

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

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

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

6.2 Potential Special-Status Plant Species on the Project Site

Figure 4 provides a graphical illustration of the known CNDDB records for special-status plant 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 plants have been mapped on or adjacent the project site. However, according to the CDFW's CNDDB, a total of nineteen (19) special-status plant species are known to occur in the region of the project site (Table 3). Most of these plants occur in specialized habitats such as valley and foothill grassland, vernal pools, meadows and seeps, coastal scrub, chaparral, and coniferous forest, and since these habitats are absent from the project site, these species can be dismissed from further consideration. In addition, the project site is an existing roadway and the highly disturbed roadside shoulders which have been subjected to intensive uses including paving, filling, and vehicular traffic, and thus, many soils are highly compacted, and it is unlikely that special-status plants would occur. The shallow seasonal wetlands on the northern project site boundary do not provide suitable habitat for special-status plants since these features are construction-related wetlands that were created when Jaguar Way was originally graded and paved.

The project site falls within the geographic region called the Santa Rosa Plain by the USFWS and the Corps. The Santa Rosa Plain has a number of state and federally listed species and there are regulatory agency rules that govern how projects must evaluate impacts to wetlands and listed species. However, per Figure 3 in the USFWS' *Final Santa Rosa Plain Conservation Strategy* (USFWS 2005), the project site is located within an area designated as "Already Developed (No Potential for Impact)" within the Town of Windsor. **Accordingly, the proposed project, which is a roadway improvement project limited to already developed, disturbed, and/or ruderal habitats, will not result in impacts to any special-status or listed plant species, and no mitigation is required.**

6.3 Potential Special-Status Wildlife Species on the Project Site

Figure 5 provides a graphical illustration of the known CNDDB records for special-status wildlife 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 or adjacent to the project site. However, a total of ten (10) special-status wildlife species are known to occur in the region of the project site (Table 4). Of these 10 species, the trees on the project site provide potential nesting habitat for the white-tailed kite (*Elanus leucurus*) and potential roosting habitat for the pallid bat (*Antrozous pallidus*); as such these species are further discussed below. In addition, even though the project site does not provide habitat for the California tiger salamander (*Ambystoma californiense*), a federal and state listed species, due to the sensitivity of this species we discuss it below.

6.3.1 California tiger salamander

The California tiger salamander Sonoma County "Distinct Population Segment" (DPS) is a federally listed endangered species. The project site is located within its known range. The USFWS determined that the Sonoma County DPS is significantly and immediately imperiled by a variety of threats including habitat destruction, degradation, and fragmentation due to urban development, road construction, pesticide drift, collection, and inadequate regulatory mechanisms. In addition, it was determined that this population could face extinction as a result of naturally occurring events (e.g., fires, droughts) due to the small and isolated nature of the remaining breeding sites combined with the small number of individuals in the population. On August 31, 2011, the Final Rule on the Revised Designation of Critical Habitat for the Sonoma County Distinct Population of the California tiger salamander was published (76 FR 54346 54372) (USFWS 2011). Approximately 47,383 acres were designated as critical habitat. ***The project site is not located within the designated critical habitat (Figure 6)***.

On August 19, 2010, the CTS was also state listed as a threatened species under the California Endangered Species Act (CESA). Prior to implementing a project that would result in "take" (i.e., to harm, harass, or kill) of CTS, the USFWS must prepare an incidental take permit pursuant to either Section 7 or Section 10 of the FESA. Similarly, projects that could result in take of CTS also require incidental take authority from the CDFW pursuant to the CESA.

CTS occur in grasslands and open oak woodlands that provide suitable 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. Adult California tiger salamanders have been observed up to 2,092 meters (1.3 miles) from breeding ponds (USFWS 2004). As such, unobstructed migration corridors are an important component of CTS habitat.

In Sonoma County, CTS emerge during the first heavy, warm rains of the year, typically in late November and early December. In most instances, larger movements of CTS do not occur unless it has been raining hard and continuously for several hours. Typically, for larger movements of CTS to occur nighttime temperatures also must be above 48° F (G. Monk and S. Lynch pers. observations). Other factors that encourage larger movements of CTS to their breeding ponds include flooding of refugia (observed by G. Monk in Springtown, east Alameda County in 1997) as occurs after significant rainfall events.

During the spring, summer, and fall months, most known populations of the CTS throughout this species range in California predominately use California ground squirrel (*Spermophilus beechyi*) burrows as aestivation habitat (Jennings and Hayes 1994; G. Monk personal observation). However, in Sonoma County where California ground squirrel populations are scarce to non-existent, subterranean refugia likely include Botta's pocket gopher (*Thomomys bottae*) burrows, deep fissures in desiccated clay soils, and debris piles (e.g., downed wood, rock piles).

Although there are a few California ground squirrels occurring onsite, the most common 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 a natural 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 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, 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 (*Lithobates catesbeiana*), red swamp crayfish (*Procambarus clarkii*), or signal crayfish (*Pacifastacus leniusculus*), almost never constitute suitable breeding habitat.

In most of the range of the CTS, seasonal wetlands that are used for breeding typically must hold water into the month of May to allow enough time for larvae to fully metamorphose. Typically, in Sonoma County pools that are 16 inches or deeper in the peak winter months will remain inundated long enough to provide good breeding conditions for CTS. In dry years, seasonal wetlands, especially shallower pools, may dry too early to allow enough time for CTS larvae to successfully metamorphose. Under such circumstances, desiccated CTS larvae are often found in dried pools. In addition, as pools dry down to very small areas of inundation, CTS larvae become concentrated and are very susceptible to predation. 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*). Mr. Monk has observed 10 and 12 inch-deep pools in Cotati that were not used in dry years by CTS for breeding, and/or where CTS failed to metamorphose successfully from these pools. However, in years exhibiting wet springs, these same drier (shallower) pools would remain hydrated long enough through continual rewetting to allow CTS larvae ample time to successfully metamorphose.

M&A biologists do not believe that this linear roadway project site supports CTS now and is most unlikely to support CTS in the future. There is no likely suitable breeding habitat onsite. The shallow seasonal wetlands do not provide suitable breeding habitat for CTS. CTS typically require pools or ponds that remain inundated into April or May, and seasonal wetlands on the project site are too shallow to hold water at sufficient depth long enough to sustain a CTS reproductive cycle.

It is unlikely that the project site provides over-summering habitat since the project site is isolated from extant (i.e., still existing) occupied CTS habitat. The closest CNDDB record for this species is located 5.1 miles south of the project site (CNDDB Occurrence No. 360) at the Alton Lane Conservation Site where numerous larvae and adults were observed between 1996 and 2015 within constructed wetlands (Figure 10). The Alton Lane CTS population could not migrate to the project site. The known dispersal distance of the CTS generally is recognized as 1.3 miles. In addition, there are industrial and commercial properties and multiple heavily trafficked thoroughfares that occur between the project site and the closest CNDDB occurrences. The conclusion that the Alton Lane CTS population would not be able to migrate to/from the project site is supported by the USFWS' 2016 Recovery Plan for the Santa Rosa Plain (USFWS 2016) which states that *urbanization and conversion to intensive agriculture can create permanent barriers that can isolate California tiger salamanders and prevent them from moving to new breeding habitat, or prevent them from returning to their breeding ponds or underground burrow sites. Roads and highways also create permanent physical obstacles and increase habitat*

fragmentation. Road construction can reduce or completely eliminate the viability of a breeding site.

Implementation of the project will not result in direct impacts to CTS. This conclusion is supported by how the USFWS has otherwise designated the area of the project site. The project site is located outside of the Santa Rosa Plain California tiger salamander Core and Management Areas identified in the USFWS' 2016 Recovery Plan for the Santa Rosa Plain (USFWS 2016) (Figure 7). In addition, per Figure 3 in the USFWS *Final Santa Rosa Plain Conservation Strategy* (USFWS 2005), the project site is located within an area designated as "Already Developed (No Potential for Impact)" within the Town of Windsor. Finally, the project site does not fall within CTS critical habitat designated by the USFWS (Figure 6). **Accordingly, the proposed project will not result in impacts to CTS, and no mitigation is required.**

6.3.2 WHITE-TAILED KITE

The white-tailed kite is a "Fully Protected" species under the California Fish and Game Code (§3511). Fully protected birds may not be "taken" or possessed (i.e., kept in captivity) at any time. It is also protected under the federal Migratory Bird Treaty Act (50 CFR 10.13). The white-tailed kite is typically found foraging in grassland, marsh, or cultivated fields where there are dense-topped trees or shrubs for nesting and perching. They nest in a wide variety of trees of moderate height and sometimes in tall bushes, such as coyote bush. 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 closest CNDDB record for white-tailed kite is located 3.7 miles west of the project site (CNDDB Occurrence No. 105). The mature trees in the project area provide suitable nesting habitat. **Accordingly, impacts to white-tailed kite are regarded as potentially significant pursuant to the CEQA.** With implementation of the avoidance and mitigation measures listed in the "Impacts and Mitigations" section below, impacts to the white-tailed kite can be mitigated to a level considered less than significant pursuant to the CEQA.

6.3.3 PALLID BAT

The pallid bat (*Antrozous pallidus*) is a California species of special concern. It has no federal status. This bat is a locally common species of low elevations in California. It occurs in a wide variety of habitats. It is most common in open, dry habitats with rocky areas for roosting. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Roosts must protect bats from high temperatures. Night roosts may be in more open sites such as porches and open buildings. This species may use old buildings project site for roost sites. Before any building is removed/remodeled, a focused survey would need to be conducted to determine its presence or absence.

The closest known occurrence for pallid bat to the project site is a 2004 CNDDB record located 5.0 miles southwest of the project site (CNDDB Occurrence No. 77). The project site has several mature valley and blue oaks that could provide potential roosting habitat for this special-status bat. **Accordingly, impacts to the pallid bat are regarded as potentially significant pursuant to the CEQA**. With implementation of the avoidance and mitigation measures listed in the "Impacts and Mitigations" section below, impacts to the pallid bat can be mitigated to a level considered less than significant pursuant to the CEQA.

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 its relevance to the proposed project is discussed.

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 "reasonably certain to occur."

Section 9 applies to any person, corporation, federal agency, or any local or State agency. If "take" of a listed species (other than a plant 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 such as the Corps), or through Section 10 of FESA which requires preparation of a Habitat Conservation Plan (HCP) (for state and local agencies, or individuals, and projects without a federal "nexus"; for example, projects that do not need a Corps permit).

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

The Section 7 consultation process only applies to actions taken by federal agencies that are considering authorizing discretionary projects. Section 7 is by and between the NMFS and/or the USFWS and the federal agency contemplating a discretionary approval (that is, the federal "action agency," for example, the Corps or the Federal Highway Administration). Private parties, cities, counties, etc. (i.e., applicants) may participate in the Section 7 consultation *at the discretion of the federal agencies conducting the Section 7 consultation*. The Section 7 consultation process is triggered by a determination of the "action agency" – that is, the federal agency that is carrying out, funding, or approving a project - that the project "may affect" a listed species or critical habitat. If an action is likely to adversely affect a listed species or designated critical habitat, formal consultation between the nexus agency and the USFWS/NMFS is required. As part of the formal consultation, the USFWS/NMFS may resolve any issues informally with the nexus agency or may prepare a formal Biological Opinion assessing whether the proposed action would be likely to result in "jeopardy" to a listed species or if it could adversely modify designated critical habitat. If the USFWS/NMFS prepares a Biological Opinion it will contain either a "jeopardy" or "non-jeopardy" decision. If the USFWS/NMFS concludes that a proposed project would result in adverse modification of critical habitat or would jeopardize the continued existence of a federal listed species (that is, it will issue a jeopardy decision), the nexus federal agency would be most unlikely to authorize its discretionary permit. If the USFWS/NMFS prepares a "non-jeopardy" Biological Opinion, the nexus federal agency may authorize the discretionary permit making all conditions of the Biological Opinion conditions of its discretionary permit. A non-jeopardy Biological Opinion constitutes an

"incidental take" permit that allows applicants to "take" federally listed species while otherwise carrying out legally sanctioned projects.

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

7.1.1 Responsible Agency

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

7.1.2 Applicability to the Proposed Project

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

Several federally listed plant and wildlife species are known to occur in the region of the project site (Tables 3 and 4). The project site falls within the geographic region called the Santa Rosa Plain by the USFWS and the Corps. The Santa Rosa Plain has a number of state and federally listed species and there are regulatory agency rules that govern how projects must evaluate impacts to wetlands and listed species. However, per Figure 3 in the USFWS *Final Santa Rosa Plain Conservation Strategy* (USFWS 2005), the project site is located within an area designated as "Already Developed (No Potential for Impact)" to federally listed plants and CTS. Finally, the project site does not fall within CTS critical habitat designated by the USFWS (Figure 6). The project site is an existing road alignment that will be widened into adjacent ruderal habitat, landscaped fields, and man-created wetlands; these habitats do not support federally listed species. **Accordingly, the proposed project will not result in impacts to any federally listed plant or animal species, and thus, an incidental take permit pursuant to Section 7 or Section 10 is not required, and no mitigation is warranted.**

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.).

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

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

7.2.1 Applicability to The Proposed Project

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

7.3 **California Endangered Species Act**

7.3.1 Section 2081 of the California 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), CDFW considerations pursuant to CESA are limited to those actions that would result in the direct take of a listed species.

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

and/or USFWS (if it is a 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). CDFW will issue an incidental take permit only if:

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

If an applicant is preparing a 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 CDFW staff in development of the HCP. If a final Biological Opinion (federal action) has been issued for the project pursuant to Section 7 of the 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.

Fish and Game Code §2080.1 allows an applicant who has obtained a "non-jeopardy*"* federal Biological Opinion pursuant to Section 7 of the FESA, or who has received a federal 10(a) permit (federal incidental take permit) pursuant to the FESA, to submit the federal opinion or permit to CDFW for a determination as to whether the federal document is "consistent" with CESA. If after 30 days CDFW determines that the federal incidental take permit is consistent with state law, and that all state listed species under consideration have been considered in the federal Biological Opinion, then no further permit or consultation is required under CESA for the project. However, if CDFW determines that the federal opinion or permit is not consistent with CESA, or that there are state listed species that were not considered in the federal Biological Opinion, then the applicant must apply for a state CESA permit under Section 2081(b). Section 2081(b) is of no use if an affected species is state-listed, but not federally listed.

State and federal incidental take permits are issued on a discretionary basis, and are typically only authorized if applicants are able to demonstrate that impacts to the listed species in question are unavoidable, and can be mitigated to an extent that the reviewing agency can conclude that the proposed impacts would not jeopardize the continued existence of the listed species under

review. Typically, if there would be impacts to a listed species, mitigation that includes habitat avoidance, preservation, and creation of endangered species habitat is necessary to demonstrate that projects would not threaten the continued existence of a species. In addition, management endowment fees are usually collected as part of the agreement for the incidental take permit(s). The endowment is used to manage any lands set-aside to protect listed species, and for biological mitigation monitoring of these lands over (typically) a five-year period.

7.3.2 APPLICABILITY TO THE PROPOSED PROJECT

Several state-listed plant and wildlife species are known to occur in the region of the project site (Tables 3 and 4); however, no state-listed plant or animal species would likely be impacted by the proposed project.

The project site does not fall within the CTS' range on the Santa Rosa Plain (see Figure 3 in the USFWS *Final Santa Rosa Plain Conservation Strategy* (USFWS 2005)). The CDFW's CNDDB (RareFind) has the closest known CTS record to the project site located at the Alton Lane Conservation Site, which is located 5.1 miles to the south of the project site. There are densely urbanized landscapes and major roads between the closest extant CTS records and the project site that constitute effective geographic barriers to CTS movements to the project site. As such, CTS are not expected to occur on the project site and there would be no take of CTS from implementation of the project. Thus, as there would be no "take" of CTS, an incidental take permit is not warranted from the CDFW pursuant to the CESA. ***No impacts to state-listed and any other special-status plant or animal species, or candidates for listing, are expected from project implementation***.

7.4 California Fish and Game Code § 3503, 3503.5, 3511, and 3513

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

All raptors (that is, hawks, eagles, owls) their nests, eggs, and young are protected under California Fish and Game Code (§3503.5). Additionally, "fully protected" birds, such as the white-tailed kite 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.

7.4.1 APPLICABILITY TO THE PROPOSED PROJECT

Raptors that could be impacted by the project include white-tailed kite, red-tailed hawk (*Buteo jamaicensis*), great horned owl (*Bubo virginianus*), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), and red-shouldered hawks (*Buteo lineatus*), and common birds such as mourning dove, California scrub jay, and house finch, among others. Preconstruction nesting surveys would have to be conducted to ensure that there is no direct take of nesting birds including their eggs, or young. Any active nests that were found during preconstruction surveys would have to be avoided by the project. Suitable non-disturbance buffers would have to be established around nest sites until the nesting cycle is complete. Please

review specific requirements for avoidance of nest sites for nesting bird species in the Impact and Mitigation section.

7.5 Santa Rosa Plain Conservation Strategy (USFWS 2005)

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

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

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

a.) Projects within 1.3 miles of a known CTS breeding site, and likely to impact CTS breeding and/or upland habitat; or

b.) Projects beyond 1.3 miles from a known CTS breeding site, but within the "Potential for Presence of California tiger salamander" or "Potential for Presence of California tiger salamander and Plants"; or

c.) Projects where "Presence of California tiger salamander is Not Likely".

Different mitigation ratios are recommended for each of these categories.

The *Conservation Strategy* prescribes mitigation requirements for impacts in specified geographic areas. Figure 3 of the Conservation Strategy indicates geographic areas where projects may impact FESA protected plant and animal species. It also identifies areas that the USFWS concluded are already developed and thus, where species mitigation is not warranted.

7.5.1 Applicability to the Proposed Project

The project site is located in an area of the Santa Rosa Plain that is designated in Figure 3 of the *Conservation Strategy* (USFWS 2005) as "Already Developed (No Potential for Impact)" in the Town of Windsor. **As such, no mitigation for CTS or listed plants will be required for this project.**

7.6 USFWS Recovery Plan for the Santa Rosa Plain (USFWS 2016)

In December 2016, the USFWS adopted a formal Recovery Plan for the Santa Rosa Plain (Recovery Plan) addressing recovery efforts necessary to protect and otherwise eventually recover the federally listed Sonoma County Distinct Population Segment of CTS and three vernal pool plants: *Blennosperma bakeri* (Sonoma sunshine)*; Lasthenia burkei* (Burke's goldfields)*; Limnanthes vinculans* (Sebastopol meadowfoam) (USFWS 2016). All four species

are confined almost entirely to the Santa Rosa Plain. The Recovery Plan and its objectives are implemented through cooperative CEQA lead agencies, and through federal nexus agency consultations (e.g., Corps consultations) with the USFWS via Section 7 of the FESA. Any federal nexus agency that consults with the USFWS pursuant to Section 7 will obtain a letter of no effect or a Biological Opinion that provides or denies "incidental take authority." Any conditions of a Biological Opinion issued to the Corps for a pending project are to become conditions of the Corps' permit authorization.

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

The USFWS has determined that the primary threats to the three listed vernal pool plants and the CTS on the Santa Rosa Plain is the reduction and fragmentation of habitat due to urban development, agricultural land conversion, and habitat degradation that modifies vernal pool hydrology, and colonization of seasonal wetlands by competitive invasive plants. Consequently, the Recovery Plan focuses on these threats. In order to downlist or delist the four species that are imperiled in the Santa Rosa Plain the threats to the species' habitat must be reduced or eliminated. The USFWS criteria for downlisting are based upon preservation of extant vernal pools systems and attending uplands that support wetland complexes. The USFWS has segmented the Santa Rosa Plain into "Core" and "Management Areas" (Figures 5-7 *In* USFWS 2016) where species preservation, and habitat enhancement and management must occur to recover these four listed species. Core areas comprise the heart of the species historical (and current) range and represent central blocks of contiguously occupied habitat that function to allow for dispersal, genetic interchange between populations, and metapopulation dynamics. Management areas are occupied habitat peripheral to the species' Core areas.

7.6.1 APPLICABILITY TO THE PROPOSED PROJECT

The project site is located outside of the Santa Rosa Plain CTS Core and Management Areas identified in the USFWS' 2016 Recovery Plan for the Santa Rosa Plain (Figure 7)(USFWS 2016). While the project site is located within Core and Management Areas for *Blennosperma bakeri, Lasthenia burkei,* and *Limnanthes vinculans*, there would be no impacts to these plants from the proposed project due to an absence of suitable habitat. ***The proposed project will result in impacts to Corps-jurisdictional areas. As such, the applicant must acquire a permit from the Corps. However, since the project site will not impact any FESA listed species, FESA Section 7 consultation by and between the Corps and the USFWS is not warranted for this proposed project.***

7.7 TOWN OF WINDSOR TREE PRESERVATION AND PROTECTION ORDINANCE

The Town of Windsor Code, Chapter 27.36, pertains to the protection of trees within the Town of Windsor and provides regulations for the protection, preservation, and maintenance of native

oak trees and trees of significance, groves and stands of mature trees, and mature trees in general. It is also the intent of the chapter to perpetuate these trees through the replacement of trees removed as a result of a new development.

As stated in the *Tree Preservation and Protection Ordinance*: A protected tree (Chapter 27.36.040) is any of the following:

A. The following native oak trees six inch or greater:
Black Oak (*Quercus kelloggii*)
Valley Oak (*Quercus lobata*)
Blue Oak (*Quercus douglasii*)
Interior Live Oak (*Quercus wislizenii*)
Coast Live Oak (*Quercus agrifolia*)
Oracle Oak (*Quercus x morehus*)
Oregon Oak (*Quercus garryana*)
Chase Oak (*Quercus x chaseii*)

As well as the following trees:
California Buckeye *(Aesculus californica*) six inch or greater
California Bay (*Umbellularia californica*) twelve inch or greater

Size is trunk diameter measured at a height of 4.5 feet from surrounding grade. Multiple trunk trees must possess at least one trunk with the above diameter (based on species) to be considered protected. (Smaller trees may also be protected under special circumstances. On projects where Planning Commission/Town Council approval is not required, determination will be made at the direction of the Planning Director.)

B. Heritage trees as identified by Council resolution 3-124

C. Significant groves or stands of trees. On projects where Planning Commission/Town Council approval is not required, determination will be at the direction of the Planning Director.

D. Mature trees located on a parcel of one acre or more. Smaller trees may also be protected under special circumstances. On projects where Planning Commission/Town Council approval is not required, determination will be at the direction of the Planning Director.

E. Any tree required, to be planted or preserved, as environmental mitigation for a discretionary permit.

F. Landmark trees are trees identified during the development process and for which preservation is encouraged during the design phase of the project by keeping development and construction activity outside the designated Tree Protection Zone (TPZ). An arborist report prepared by a Town approved arborist shall be prepared assessing the structural integrity and health of the tree(s). Project developers should be aware of their significance and understand that special measures, unusual protection techniques, and more rigid preservation standards will apply. Development density and project layout may be affected where landmark trees are located

in order to protect them. Over-mature, senescent, or ancient trees may not qualify for preservation if they are unstable, hazardous, in poor health, or otherwise unsuited for preservation in an urban setting. However, if older larger trees are not in optimum condition that in itself would not be a reason for removal. (Revised 04/18/07, ORD. 2007-214) Landmark trees shall be designated on the development plan for preservation and protection. When a tentative map is part of the development entitlement the conditions shall include the following notes to be recorded on the map:

1. The location of the tree shall be identified by lot/parcel number.
2. The Tree is subject to all regulations of the Tree Protection Ordinance.
3. Maintenance shall be completed in accordance with the Tree Technical Manual.
4. Tree Removal is subject to Planning Commission review and action.
5. Standard Tree Protection Notes including references to the arborist report and supplemental reports shall be included.

7.7.1 APPLICABILITY TO THE PROPOSED PROJECT

A *Tree Survey for the Jaguar Way Extension Project* was prepared by Merlin Arborist Group, dated November 9, 2017 (Attachment C). A total of 128 trees were inventoried within the project area and most of the trees meet the definition of a Protected Tree pursuant to the Ordinance. The total number of trees impacted by the proposed project will be minimized to the extent possible through careful avoidance and project planning. Based on the Jaguar Way Extension Maps (Options 1, 2, and 3), the total number of trees to be removed will vary, depending on the Option selected, as illustrated in Attachment A. Option 1 will impacts approximately 95 trees, Option 2 will impact approximately 80 trees, and Option 3 will impact approximately 75 trees. As such, the Ordinance will be consulted and the Town of Windsor will comply with all requirements therein and as specified in the Town's Tree Technical Manual.

8. TOWN OF WINDSOR GENERAL PLAN AND EIR (2040)

The Windsor General Plan that was adopted on April 4, 2018 identifies the Town's vision for the future and provides a framework that will guide decisions on growth, development, and conservation of natural resources and agriculture in a manner consistent with the quality of life desired by the Town's residents and businesses. To ensure that this desired vision is realized, the General Plan has been designed to be internally consistent and cross-referenced with other documents, including the Town's Zoning Ordinance.

The Town of Windsor 2040 General Plan EIR reviewed potentially significant environmental effects resulting from plan implementation and developed measures and policies to mitigate impacts. Nonetheless, significant and unavoidable impacts were determined to occur under the General Plan. Therefore, the Town adopted a statement of overriding considerations, which balance the merits of approving the plan despite the significant environmental effects. The effects identified as significant and unavoidable in the General Plan EIR are:

- Conversion of active agricultural land to non-agricultural land uses.
- Increases in traffic at certain locations, which have the potential to cause queuing beyond acceptable levels at certain intersections, resulting in traffic related hazards.

The Biological Resources chapter discusses the policies to protect unique and sensitive biotic features such as rare and endangered plant and animal species, dense oak woodlands, and vernal pools, and encourage sensitive design in these areas. Applicable policies are listed below:

Policies
ER-6.1 Protection of Biological and Ecological Resources. The Town shall protect significant biological and ecological resources in Windsor, including:

a. Wetlands, in particular, high value wetlands
b. Rare, threatened, or endangered species
c. Vulnerable habitats
d. Vernal pools
e. Oak groves and woodlands
f. Riparian woodlands
g. Heritage trees

ER-6.4 Compliance with State and Federal Wetland Regulations. The Town shall ensure that development projects that would fill wetlands or vernal pools conform with applicable State and Federal regulations regarding the protection of these resources.

ER-6.5 Applicant Mitigation Obligation. The Town shall ensure the protection or restoration of sensitive biological resources that is required as a condition or mitigation of a development project is closely monitored at the cost of the project applicant to determine compliance with the condition or mitigation and to evaluate the effectiveness of the measure.

ER-6.7 Preservation of Oak Woodlands. The Town shall encourage the preservation of oak woodlands and significant stands of oaks and heritage trees. Development plans should indicate preservation of these resources to the fullest extent feasible and restrict pavement and other encroachments within the root zones of oak trees to ensure their long-term survival. Should removal be necessary, the project applicant shall be required to plant replacement trees or removal can be done through the payment of an in-lieu fee.

ER-6.8 Tree Protection During Construction. The Town shall require proper measures be implemented to ensure the long-term survival of trees designated in the Tree Preservation and Protection Ordinance during construction activities. Fencing around individual trees or groups of trees shall be required to protect them from compaction and mechanical injury.

8.1.1 APPLICABILITY TO THE PROPOSED PROJECT

The Jaguar Way Extension Project is consistent with the Town of Windsor 2040 General Plan, which identifies Jaguar Way as a new two-lane Crosstown street between Starr Road and Windsor Road. Jaguar Way in addition to other planned future roadways identified in the Town's 2040 General Plan provides accommodation for projected year 2040 traffic volumes due to build out of the General Plan.

Per Policy ER-6.1 Protection of Biological and Ecological Resources, impacts to riparian woodlands and Heritage trees will be minimized to the extent possible. The wetlands that will be

impacted by the proposed project are not considered to be "high value wetlands" since these features are construction-related wetlands that were created when Jaguar Way was originally graded and paved. The project will not result in impacts to rare, threatened, or endangered species, vulnerable habitats or vernal pools.

Per ER-6.4 Compliance with State and Federal Wetland Regulations, the Town will ensure conformance with applicable State and Federal regulations for any impacts to waters of the U.S. or State.

Per ER-6.5 Applicant Mitigation Obligation, the Town will ensure compliance with any mitigation requirement stipulated in the resource agency permits.

Per ER-6.8 Tree Protection During Construction, the Town will implement proper measures to ensure the long-term survival of trees designated in the Tree Preservation and Protection Ordinance during construction activities. Fencing around individual trees or groups of trees shall be required to protect them from compaction and mechanical injury. Trees impacted by the project will be mitigated per the Tree Preservation and Protection Ordinance.

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

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

9.1 U.S. Army Corps of Engineers Jurisdiction and Permitting

9.1.1 Section 404 of the Clean Water Act

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

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

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 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.

9.1.1.1 Permitting Corps Jurisdictional Areas

To remain in compliance with Section 404 of the CWA, project proponents and property owners (applicants) are required to be permitted by 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 conduct a "jurisdictional determination") to confirm the extent of area falling under their jurisdiction prior to authorizing any permit for that project area. Typically, at the time the jurisdictional determination is conducted, applicants (or their representative) will discuss the 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, the Corps normally provides two alternatives for permitting impacts to the type of waters of the United States found in the project area. The first alternative would be to use Nationwide Permit(s) (NWP). 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 public interest review procedures (i.e., public notice and receipt of public comments) and must contain an "alternatives analysis" that is prepared pursuant to Section 404(b) of the Clean Water Act (33 U.S.C. 1344(b)). The alternatives analysis is also typically reviewed by the federal EPA and thus brings another resource agency into the permitting framework. Both the Corps and EPA take the initial viewpoint that there are practical alternatives to the proposed project if there would be impacts to waters of the U.S., and the proposed permitted action is not a water dependent project (e.g., a pier or a dredging project). Alternative analyses therefore must provide convincing reasons that the proposed permitted impacts are unavoidable. Individual Permits may be available for use in the event that discharges into regulated waters fail to meet conditions of NWP(s).

NWPs 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 NWP, if certain conditions are met, the specified activities can take place without the need for an individual or regional permit from the Corps (33 CFR, Section 235.5[c][2]). In order to use NWP(s), a project must meet 27 general nationwide permit conditions, and all specific conditions pertaining to the NWP being used (as presented at 33 CFR Section 330, Appendices A and C). It is also important to note that pursuant to 33 CFR Section 330.4(e), there may be special regional conditions or modifications to NWPs that could have relevance to individual proposed projects. Finally, pursuant to 33 CFR Section 330.6(a), Nationwide permittees may, and in some cases must, request from the Corps confirmation that an activity complies with the terms and conditions of the NWP intended for use (*i.e.,* must receive "verification" from the Corps).

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) from project area development. Therefore, it is incumbent upon applicants that propose to impact Corps regulated areas to submit a mitigation plan that demonstrates that impacted regulated areas would be recreated (*i.e.,* impacts would be mitigated). Typically, the Corps requires mitigation to be "in-kind" (i.e., seasonal wetlands would be filled, mitigation would include seasonal wetland mitigation), and at a minimum of a 1:1 replacement ratio (i.e., one acre or fraction there of recreated for each acre or fraction thereof lost). Often a 2:1 replacement ratio is required if the Permittee is responsible for the mitigation. In some cases, the Corps allows "out-of-kind" mitigation if the compensation site has greater value than the impacted site. Finally, there are many Corps approved wetland mitigation banks where wetland mitigation credits can be purchased by applicants to meet mitigation compensation requirements. Mitigation banks have defined service areas and the Corps may only allow their use when a project would have minimal impacts to wetlands.

9.1.2 APPLICABILITY TO THE PROPOSED PROJECT

A wetland delineation was conducted by M&A staff according to the 1987 *Corps Wetland Delineation Manual* (Corps 1987) and the *Regional Supplement to the Corps' Wetland Delineation Manual: Arid West Regio*n (Corps 2008). A request for a jurisdictional determination and the Draft Aquatic Resources Delineation Map (Sheet 1) (Attachment B) have been submitted to the Corps and the jurisdictional determination is currently pending. Once that map is confirmed, the full extent of waters of the United States will be known and the extent of impacts to regulated areas ascertained. Since at this time the RWQCB does not have a formal method for technically defining what constitutes waters of the state, M&A expect that the

RWQCB should remain consistent with the Corps' determination. Starr Creek and the seasonal wetlands identified on the project site likely fall under the Corps' jurisdiction as waters of the United States pursuant to Section 404 of the CWA.

9.2 California Regional Water Quality Control Board (RWQCB)

9.2.1 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 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. Where a project will result in dredge or fill of non-federal waters of the State, the RWQCB will authorize those fills through waste discharge requirements issued under the Porter Cologne Water Quality Control Act.

On April 2, 2019, the State Water Resources Control Board adopted a state-level definition of "wetlands,' which definition is broader than the federal definition in that unvegetated areas may be considered a wetland water of the State. As a part of the same policy, the Water Board adopted permit procedures and standards governing the discharge of dredged or fill material into wetlands and other waters of the State. The policy includes, among other things, requirements for analyses to identify the least environmentally damaging practicable alternative (LEDPA) and compensatory mitigation standards including a minimum 1:1 ratio for wetlands and streams, and full functional replacement of all waters on top of this minimum where applicable. The policy, which will govern both Section 401 certifications and WDRs, is scheduled to become effective nine months following the completion of review by the California Office of Administrative Law.

9.2.2 Applicability to the Proposed Project

Since the RWQCB does not have a formal method for technically defining what constitutes waters of the State, M&A expect that the RWQCB should remain consistent with the Corps' determination. Therefore, if the Corps determines there are a specified number of acres of wetland or other waters within the project site boundaries, the RWQCB will likely concur. Any Section 404 permit authorized by the Corps for the project would be inoperative without also obtaining authorization from the RWQCB pursuant to Section 401 of the Clean Water Act (i.e., without obtaining a certification of water quality).

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. The RWQCB permit will also likely address the clear span bridge and any associated impacts to riparian vegetation. 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.

9.2.3 PORTER-COLOGNE WATER QUALITY CONTROL ACT

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

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

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

The RWQCB requires complete pre- and post-development Best Management Practices Plan (BMPs) of any portion of the project site that is graded. 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 the project plans to ensure that there are no impacts to downstream receiving waters. The SWMP will be submitted to RWQCB for approval.

9.2.4 APPLICABILITY TO THE PROPOSED PROJECT

If the Corps determines there are waters of the U.S. and/or isolated waters of the State, the RWQCB would have jurisdiction over these areas 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. Please note that any isolated wetlands defined by the Corps on the project site, that are not regulated by the Corps pursuant to the SWANCC decision, would still be regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act.

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 Town of Windsor 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.

All stormwater runoff currently flows into the Town's existing storm drain system. It is expected that the project will utilize the existing storm drain system; however, pre-treatment of stormwater is required prior to release into the Town's storm drain system. Additionally, during project construction it is important for the project proponent to have the components of a SWPPP and a SWMP in place; these documents are typically prepared by the project civil engineer.

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

10.1 Construction General Permit

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

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

1. Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies 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. Achieve quantitatively-defined (i.e., numeric) pollutant-specific discharge standards, and conduct much more rigorous monitoring based on the project's projected risk level.

3. Perform inspections of all BMPs.

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

Types of Construction Activity Covered by the Construction General Permit

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

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

Construction activity does not include:

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

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

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

Pursuant to the CWA, the RWQCB regulates construction discharges under the National Pollutant Discharge Elimination System (NPDES). The project sponsor of construction or other activities that disturb more than 1 acre of land must obtain coverage under NPDES Construction General Permit Order 2009-0009-DWQ, administered by the RWQCB[1].

10.1.1 APPLICABILITY TO THE PROPOSED PROJECT

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

11. STORM WATER LOW IMPACT DEVELOPMENT (SWLID)

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

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

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

The SWLID is formally defined as:

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

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

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

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

11.1 Projects That Trigger Requirements

Geographic Areas

The requirements set forth in this SWLID Design Manual apply to projects within the jurisdiction of City of Santa Rosa, City of Healdsburg, Town of Windsor, City of Cotati, City of Sebastopol, City of Cloverdale, City of Ukiah, and City of Rohnert Park as well as the portions of the County of Sonoma as shown in Attachment C of the NPDES MS4 Permit Order No. R1-2015-0030.

This SWLID manual does not apply to the areas south of the Russian River/Laguna De Santa Rosa watershed boundary, including portions of Petaluma, Sonoma, and the southern portion of the County of Sonoma as they are outside the jurisdiction of the North Coast RWQCB and have distinct design requirements.

Project Triggers and Exemptions

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

Impervious Surface

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

Site Determination

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

11.1.1 Applicability to the Proposed Project

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

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

11.2 California Department of Fish and Wildlife Protections

11.2.1 Section 1602 of California Fish and Game Code

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

(1) CDFW receives written notification regarding the activity in the manner prescribed by CDFW. The notification shall include, but is not limited to, all of the following:
(A) A detailed description of the project's location and a map.
(B) The name, if any, of the river, stream, or lake affected.

(C) A detailed project description, including, but not limited to, construction plans and drawings, if applicable.
(D) A copy of any document prepared pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.
(E) A copy of any other applicable local, state, or federal permit or agreement already issued.
(F) Any other information required by CDFW" (Fish & Game Code 2014).

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

Please also note that while not stated in the regulations above, CDFW typically considers its jurisdiction to include riparian vegetation (that is, the trees and bushes growing along the stream). Thus, any proposed activity in a natural stream channel that would substantially adversely affect an existing fish and/or wildlife resource, including its riparian vegetation, would require entering into a Streambed Alteration Agreement (SBAA) with CDFW prior to commencing with work in the stream. However, prior to authorizing such permits, CDFW typically reviews an analysis of the expected biological impacts, any proposed mitigation plans that would be implemented to offset biological impacts and engineering and erosion control plans.

11.2.2 Applicability to The Proposed Project

The proposed clear span bridge (road crossing) over Starr Creek and any associated impacts to riparian vegetation would require a SBAA with CDFW. The final design of the clear span bridge is unknown at the time of this writing, but the project will apply for the SBAA, and any conditions or stipulations in the SBAA will be implemented by the project.

12. 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.

12.1.1 APPLICABILITY TO THE PROPOSED PROJECT

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

13. IMPACTS ANALYSIS

The criteria used in assessing impacts to Biological Resources is presented below.

13.1 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.

13.1.1 THRESHOLDS OF SIGNIFICANCE

13.1.1.1 Plants, Wildlife, Waters

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

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.

- Have a substantial adverse effect on federally protected "wetlands" as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

13.1.1.2 Waters of the United States and State.

Pursuant to Section 404 of the CWA (33 U.S.C. 1344), the 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.

13.1.1.3 Stream Channels

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

14. IMPACT ASSESSMENT AND PROPOSED MITIGATION

In this section we discuss potential impacts to sensitive biological resources including protected trees, 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 the Jaguar Way Extension Maps (Options 1, 2, and 3), as illustrated in Attachment A, prepared by BKF (dated August 2018).

14.1 Impact BIO-1. Development of the Project Would Have a Significant Impact on Trees (Significant).

A *Tree Survey for the Jaguar Way Extension Project* was prepared by Merlin Arborist Group, dated November 9, 2017 (Attachment C). A total of 128 trees were inventoried within the project area and many of the trees meet the definition of a Protected Tree pursuant to the Ordinance. The total number of trees impacted by the proposed project will be minimized to the extent possible through careful avoidance and project planning.

Based on the Jaguar Way Extension Maps (Options 1, 2, and 3), the total number of trees to be removed will vary, depending on the Option selected, as illustrated in Attachment A. Option 1 will impact approximately 95 trees, Option 2 will impact approximately 80 trees, and Option 3 will impact approximately 75 trees. Impacts to any Protected Trees resulting from the proposed project would be regarded as **significant pursuant to CEQA.** This impact could be mitigated to levels considered less than significant.

14.2 Mitigation Measure BIO-1.

Impacts to Protected Trees will vary from 75 to 98 trees, depending on the Option selected, as illustrated in Attachment A. As such, the Town shall prepare and implement a Tree Preservation and Protection Plan addressing tree protection for trees to remain and identifying replacement for protected trees to be removed. The Town of Windsor shall ensure that trees to remain are adequately protected during construction activities and that trees to be removed are replaced in accordance with Town's Tree Preservation and Protection Ordinance (Chapter 27.36.040 of the Town's Code). Tree protection measures shall include the following:

To protect preserved trees from injuries that may result from construction activities such as root, trunk or branch damage or harm during site preparation, grading and trenching, the Town shall prepare and implement a Tree Preservation Plan which will include the following preservation measures:

- Establish a tree protection zone (TPZ) to be inspected and verified by a qualified arborist;
- Install tree protection fencing and signage around the TPZ prior to construction;
- Restrict demolition, soil grading, trenching, and parking of vehicles within the TPZ;
- Cover exposed soil under canopies and throughout the TPZ with mulch (excluding trees within the riparian corridor of Starr Creek);
- Preclude ornamental landscaping, filling, cutting or compaction of soils within the tree drip line;
- Preserve oak leaf litter below the drip line of protected trees;

- Monitoring soil moisture to ensure that soil remains moist to a depth of 18 inches;
- Conduct pruning by qualified personnel in accordance with current industry standards;
- Monitor all trenching and excavation activities inside the TPZ by a qualified arborist and as feasible preclude the use of heavy-equipment.

Implementation of this mitigation measure would reduce impacts to Protected Trees to a level considered **less than significant pursuant to CEQA.**

14.3 Impact BIO-2. Development of the Project Would Have a Potentially Significant Impact on Nesting Birds (Potentially Significant)

White-tailed kite, red-tailed hawk, sharp-shinned hawk, Cooper's hawk, great horned owls, and red-shouldered hawks are all known from the area and could nest on the project site. Common song birds (passerine birds) could also nest on the project site. All of these birds are protected under the Migratory Bird Treaty Act (50 CFR 10.13) and their eggs and young are protected under California Fish and Game Code Sections 3503, 3503.5. Any project-related impacts to these species would be considered a significant impact. Potential impacts to these species from the proposed project include 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 and song birds from the proposed project would be **potentially significant pursuant to CEQA.** This impact could be mitigated to a level considered less than significant.

14.4 Mitigation Measure BIO-2. Nesting Birds

To avoid impacts to nesting birds, a nesting survey shall be conducted within 15 days of commencing with construction work or tree removal if this work would commence between February 1st and August 31st. The nesting survey should include an examination of all buildings onsite and all trees onsite and within 200 feet of the entire project site (i.e., within a zone of influence of nesting birds), not just trees slated for removal. The zone of influence includes those areas outside the project site where birds could be disturbed by earth- moving vibrations and/or other construction-related noise.

If birds are identified nesting on or within the zone of influence of the construction project, a qualified biologist shall establish a temporary protective nest buffer around the nest(s). The nest buffer should be staked with orange construction fencing. The buffer must be of sufficient size to protect the nesting site from construction-related disturbance and shall be established by a qualified ornithologist or biologist with extensive experience working with nesting birds near and on construction sites. Typically, adequate nesting buffers are 50 feet from the nest site or nest tree dripline for small birds and up to 300 feet for sensitive nesting birds that include several raptor species known the region of the project site but that are not expected to occur on the project site. Upon completion of nesting surveys, if nesting birds are identified on or within a zone of influence of the project site, a qualified ornithologist/biologist that frequently works with nesting birds shall prescribe adequate nesting buffers to protect the nesting birds from harm while the project is constructed.

No construction or earth-moving activity shall occur within any established nest protection buffer prior to September 1 unless it is determined by a qualified ornithologist/biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones, or that the nesting cycle is otherwise completed. In the region of the project site, most species complete nesting by mid-July. This date can be significantly earlier or later, and would have to be determined by the qualified biologist. At the end of the nesting cycle, and fledging from the nest by its occupants, as determined by a qualified biologist, temporary nesting buffers may be removed and construction may commence in established nesting buffers without further regard for the nest site.

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

14.5 Impact BIO-3. Bats –Tree Removal May Have a Potentially Significant Impact on Pallid Bat (Potentially Significant)

The trees onsite may provide roosting and maternity habitat for special-status bats including the pallid bat. This bat species is designated by the State as "species of special concern." In accordance with the CEQA Guidelines (Section 15380) which protects "rare" and "endangered" species as defined by CEQA (species of special concern meet this CEQA definition), impacts to special-status bat species would be considered a **potentially significant impact pursuant to CEQA**. Potential impacts to special-status bats from the proposed project include loss of maternity and/or roosting habitat, death of individual adult bats and/or young. This impact could be mitigated to a less than significant level.

14.6 Mitigation Measure BIO-3. Bats

In order to avoid impacts to the Pallid bat, and other special-status bat species, a biologist should survey trees 15 days prior to commencing with any tree removal. If no special-status bats are found during the surveys, then there would be no further regard for these bat species.

If special-status bat species are found on the project site a determination should be if there are young bats present. If young are found roosting in any tree or building, impacts to the tree or building should be avoided until the young have reached independence. A non-disturbance buffer fenced with orange construction fencing should also be established around the maternity site. The size of the buffer zone should be determined by a qualified bat biologist at the time of the surveys. If adults are found roosting in a tree or building on the project site but no maternal sites are found, the following measures should be undertaken to avoid impacting the bats:

Tree Trimming and/or removal should only be conducted during seasonal periods of bat activity: between August 31 and October 15, when bats would be able to fly and feed independently, and between March 1 and April 15 to avoid hibernating bats, and prior to the formation of maternity colonies.

Any trees that will be removed, and that the biologist has identified as having potentially suitable bat roost habitat, should be removed using a two-day phased removal method:

- On day one, in the afternoon, limbs and branches should be removed using chainsaws only. Limbs with cavities, crevices, and deep bark fissures should be avoided.
- On day two, the rest of the tree should be removed under the direct supervision of the biologist.

If tree removal must occur outside of the seasonal activity periods mentioned above (i.e., between October 16 and February 28/29, or between April 16 and April 30), then a qualified biologist, one with at least two years of experience surveying for bats, should do preconstruction surveys within 14 days of starting work. If the qualified biologist finds evidence of bat presence during the surveys, then he/she should develop a plan for removal and exclusion, in conjunction with CDFW.

Implementation of this mitigation measure would reduce impacts to special-status bat species to a level considered **less than significant pursuant to CEQA.**

14.7 Impact BIO-4. Development of the proposed project would have a potentially significant impact on Waters of the United States and/or State (Potentially Significant)

The proposed project may result in impacts to areas that are likely within the Corps' and RWQCB jurisdiction pursuant to Sections 404 and 401 of the Clean Water Act, respectively. Areas subject to potential jurisdiction by these two agencies include the seasonal wetland areas along the northern boundary of the project site and Starr Creek. The total extent of impacts that would occur to "waters of the United States/State" from the proposed project will vary, depending on the Option selected, as illustrated in Attachment A.

Jurisdictional features shall be avoided by roadway design to the greatest extent feasible; however, given the narrow roadway alignment, a minimum of approximately 0.0456 acres and up to 0.075 acres of seasonal wetlands may be directly filled in order to accommodate the multi-modal roadway and associated improvements. As such, impacts would be regarded as a **significant impact pursuant to CEQA.** Such impacts could be mitigated to a level considered less than significant.

14.8 Mitigation Measure BIO-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. A request for jurisdictional determination has been submitted to the Corps and is currently pending. Once that map is confirmed, the full extent of waters of the United States will be known and the extent of impacts to regulated areas ascertained.

Based on the Corps confirmed map, jurisdictional waters within the project area will be avoided by the project where possible, based on the Option selected. In addition, jurisdictional wetlands likely occur beyond and adjacent to the delineation mapped area, and those wetland areas will be preserved and protected during construction. Impacts shall also be minimized by the use of Best Management Practices to protect preserved wetlands and ensure water quality in wetlands and other waters within the watershed. These practices can include installing orange construction

fencing, silt fencing, hay or gravel wattles, and other protective measures to prevent equipment from entering protected areas and to prevent sedimentation or de minimus fill from impacting the preserved wetlands or Starr Creek. During project construction, a biological monitor shall be on-site to monitor the integrity of preserved wetlands and other waters, and to ensure that there are no impacts to Starr Creek below the Ordinary High Water Marks.

For those wetland areas that cannot be avoided, permits from the Corps and RWQCB shall be acquired that allows the removal of specified wetlands. Proof of a 404 permit from the Corps and a 401 permit from the RWQCB shall be provided to the Town. Any conditions or stipulations in the permits issued for this project will be implemented by the Town.

Impacts to wetlands will be mitigated via the enhancement or creation of compensation wetlands to replace those wetlands permanently affected by project activities. If possible, wetlands will be created on-site and will resemble those wetlands affected by the project (known as in-kind replacement). If wetlands cannot be created in-kind and on-site, other alternatives will be explored with the regulatory agencies and approvals will be obtained for creating mitigation wetlands at an off-site location.

Full avoidance of waters of the United States is not possible given the narrow right of way of the roadway alignment. A minimum of approximately 0.0456 acres and up to 0.075 acres of seasonal wetlands may be directly filled in order to accommodate the multi-modal roadway and associated improvements. Minimum requirements for mitigating impacts to wetlands include:

- Replacement of impacted wetlands at a 2:1 ratio. For permanent wetland impacts, wetlands can be replaced at a minimum ratio of two acres created for each acre, or fraction thereof, permanently impacted;

- Creation of new wetlands that will remain inundated or saturated for sufficient duration to support hydrophytic vegetation;

- Creation of in perpetuity preservation. The Corps and other regulatory agencies generally require that any new wetlands created to mitigate project impacts be set aside in perpetuity, either through deed restrictions or conservation easements;

- Establishment of a five-year monitoring program to monitor the establishment of the created wetland toward meeting performance goals. At the end of each monitoring year, an annual report shall be submitted to the Corps, RWQCB, and other resource agencies that permitted the project. The report shall document hydrological and vegetative conditions of the created wetland and recommend remedial measure to correct any performance deficiencies;

- In lieu of creating compensation wetlands, as approved by the Corps and RWQCB, the applicant may purchase mitigation credits from an approved mitigation bank at a 1:1 ratio or as otherwise required by the Corps and RWQCB at the time 404 and 401 permits are issued.

In addition, the RWQCB will require complete pre- and post-development Best Management Practices Plan (BMPs) of any portion of the project site that is graded. 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) will 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) will be developed and incorporated into the project plans to ensure that there are no impacts to downstream receiving waters. The SWMP will be submitted to RWQCB for approval.

Implementation of the measures described above would reduce significant impacts to waters of the United States/State to a level considered **less-than-significant pursuant to the CEQA**.

14.9 Impact BIO-5. Development of the proposed project would have a significant impact to CDFW Section 1602 Jurisdictional Areas (Significant)

The proposed clear span bridge (road crossing) over Starr Creek would require a SBAA with CDFW. The final design of the clear span bridge is unknown at the time of this writing, but the abutments are proposed to be located at the top-of-banks. Installation of this bridge and any associated impacts to riparian vegetation will be subject to CDFW regulation.

Impacts to CDFW Section 1602 jurisdiction would be regarded as **significant impacts pursuant to CEQA.** Those impacts could be mitigated to a level considered less than significant.

14.1 Mitigation Measure BIO-5. Impacts to CDFW Section 1602 Jurisdictional Areas

The Town of Windsor shall secure a Streambed Alteration Agreement (SBAA) from the CDFW and implement all measure identified therein including but not limited to the following:

- To avoid fuels, lubricants, soils and other pollutants from entering Starr Creek, wildlife friendly hay wattles and/or silt fending shall be installed. The use of mulch or any other substitute that may enter into the creek shall be prohibited.

- Staging, operation and maintenance of heavy duty construction equipment shall be located away from Staff Creek and well outside of the riparian corridor.

- To mitigate for any impacts to the riparian corridor of Starr Creek, disturbed areas shall be revegetated with native riparian plant species. Replacement of riparian trees to be removed (oaks) shall be planted near the creek as feasible and/or adjacent to the existing limits of the riparian corridor to contribute to the existing riparian canopy. Riparian plantings shall be maintained for a minimum of 5 years to ensure that the canopy is enhanced and the understory restored.

- Non-native and invasive ornamental landscaping shall be precluded from use proximate to Starr Creek.

- To avoid debris from entering Starr Creek, the final roadway design shall provide for enclosed and accessible trash receptacles (located outside of the riparian corridor).

- New lighting introduced by the project shall be downcast and precluded from spilling over to the riparian corridor.

Any further requirements set forth in the Streambed Alteration Agreement (SBAA) from the CDFW, such as specific erosion control measures near the creek, shall also be implemented.

Implementation of these measures would reduce significant impacts to Section 1602 jurisdictional areas to a level considered **less than significant pursuant to the CEQA.**

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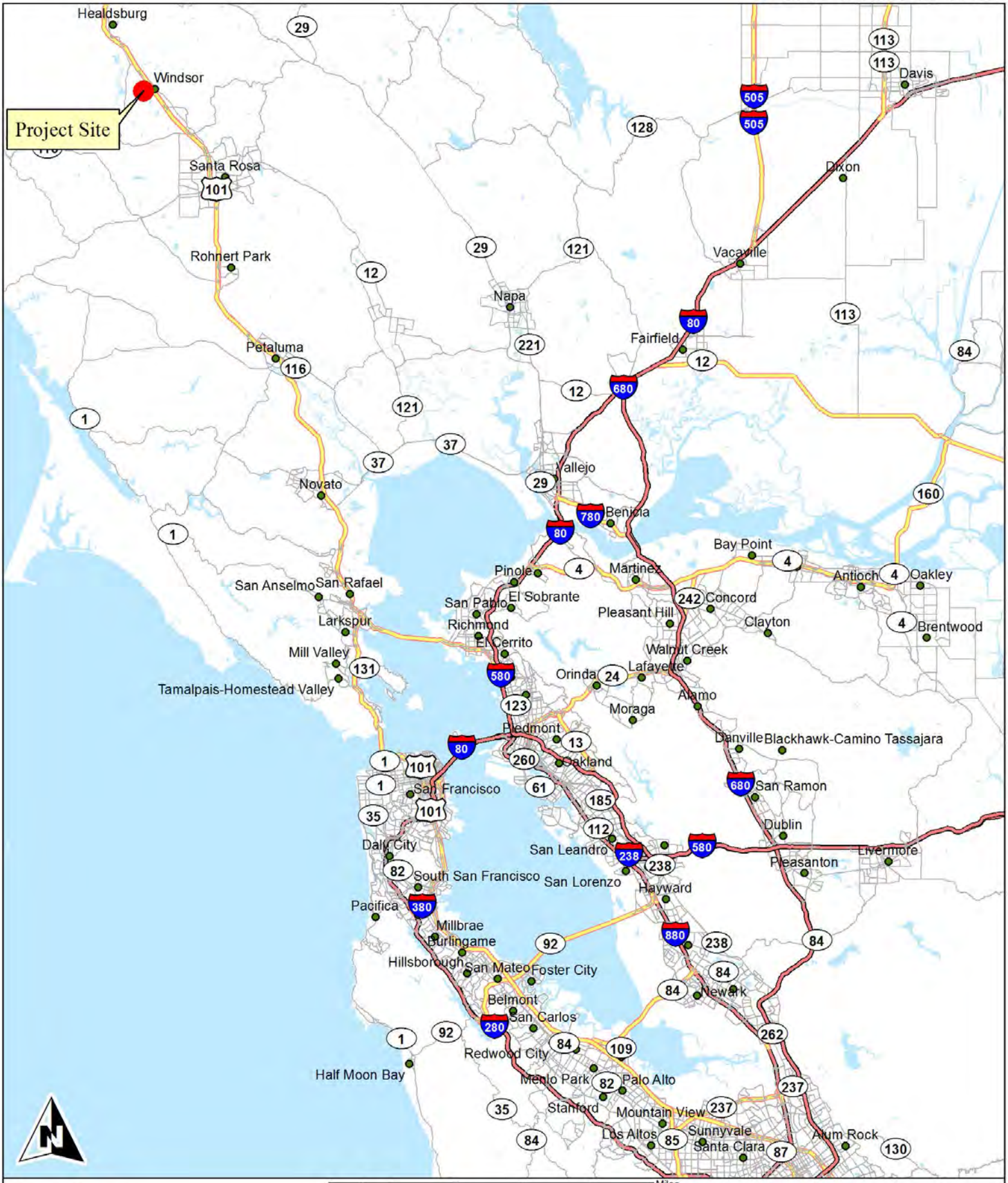

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Figure 1. Jaguar Way Extension Project Site
Regional Map
Town of Windsor, California

County: Sonoma
Map Preparation Date: October 24, 2017

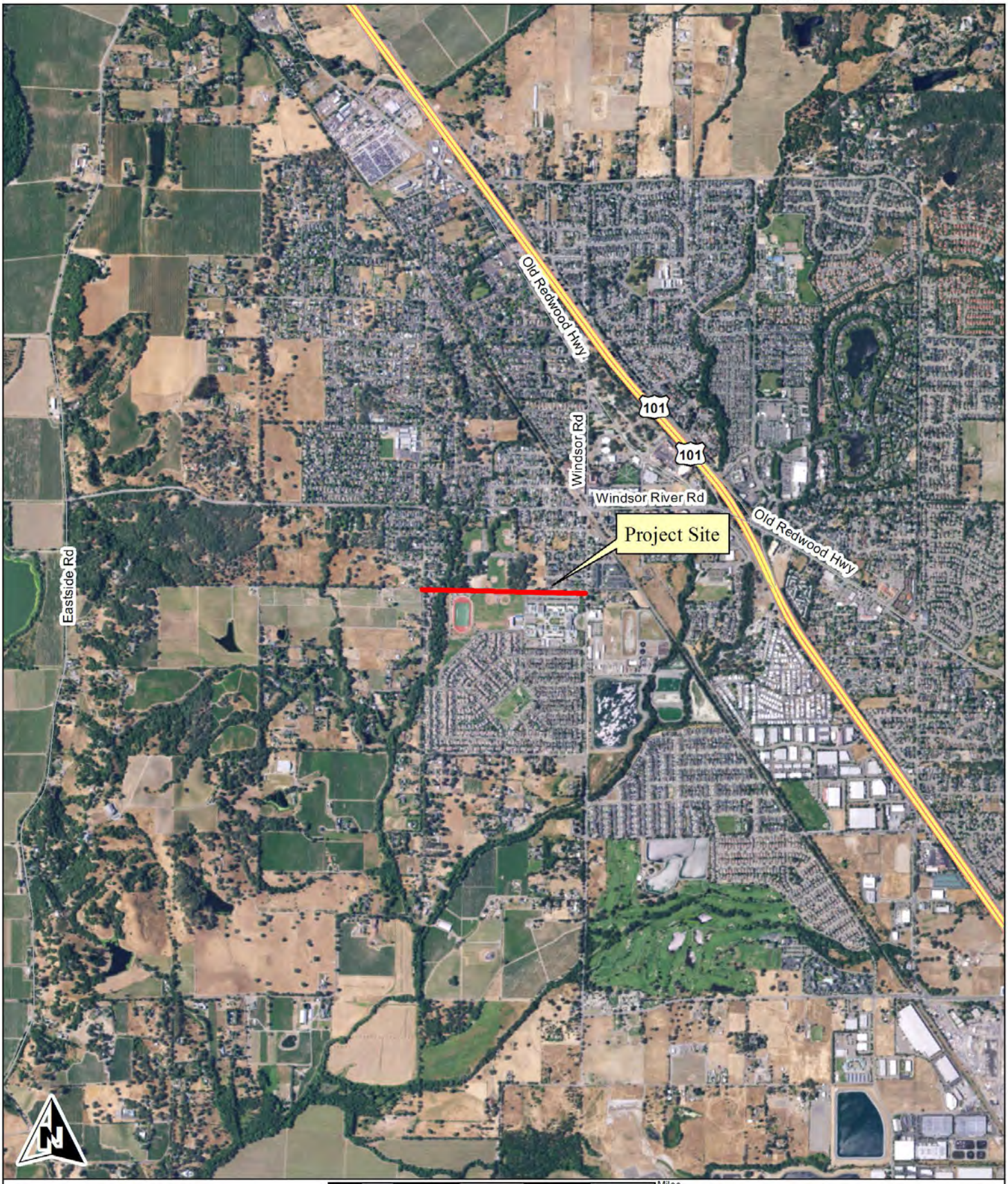

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Figure 2. Jaguar Way Extension Project Site
Location Map
Town of Windsor, California

Section: 14; T8N R8W
38.543599 -122.821453
7.5-Minute Healdsburg quadrangle
Aerial Photograph Source: ESRI
Map Preparation Date: October 24, 2017

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Figure 3. Aerial Photograph of the
Jaguar Way Extension Project Site
Town of Windsor, California

Aerial Photograph Source: ESRI
Map Preparation Date: October 24, 2017

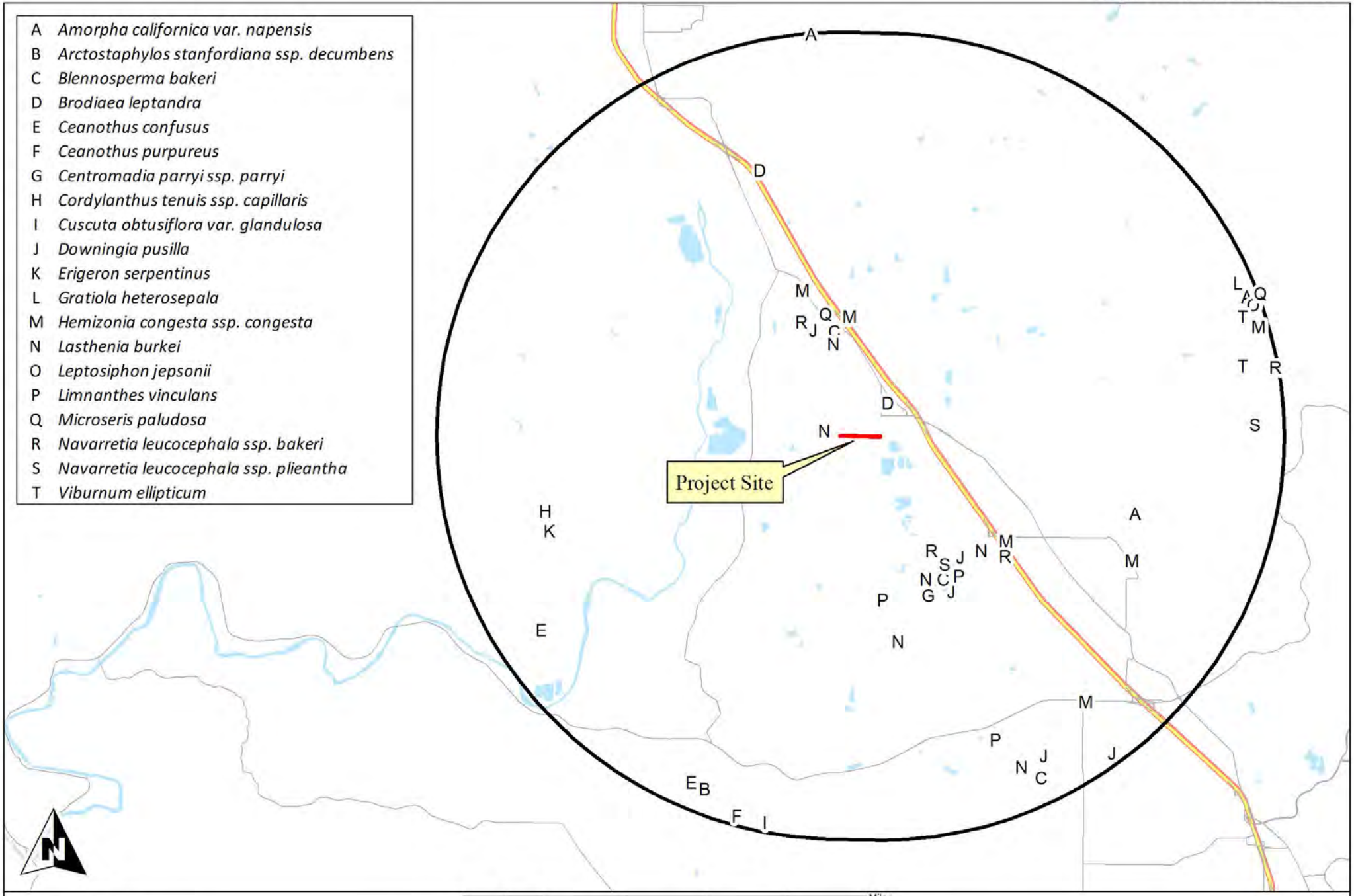

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Figure 4. Known CNDDB Records for Special-Status Plants Species
Within 5 Miles of the
Jaguar Way Extension Project Site

5-Mile Radius
Source: CDFW, California Natural Diversity Data Base, 2019
Map Preparation Date: September 17, 2019

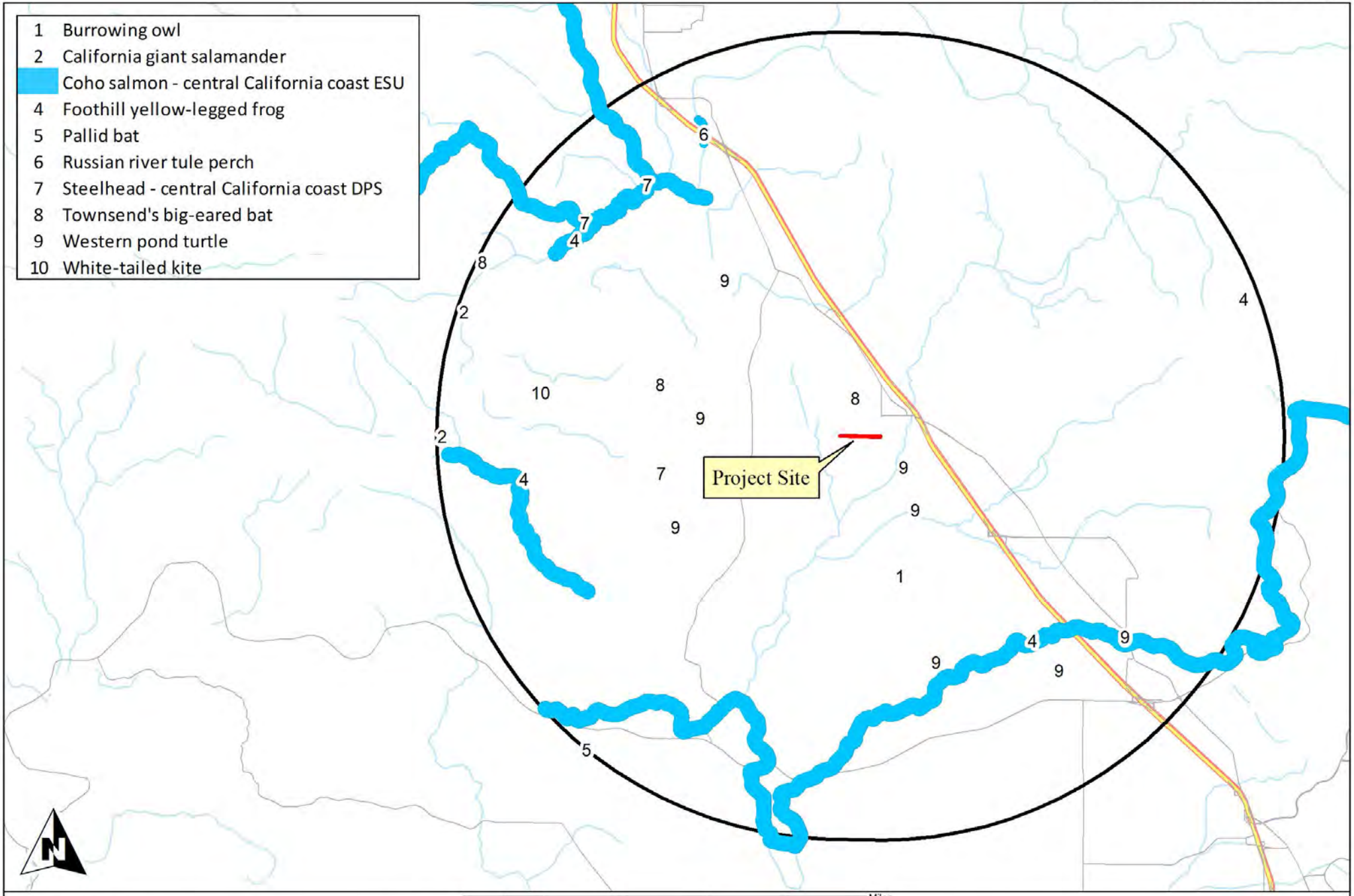

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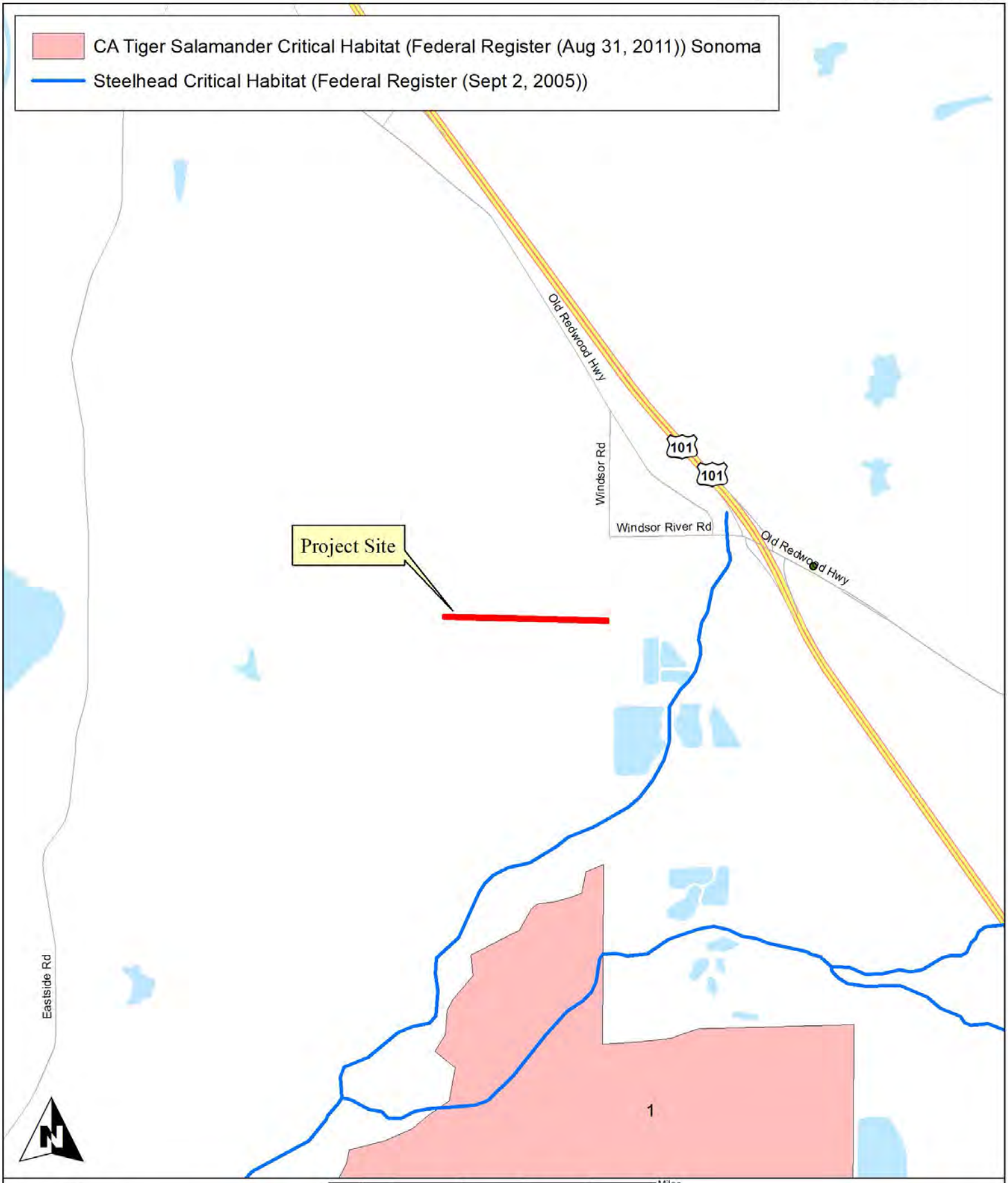
Figure 5. Known CNDDB Records for Special-Status Wildlife Species
Within 5 Miles of the
Jaguar Way Extension Project Site

5-Mile Radius
Source: CDFW, California Natural Diversity Data Base, 2019
Map Preparation Date: September 17, 2019



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

Figure 6. Critical Habitat in the Vicinity of the Jaguar Way Extension Project Site Town of Windsor, California

Source: USFWS
Map Preparation Date: September 17, 2019

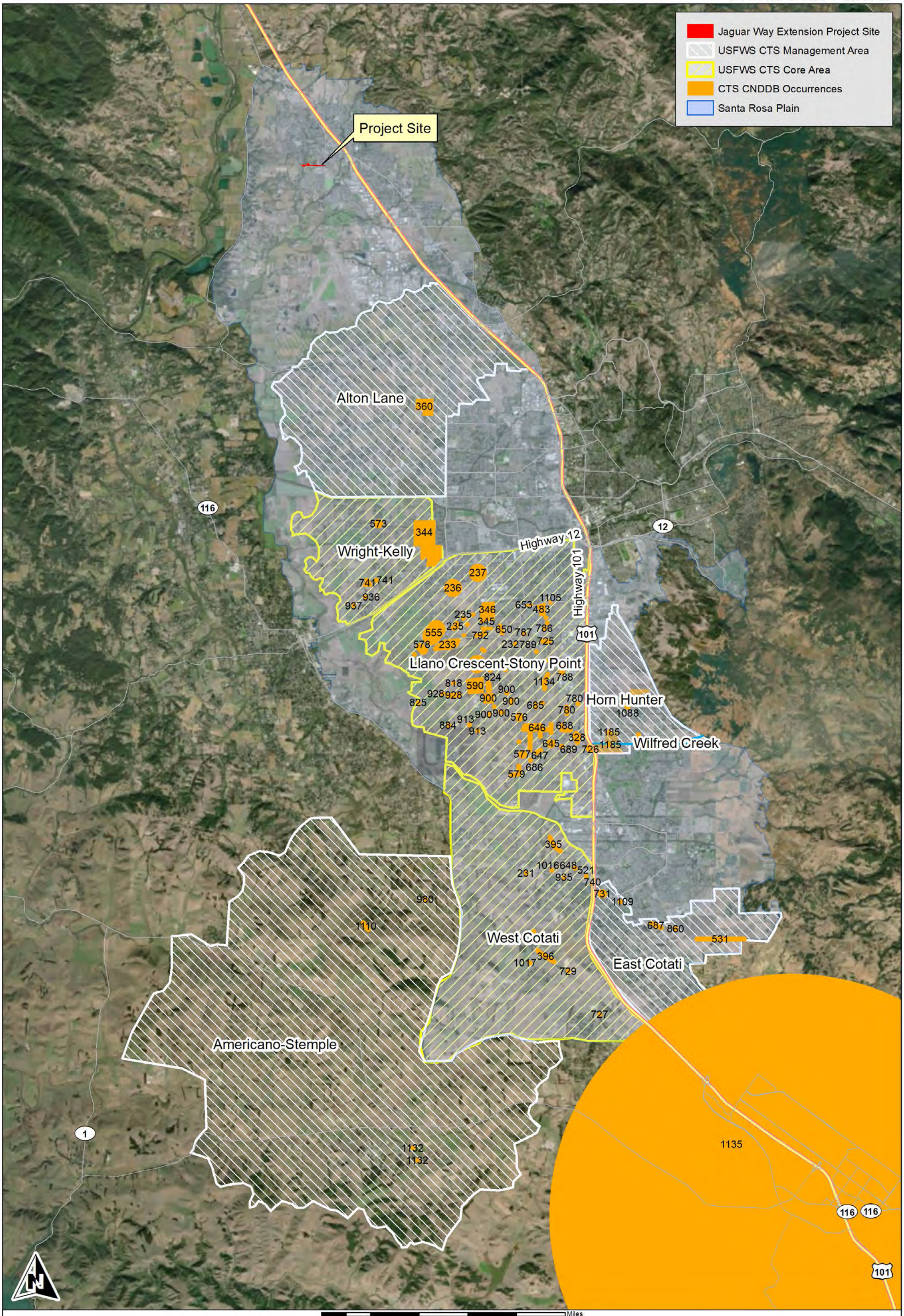


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Figure 7. Santa Rosa Plain California Tiger Salamander Core and Management Areas
(from USFWS 2016)
in the Vicinity of the Jaguar Extension Project Site

County: Sonoma
Aerial Photograph Source: ESRI
Map Preparation Date: September 17, 2019

Table 1

Plant Species Observed on the Jaguar Way Project Site

Gymnosperms	
Cupressaceae	
Sequoia sempervirens	Redwood
Angiosperms - Dicots	
Anacardiaceae	
Toxicodendron diversilobum	Poison-oak
Apocynaceae	
**Vinca major*	Periwinkle
Asteraceae	
Baccharis pilularis subsp. consanguinea	Coyote brush
**Cichorium intybus*	Chicory
**Dittrichia graveolens*	Stinkwort
Erigeron canadensis	Horseweed
**Hypochaeris radicata*	Rough cat's-ear
**Lactuca serriola*	Prickly lettuce
**Leontodon saxatilis*	Long-beaked hawkbit
**Tragopogon porrifolius*	Common salsify
Brassicaceae	
**Raphanus sativus*	Wild radish
**Sinapis arvensis*	Wild mustard
Caprifoliaceae	
Symphoricarpos mollis	Creeping snowberry
Caryophyllaceae	
**Spergularia sp.*	Spergularia
Fabaceae	
**Acacia dealbata*	Silver wattle
Acmispon americanus var. americanus	Spanish-clover
**Genista monspessulana*	French broom
**Lotus corniculatus*	Birdfoot trefoil
**Medicago polymorpha*	California burclover
**Trifolium glomeratum*	Clustered clover
**Trifolium hirtum*	Rose clover
Fagaceae	
Quercus agrifolia var. agrifolia	Coast live oak
Quercus douglasii	Blue oak
Quercus kelloggii	California black oak
Quercus lobata	Valley oak
Geraniaceae	
**Geranium dissectum*	Cut-leaf geranium

* Indicates a non-native species

Table 1

Plant Species Observed on the Jaguar Way Project Site

Juglandaceae	
Juglans hindsii	Northern California black walnut
Lamiaceae	
**Mentha pulegium*	Pennyroyal
Lythraceae	
**Lythrum hyssopifolia*	Hyssop loosestrife
Magnoliaceae	
**Liriodendron tulipifera*	Tulip tree
Malvaceae	
**Malva parviflora*	Cheeseweed
Myrtaceae	
**Callistemon citrinus*	Crimson bottlebrush
Oleaceae	
Fraxinus latifolia	Oregon ash
Onagraceae	
Epilobium brachycarpum	Summer cottonweed
Oxalidaceae	
**Oxalis pes-caprae*	Bermuda buttercup
Plantaginaceae	
**Kickxia elatine*	Sharppoint fluellin
**Plantago lanceolata*	English plantain
Polygonaceae	
**Persicaria maculosa*	Lady's-thumb
Persicaria punctata	Dotted smartweed
**Polygonum aviculare*	Common knotweed
**Rumex conglomeratus*	Green dock
**Rumex crispus*	Curly dock
Portulacaceae	
**Portulaca oleracea*	Common purslane
Rosaceae	
**Prunus cerasifera*	Cherry plum
Rosa californica	California rose
**Rubus armeniacus*	Himalayan blackberry
Salicaceae	
Populus fremontii subsp. fremontii	Fremont cottonwood
Salix lasiolepis	Arroyo willow
Vitaceae	
**Vitis vinifera*	Cultivated grape

Angiosperms -Monocots

* Indicates a non-native species

Table 1

Plant Species Observed on the Jaguar Way Project Site

Alismataceae	
**Alisma lanceolatum*	Lance-leaf water-plantain
Cyperaceae	
Cyperus eragrostis	Tall flatsedge
Eleocharis macrostachya	Creeping spikerush
Juncaceae	
Juncus balticus subsp. ater	Baltic rush
Juncus tenuis	Slender rush
Juncus xiphioides	Iris-leaved rush
Poaceae	
**Avena barbata*	Slender wild oat
**Briza maxima*	Rattlesnake grass
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft chess
**Cynodon dactylon*	Bermudagrass
**Cynosurus echinatus*	Dogtail Grass
**Dactylis glomerata*	Orchard grass
Elymus glaucus	Blue wildrye
**Festuca bromoides*	Brome fescue
**Festuca perennis*	perennial ryegrass
**Festuca sp.*	Fescue grass
**Holcus lanatus*	Common velvet grass
**Hordeum marinum subsp. gussoneanum*	Mediterranean barley
**Paspalum dilatatum*	Dallis grass
**Phalaris aquatica*	Harding grass
**Poa annua*	Annual bluegrass
**Polypogon monspeliensis*	Annual beard grass

* Indicates a non-native species

Table 2
Willdlife Species Observed on the Jaguar Way Project Site

Amphibians	
Sierran treefrog	*Pseudacris sierra*
Birds	
Northern flicker	*Colaptes auratus*
Eurasian collared-dove	*Streptopelia decaocto*
Mourning dove	*Zenaida macroura*
Anna's hummingbird	*Calypte anna*
Acorn woodpecker	*Melanerpes formicivorus*
Nuttall's woodpecker	*Picoides nuttallii*
California scrub jay	*Aphelocoma californica*
American crow	*Corvus brachyrhynchos*
Bushtit	*Psaltriparus minimus*
European starling	*Sturnus vulgaris*
California towhee	*Pipilo crissalis*
House finch	*Haemorhous mexicanus*
House sparrow	*Passer domesticus*
Mammals	
California ground squirrel	*Otospermophilus beecheyi*
Botta's pocket gopher	*Thomomys bottae*

Table 3

Special-Status Plant Species Known to Occur Within 5 Miles of the Jaguar Way Extension Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Adoxaceae					
Viburnum ellipticum Western viburnum	Fed: - State: - CNPS: Rank 2B.3	May-July	Chaparral; cismontane woodland; lower montane coniferous forest.	Closest record for this species located 4.5 miles east of the project site (Occurrence No. 23).	None. No suitable habitat on site. No impact expected.
Asteraceae					
Blennosperma bakeri Sonoma sunshine	Fed: FE State: CE CNPS: Rank 1B.1	February-April	Valley and foothill grassland (mesic); vernal pools.	Closest record for this species located 1.3 miles north of the project site (Occurrence No. 33).	None. No suitable habitat on site. No impact expected.
Centromadia parryi parryi Pappose tarplant	Fed: - State: - CNPS: Rank 1B.2	May-November	Coastal prairie; meadows and seeps; marshes and swamps; vernally wet grassland (sometimes alkaline).	Closest record for this species located 1.9 miles south of the project site (Occurrence No. 28).	None. No suitable habitat on site. No impact expected.
Erigeron serpentinus Serpentine daisy	Fed: - State: - CNPS: Rank 1B.3	May-August	Chaparral (serpentinite).	Closest record for this species located 3.8 miles west of the project site (Occurrence No. 2).	None. No suitable habitat on site. No impact expected.
Hemizonia congesta congesta White seaside tarplant	Fed: - State: - CNPS: Rank 1B.2	April-November	Valley and foothill grassland. 20 to 560 meters. Clay soils	Closest record for this species located 1.3 miles north of the project site (Occurrence No. 29).	None. No suitable habitat on site. No impact expected.
Lasthenia burkei Burke's goldfields	Fed: FE State: CE CNPS: Rank 1B.1	April-June	Meadows and seeps (mesic); vernal pools.	Closest record for this species dates to 1988 and is located 0.2-mile west of the project site (Occurrence No. 22). This record is presumed extant.	None. No suitable habitat on site. No impact expected.

Table 3

Special-Status Plant Species Known to Occur Within 5 Miles of the Jaguar Way Extension Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Microseris paludosa Marsh microseris	Fed: - State: - CNPS: Rank 1B.2	April-July	Closed-cone coniferous forest; cismontane woodland; coastal scrub; valley and foothill grassland. 5-300 m.	Closest record for this species located 1.5 miles north of the project site (Occurrence No. 23).	None. No suitable habitat on site. No impact expected.
Campanulaceae					
Downingia pusilla Dwarf downingia	Fed: - State: - CNPS: Rank 2.2	March-May	Valley and foothill grassland (mesic); vernal pools.	Closest record for this species located 1.4 miles north of the project site (Occurrence No. 75).	None. No suitable habitat on site. No impact expected.
Convolvulaceae					
Cuscuta obtusiflora glandulosa	Fed: State: CNPS: Rank 2.2	July-October	Marshes and swamps (freshwater)	Closest record for this species located 4.9 miles south of the project site (Occurrence No. 4).	None. No suitable habitat on site. No impact expected.
Fabaceae					
Amorpha californica napensis Napa false indigo	Fed: - State: - CNPS: Rank 1B.2	April-July	Broadleaved upland forest (openings); chaparral, cismontane woodland. 150-2000 m.	Closest record for this species located 3.3 miles eastrof the project site (Occurrence No. 67).	None. No suitable habitat on site. No impact expected.
Limnanthaceae					
Limnanthes vinculans Sebastopol meadowfoam	Fed: FE State: CE CNPS: Rank 1B.1	April-May	Meadows (mesic); vernal pools.	Closest record for this species located 2.0 miles south of the project site (Occurrence No. 46).	None. No suitable habitat on site. No impact expected.

Table 3

Special-Status Plant Species Known to Occur Within 5 Miles of the Jaguar Way Extension Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Orobanchaceae					
Cordylanthus tenuis capillaris Pennell's bird's-beak	Fed: FE State: CR CNPS: Rank 1B.2	June-July	Closed-cone coniferous forest; chaparral; [serpentinite].	Closest record for this species located 3.8 miles wesy of the project site (Occurrence No. 5).	None. No suitable habitat on site. No impact expected.
Plantaginaceae					
Gratiola heterosepala Bogg's Lake hedge-hyssop	Fed: - State: CE CNPS: Rank 1B.2	April-August	Marshes and swamps (lake margins); vernal pools. Below 1200 m.	Closest record for this species located 4.7 miles east of the project site (Occurrence No. 100).	None. No suitable habitat on site. No impact expected.
Polemoniaceae					
Leptosiphon jepsonii Jepson's leptosiphon	Fed: - State: - CNPS: Rank 1B.2	March-May	Chaparral; cismontane woodland (usually volcanic).	Closest record for this species located 5.0 miles east of the project site (Occurrence No. 25).	None. No suitable habitat on site. No impact expected.
Navarretia leucocephala bakeri Baker's navarretia	Fed: - State: - CNPS: Rank 1B.1	May-July	Cismontane woodland; lower montane coniferous forest; meadows (mesic); valley and foothill grassland; vernal pools.	Closest record for this species located 1.4 miles north of the project site (Occurrence No. 6).	None. No suitable habitat on site. No impact expected.
Navarretia leucocephala plieantha Many-flowered navarretia	Fed: FE State: CE CNPS: Rank 1B.1	May-June	Vernal pools (volcanic ash flow).	Closest record for this species located 1.6 miles south of the project site (Occurrence No. 9).	None. No suitable habitat on site. No impact expected.

Table 3

Special-Status Plant Species Known to Occur Within 5 Miles of the Jaguar Way Extension Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site
Rhamnaceae					
Ceanothus confusus Rincon Ridge ceanothus	Fed: - State: - CNPS: Rank 1B.1	February-April	Closed-cone coniferous forest; chaparral; cismontane woodland; [volcanic or serpentinite].	Closest record for this species located 4.4 miles southwest of the project site (Occurrence No. 20).	None. No suitable habitat on site. No impact expected.
Ceanothus purpureus Holly-leaf ceanothus	Fed: - State: - CNPS: Rank 1B.2	February-April	Chaparral (volcanic).	Closest record for this species located 4.9 miles south of the project site (Occurrence No. 51).	None. No suitable habitat on site. No impact expected.
Themidaceae					
Brodiaea leptandra Narrow-anthered California brodiaea	Fed: - State: - CNPS: Rank 1B.2	May-July	Broadleafed upland forest; chaparral; cismontane woodland; lower montane coniferous forest; valley and foothill grassland. Elevation 110 - 915 meters.	Closest record for this species located 0.3-mile north of the project site (Occurrence No. 16).	None. No suitable habitat on site. No impact expected.

Table 3

Special-Status Plant Species Known to Occur Within 5 Miles of the Jaguar Way Extension Project Site

Family Taxon Common Name	Status*	Flowering Period	Habitat	Area Locations	Probability on Project Site

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

CNPS Continued:
Rank 2 - Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 2A - Extirpated in California, common elsewhere
Rank 2B.1 - Seriously endangered in California, but more common elsewhere
Rank 2B.2 - Fairly endangered in California, but more common elsewhere
Rank 2B.3 - Not very endangered in California, but more common elsewhere
Rank 3 - Plants about which we need more information (Review List)
Rank 3.1 - Plants about which we need more information (Review List) Seriously endangered in California
Rank 3.2 - Plants about which we need more information (Review List) Fairly endangered in California
Rank 4 - Plants of limited distribution - a watch list

Table 4

Special-Status Wildlife Species Known to Occur Within 5 Miles of the Jaguar Way Extension Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site
Fish				
Coho salmon - Central California ESU *Oncorhynchus kisutch*	Fed: FE State: CE Other:	Federal listing = pops between Punta Gorda & San Lorenzo River. State listing = pops south of San Francisco Bay only. Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen.	Closest record for this species located in Mark West Creek 2.9 miles south of the project site (Occurrence No. 25).	None. Starr Creek does not provide suitable habitat since there are no perennial pools. No impact expected.
Steelhead - Central California Coast DPS *Oncorhynchus mykiss irideus*	Fed: FT State: - Other:	From Russian River south to Soquel Creek, and to Pajaro River. Also found in San Francisco & San Pablo Bay Basins. Spawn in clear, cool, well oxygenated streams greater than 18 cm deep.	Closest record for this species located in Mill Creek 2.3 miles west of the project site (Occurrence No. 34).	None. Starr Creek does not provide suitable habitat since there are no perennial pools. No impact expected.
Russian River tule perch *Hysterocarpus traskii pomo*	Fed: State: CSC Other:	This subspecies is confined to the Russian River and its tributaries in Sonoma and Mendocino Counties, California. Requires clear, flowing water and abundant cover, such as beds of aquatic macrophytes, submerged tree branches and overhanging plants.	Closest record for this species located 4.0 miles north of the project site (Occurrence No. 1).	None. Starr Creek does not provide suitable habitat since there are no perennial pools. No impact expected.
Amphibians				
California giant salamander *Dicamptodon ensatus*	Fed: State: CSC Other:	Inhabits wet coastal forests in or near clear, cold permanent and semi-permanent streams and seepages. Found from Santa Cruz County to Mendocino County in two to three isolated regions.	Closest record for this species located in a tributary off of Felta Creek 4.9 miles west of the project site (Occurrence No. 199).	None. Starr Creek does not provide suitable habitat since there are no perennial pools. No impact expected.
Foothill yellow-legged frog *Rana boylii*	Fed: -- State: CC Other:	Found in partially shaded, shallow streams with rocky substrates. Requires perenial pools or flowing water. Needs some cobble-sized rocks as a substrate for egg laying. Requires water for 15 weeks for larval transformation.	Closest record for this species located in Mark West Creek 3.2 miles south of the project site. (Occurrence No. 1819).	None. Starr Creek does not provide suitable habitat since there are no perennial pools. No impact expected.

Table 4

Special-Status Wildlife Species Known to Occur Within 5 Miles of the Jaguar Way Extension Project Site

Species	*Status	Habitat	Closest Locations	Probability on 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 record for this species dates to 2003 n a storage pond adjacent to Windsor Creek located 0.4-mile southeast of the project site (Occurrence No. 575).	None. Starr Creek does not provide suitable habitat since there are no perennial pools. No impact expected.
Birds				
White-tailed kite *Elanus leucurus*	Fed: State: FP 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 record for this species located 3.7 miles west of the project site (Occurrence No. 105).	Low to moderate potential to nest on or adjacent to site. See text.
Western burrowing owl *Athene cunicularia hypugaea*	Fed: -- State: CSC Other:	Found in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Closest record for this species dates to 2017 and is located 1.8 miles south of the project site, over winter roost site (Occurrence No. 2023).	None. No suitable burrows in project area.
Mammals				
Townsend's big-eared bat *Corynorhinus townsendii townsendii*	Fed: -- State: CSC Other: -	Occurs in humid coastal regions of northern and central California. Roosts in limestone caves, lava tubes, mines, and buildings. Extremely sensitive to disturbance.	Closest record for this species dates to 1954 and is located 0.5-mile north of the project site in the attic of an old house (Occurrence No. 650).	None. No roost habitat in project area. No buidlings within project site. No impacts expected.
Pallid bat *Antrozous pallidus*	Fed: - State: CSC Other:	Occurs in deserts, grasslands, shrublands, woodlands, and forests. Most common in dry habitats with rocky areas for roosting. Roosts in caves, crevices, mines, and occasionally hollow trees. Night roosts in open areas such as porches and open buildings.	Closest record for this species dates to 2004 and is located 5.0 miles southwest of the project site (Occurrence No. 299).	Low potential to occur in mature trees within project area. See text.

Table 4

Special-Status Wildlife Species Known to Occur Within 5 Miles of the Jaguar Way Extension Project Site

Species	*Status	Habitat	Closest Locations	Probability on Project Site

***Status**

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

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

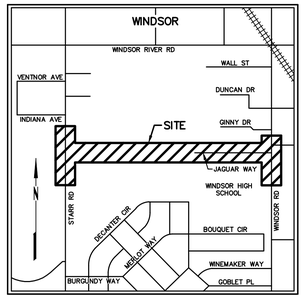
TOWN OF
WINDSOR

JAGUAR WAY EXTENSION - OPTION 1

TOWN OF WINDSOR
SONOMA COUNTY, CALIFORNIA

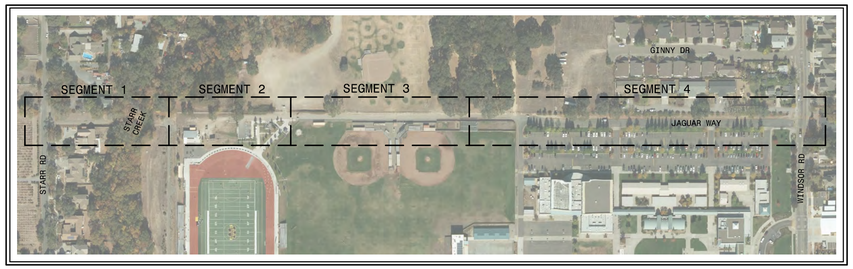
AUGUST 2018

PREPARED BY
BkF
ENGINEERS / SURVEYORS / PLANNERS
200 4TH ST, STE. 300 SANTA ROSA, CA 95401
(707) 583-8500 FAX: (707) 583-8539



VICINITY MAP
NOT TO SCALE

INDEX OF SHEETS



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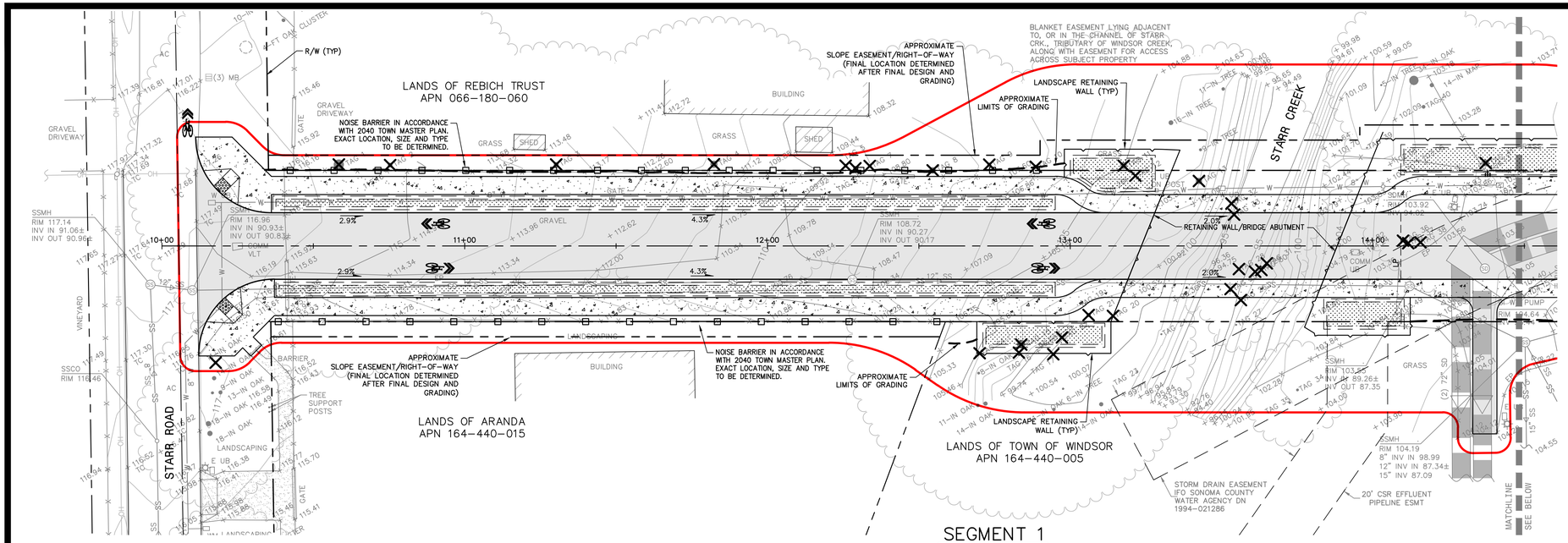
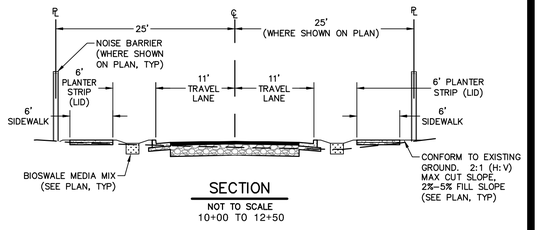


SEGMENT 1



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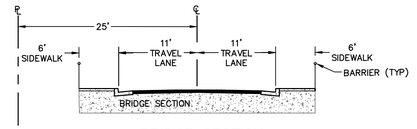

BRIDGE SECTION
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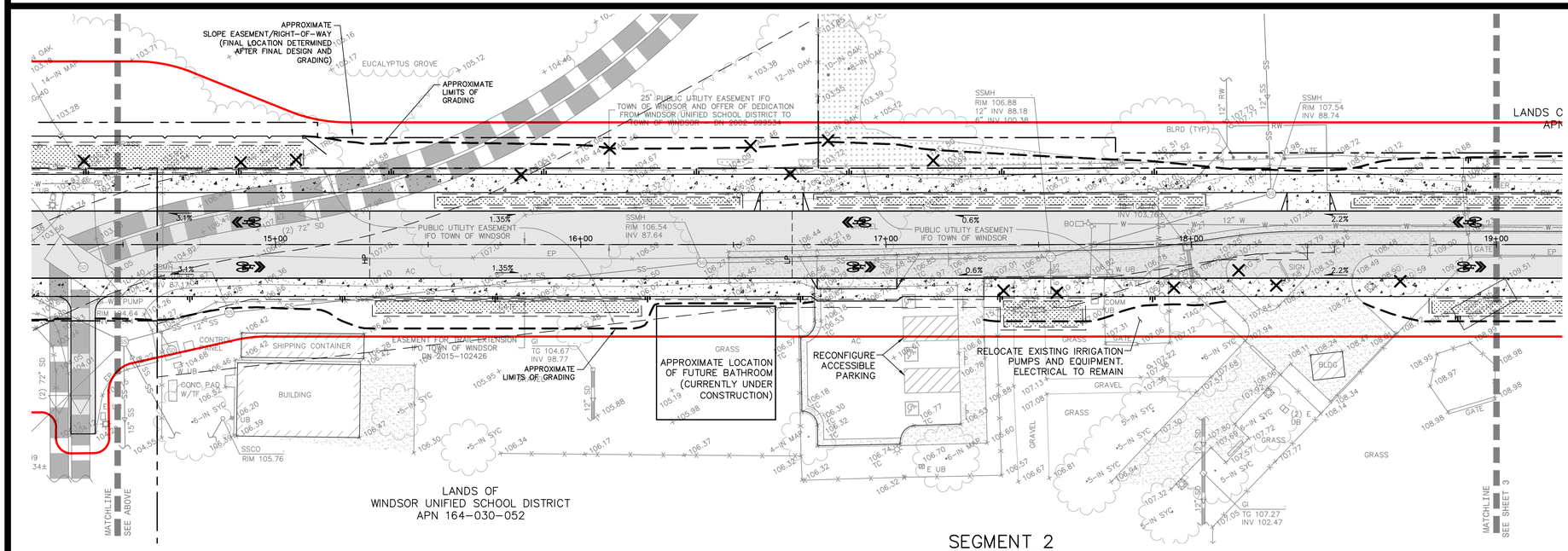
13+20 TO 14+00



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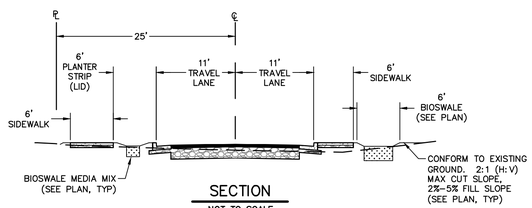

SECTION
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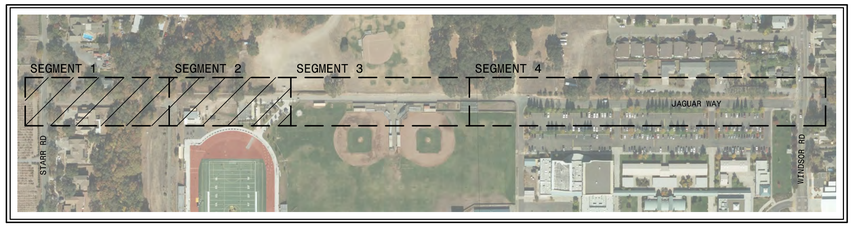
14+20 TO 19+00

NOTES:
CLASS 3 BIKE ROUTE IN EAST & WEST BOUND LANES.

VEGETATED BIOSWALE



KEY MAP
NOT TO SCALE

scale 1" = 20' feet
20 0 20 40

OPTION 1
ROAD SEGMENTS 1 & 2: STATION 10+00 TO 14+50 & 14+50 TO 19+00

JAGUAR WAY EXTENSION
TOWN OF WINDSOR, CALIFORNIA
AUGUST 2018

PREPARED BY
BKF
ENGINEERS / SURVEYORS / PLANNERS
200 4TH ST, STE. 300 SANTA ROSA, CA 95401
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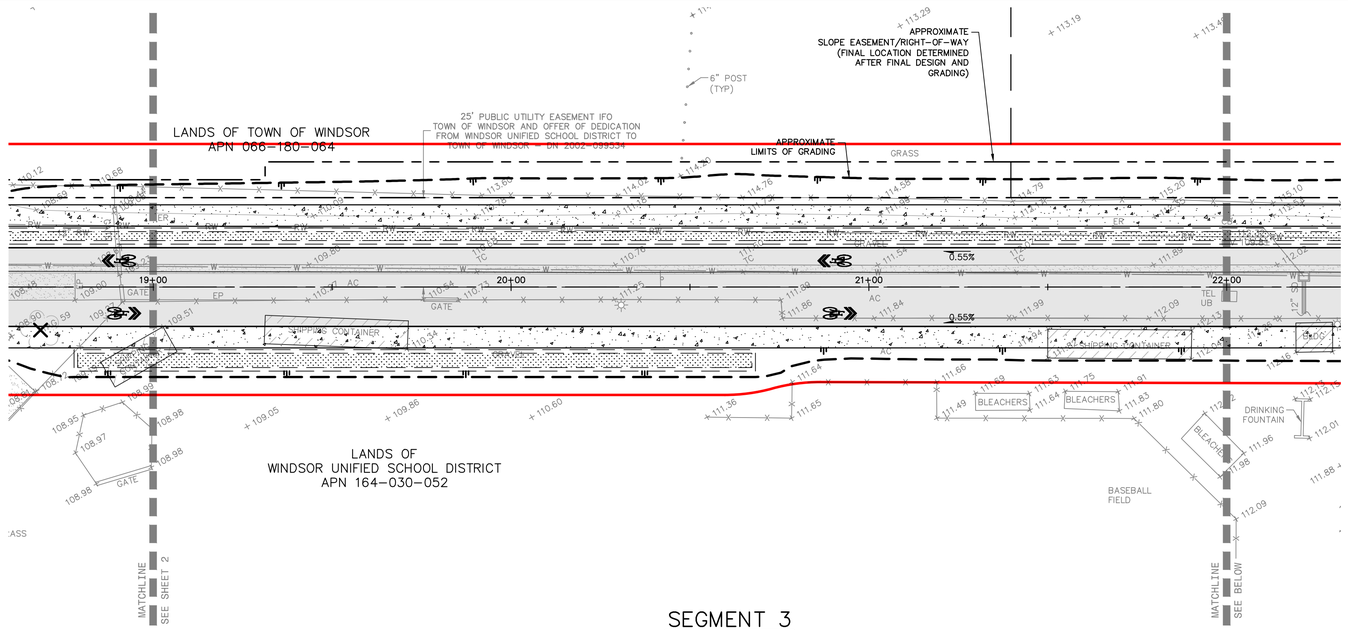
JOB NO. 20179004 SHEET 2 OF 4 SHEETS



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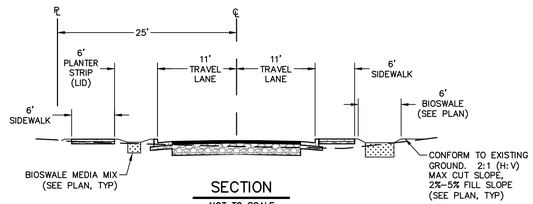
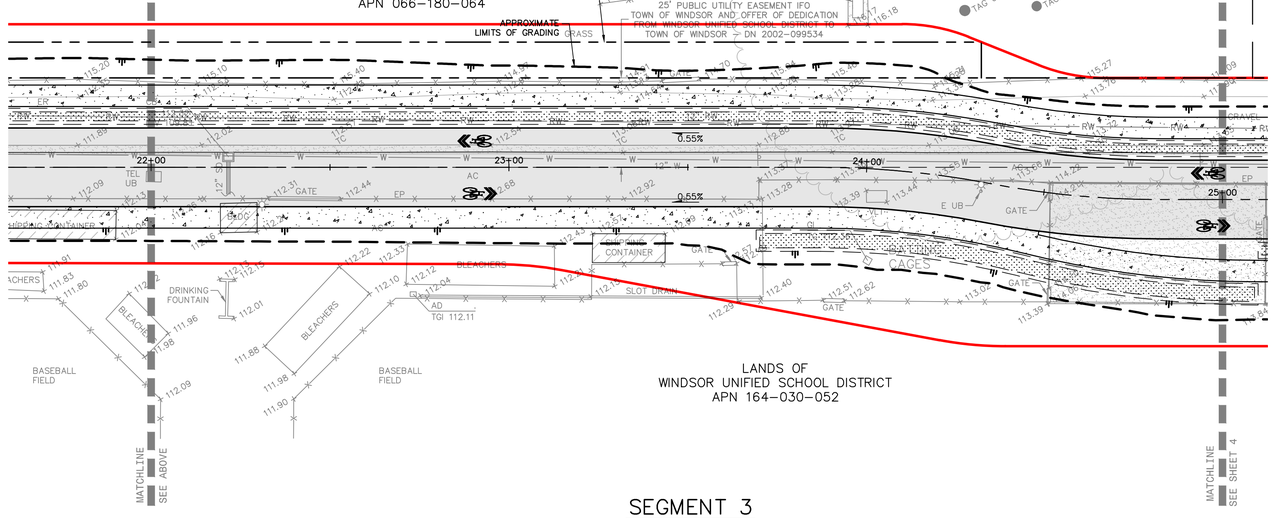
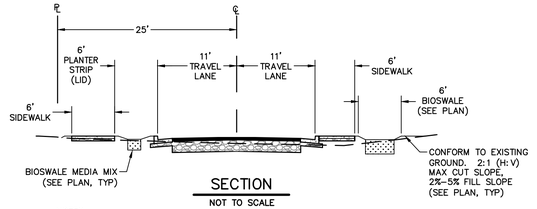


SECTION
NOT TO SCALE

NOTES:
CLASS 3 BIKE ROUTE IN EAST & WEST BOUND LANES.



SEGMENT 3



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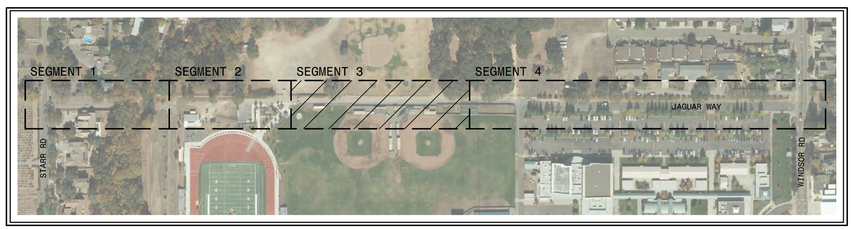
NOT TO SCALE

NOTES:
CLASS 3 BIKE ROUTE IN EAST & WEST BOUND LANES.

VEGETATED BIOSWALE



KEY MAP
NOT TO SCALE

N

20 0 20 40
scale 1" = 20' feet

OPTION 1
ROAD SEGMENT 3:
STATION 19+00 TO 25+00

JAGUAR WAY EXTENSION
TOWN OF WINDSOR, CALIFORNIA
AUGUST 2018

PREPARED BY
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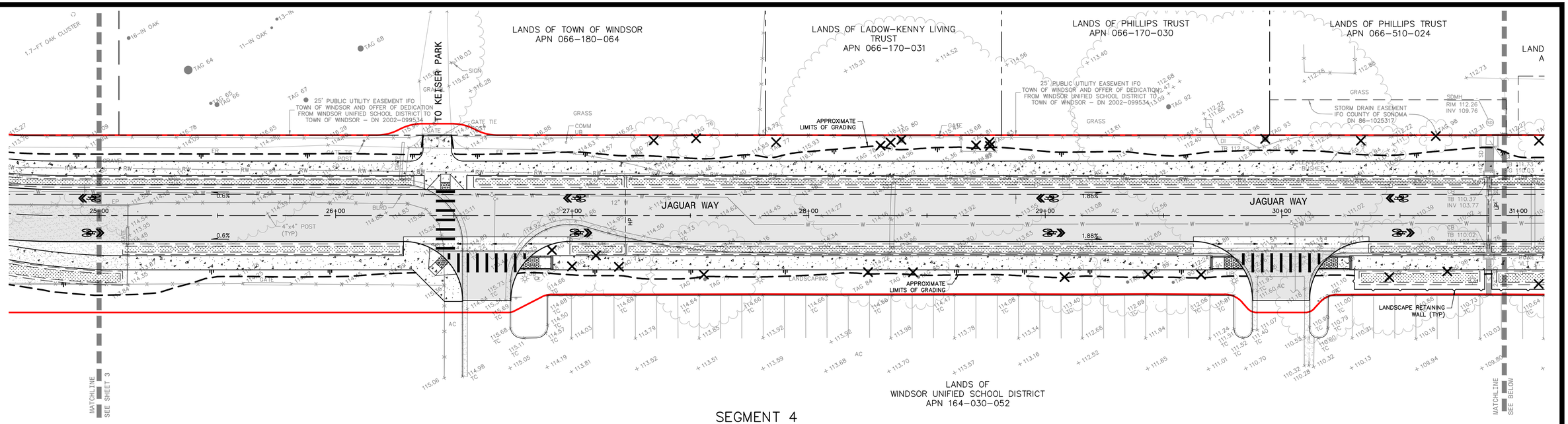
JOB NO. 20179004 SHEET 3 OF 4 SHEETS



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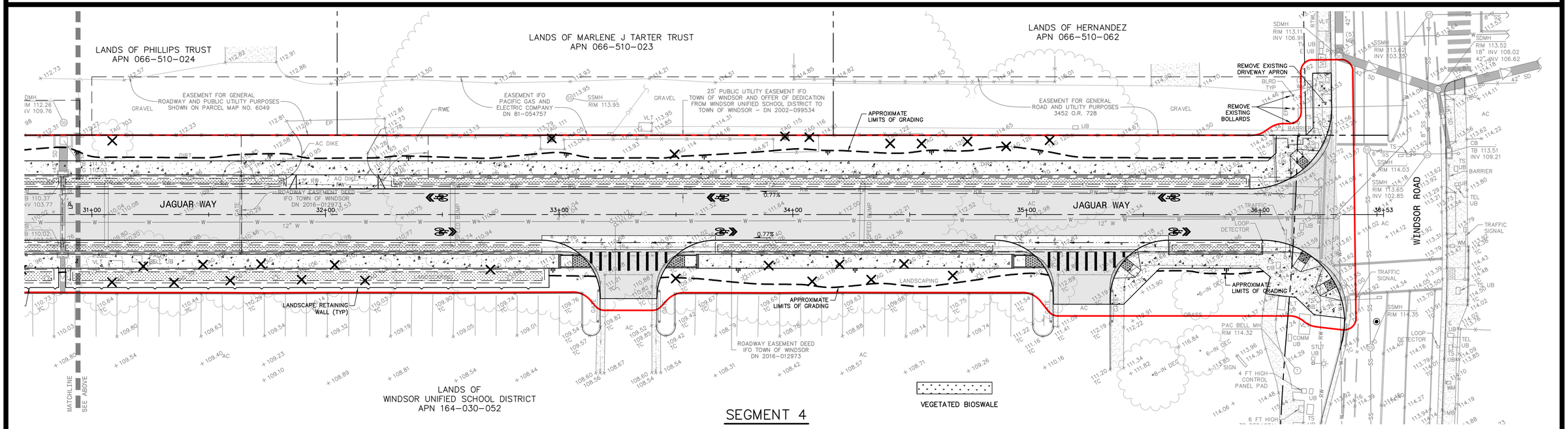

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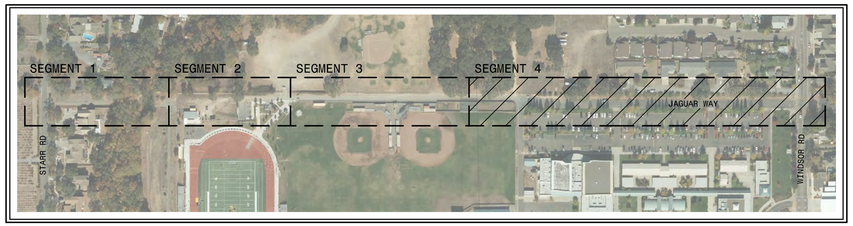

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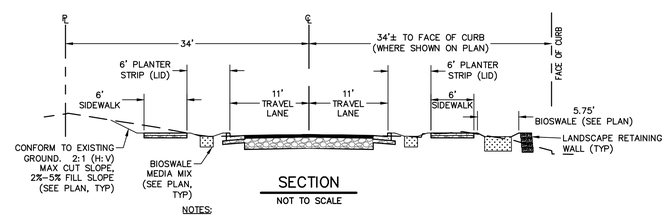

SECTION
NOT TO SCALE

NOTES:
CLASS 3 BIKE ROUTE IN EAST & WEST BOUND LANES.

OPTION 1
ROAD SEGMENT 4:
STATION 25+00 TO 36+50

JAGUAR WAY EXTENSION
TOWN OF WINDSOR, CALIFORNIA
AUGUST 2018

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scale 1" = 20' (20 0 20 40 feet)

JOB NO. 20179004

SHEET 4 OF 4 SHEETS

TOWN OF
WINDSOR

JAGUAR WAY EXTENSION - OPTION 2

TOWN OF WINDSOR
SONOMA COUNTY, CALIFORNIA

AUGUST 2018

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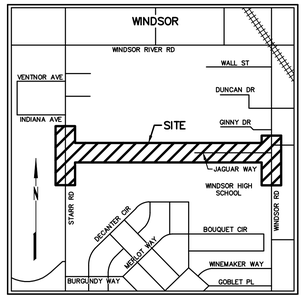
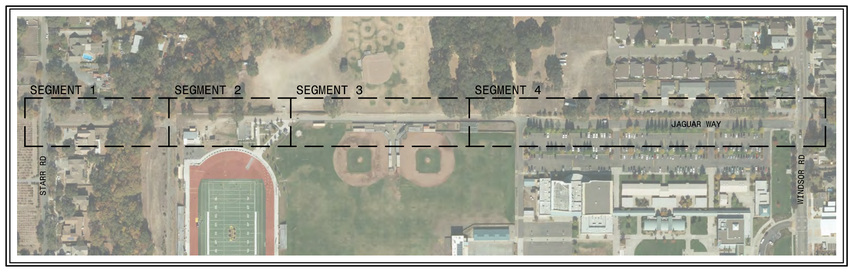


VICINITY MAP
NOT TO SCALE

INDEX OF SHEETS



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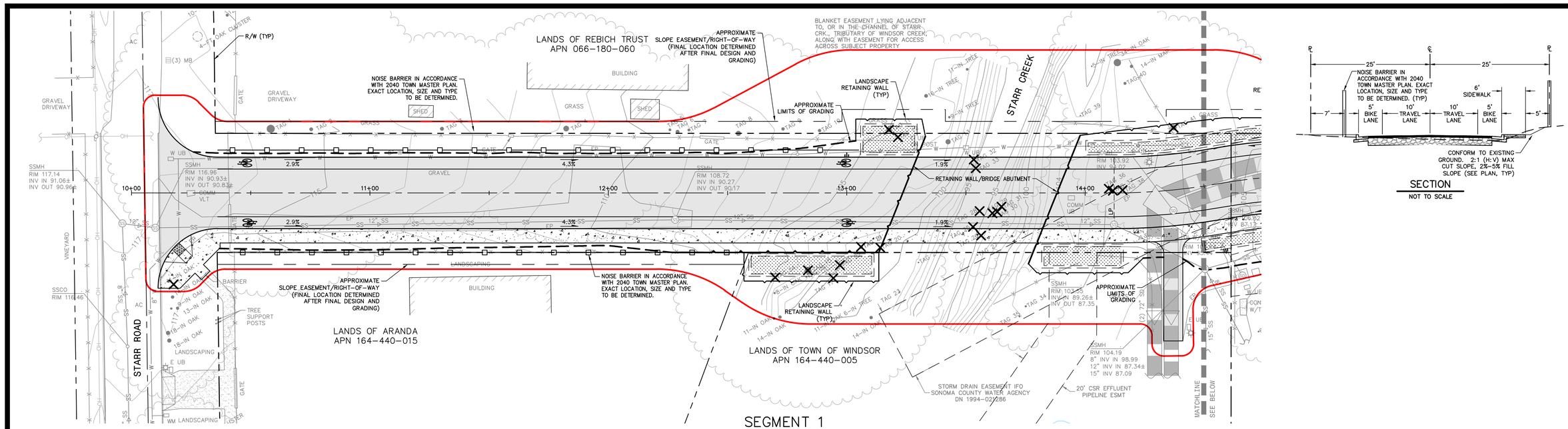

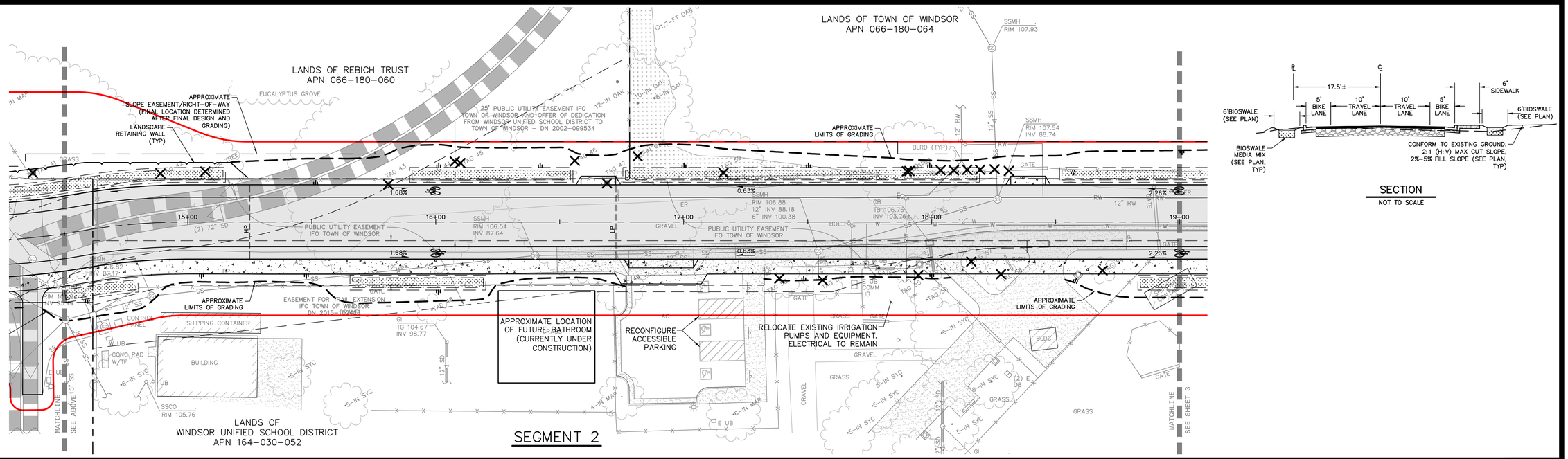

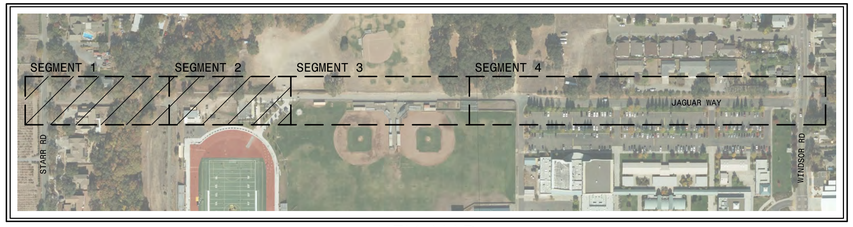

KEY MAP
NOT TO SCALE

N

20 0 20 40
scale 1" = 20' feet

OPTION 2
ROAD SEGMENTS 1 & 2: STATION 10+00 TO 14+50 & 14+50 TO 19+00

JAGUAR WAY EXTENSION
TOWN OF WINDSOR, CALIFORNIA
AUGUST 2018

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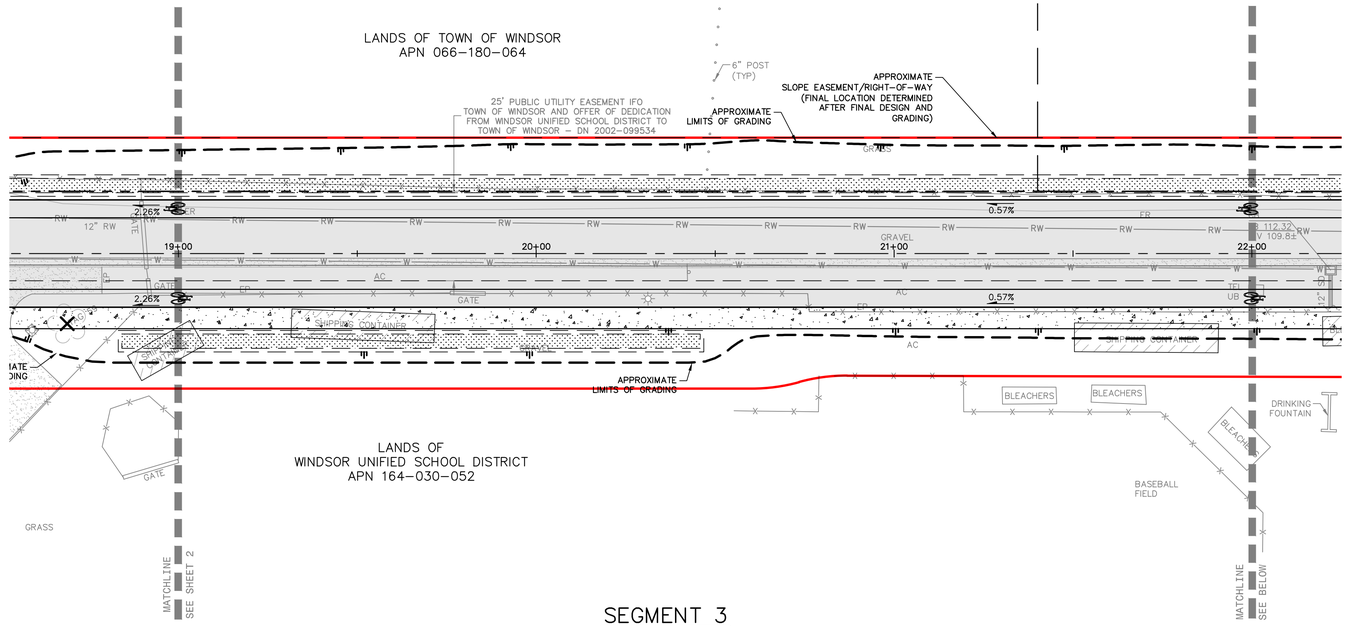
JOB NO. 20179004 SHEET 2 OF 4 SHEETS



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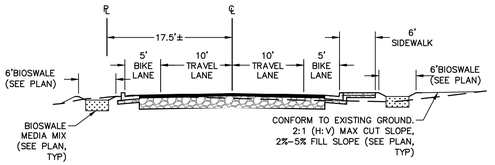

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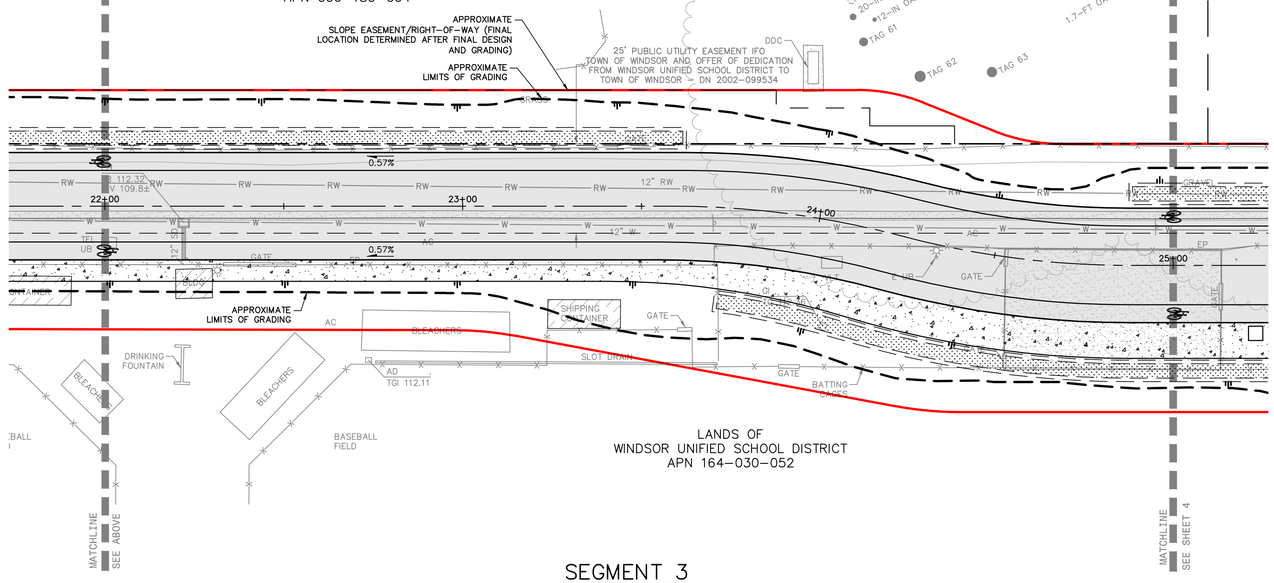

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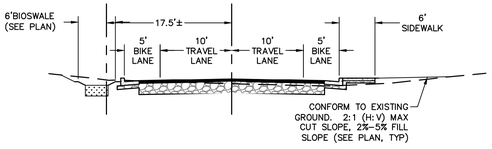

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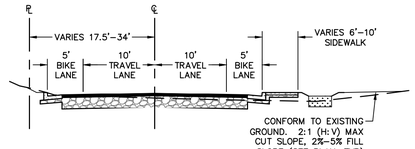

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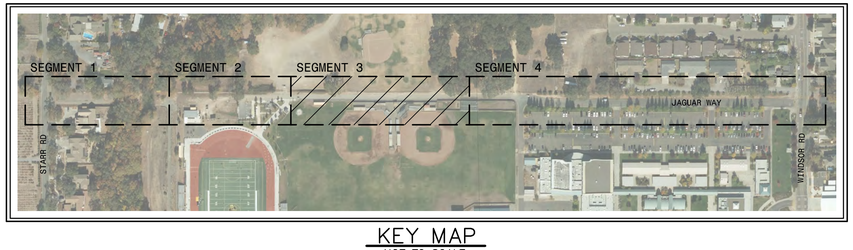

KEY MAP
NOT TO SCALE

20 0 20 40
scale 1" = 20' feet

OPTION 2
ROAD SEGMENT 3: STATION 19+00 TO 25+00

JAGUAR WAY EXTENSION
TOWN OF WINDSOR, CALIFORNIA
AUGUST 2018

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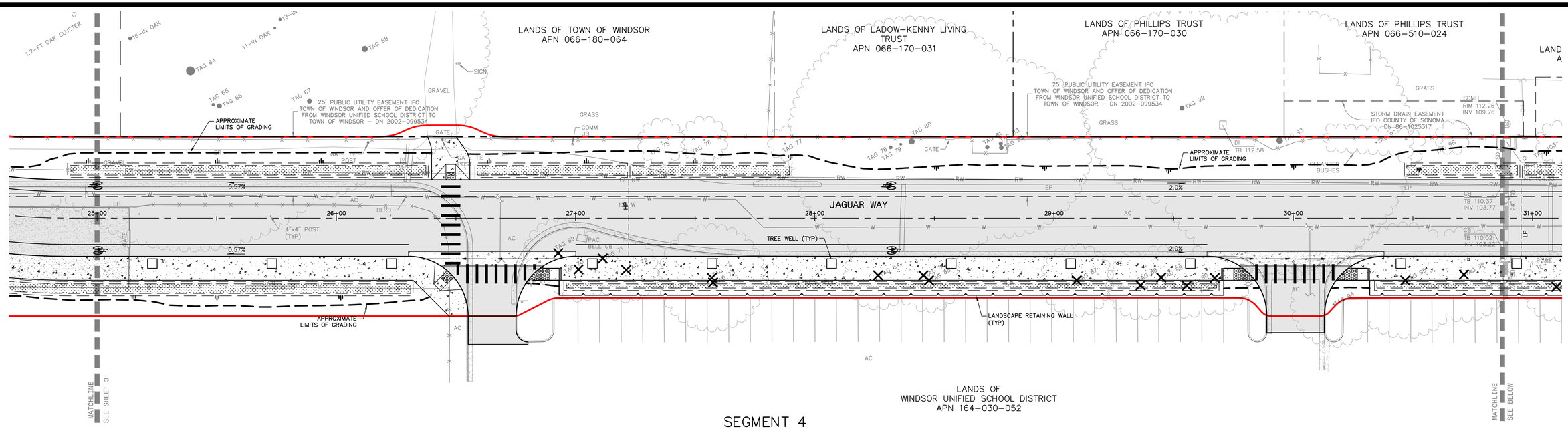
JOB NO. 20179004 SHEET 3 OF 4 SHEETS



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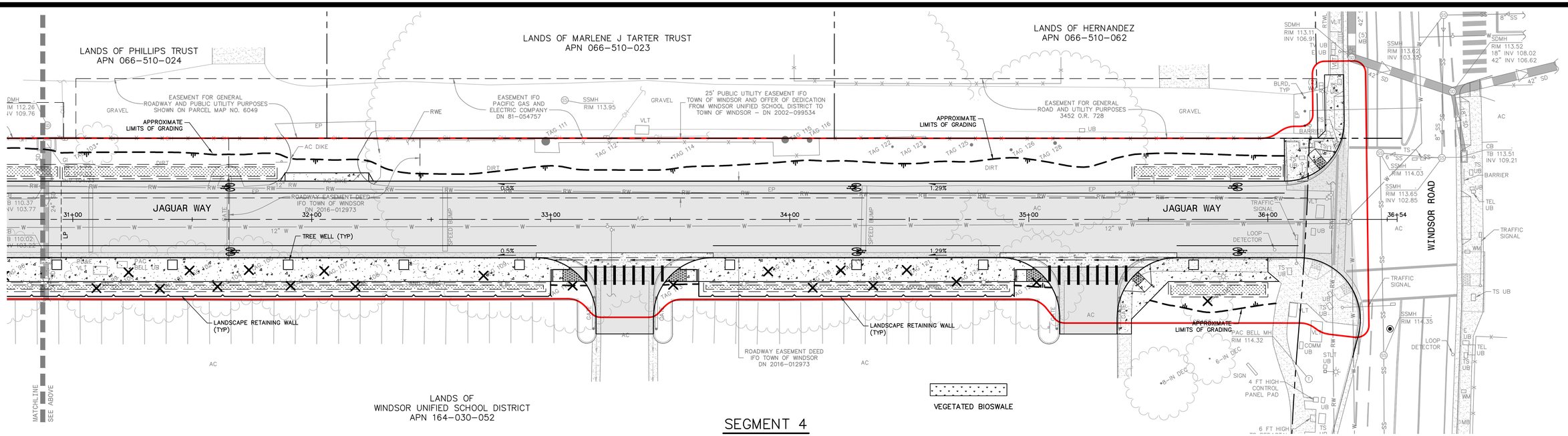

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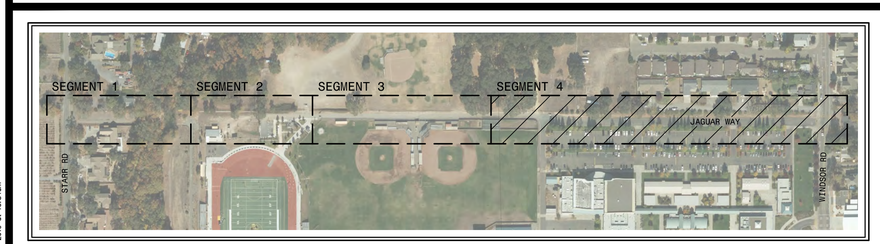

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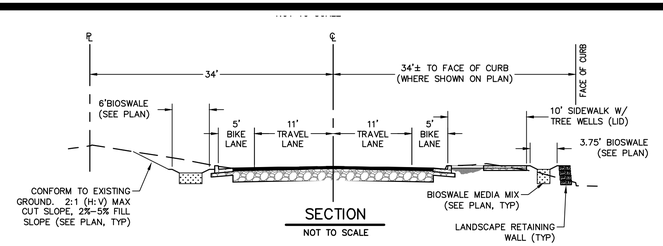

SECTION
NOT TO SCALE

OPTION 2
ROAD SEGMENT 4:
STATION 25+00 TO 36+50

JAGUAR WAY EXTENSION
TOWN OF WINDSOR, CALIFORNIA
AUGUST 2018

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20 0 20 40
scale 1" = 20' feet

JOB NO. 20179004

SHEET 4 OF 4 SHEETS

TOWN OF
WINDSOR

JAGUAR WAY EXTENSION - OPTION 3

TOWN OF WINDSOR
SONOMA COUNTY, CALIFORNIA

AUGUST 2018

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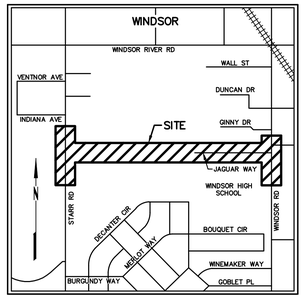
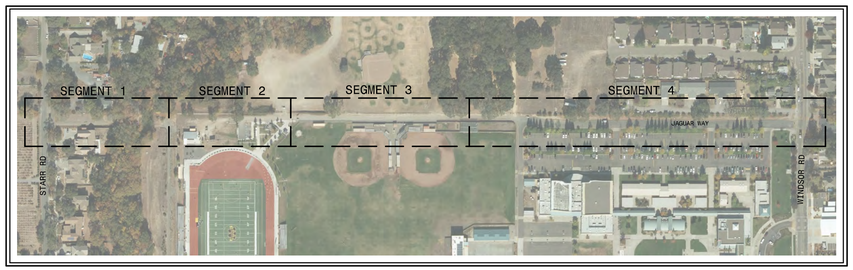


VICINITY MAP
NOT TO SCALE

INDEX OF SHEETS



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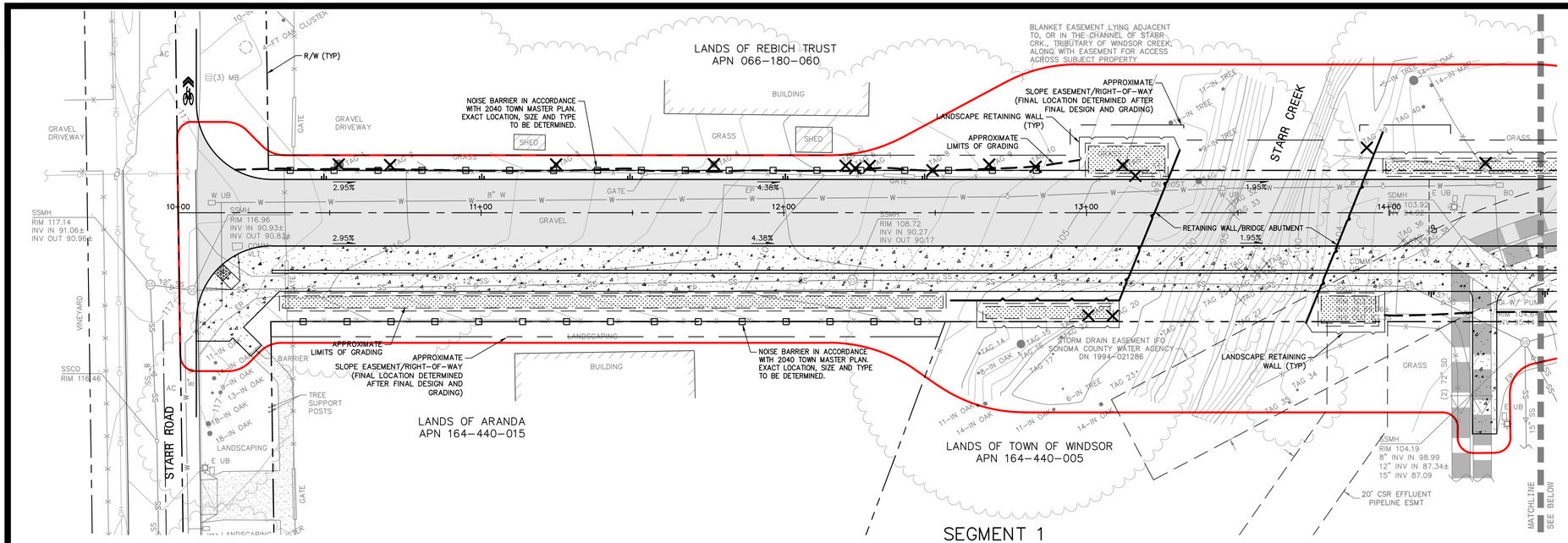

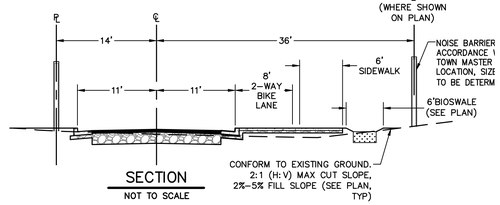

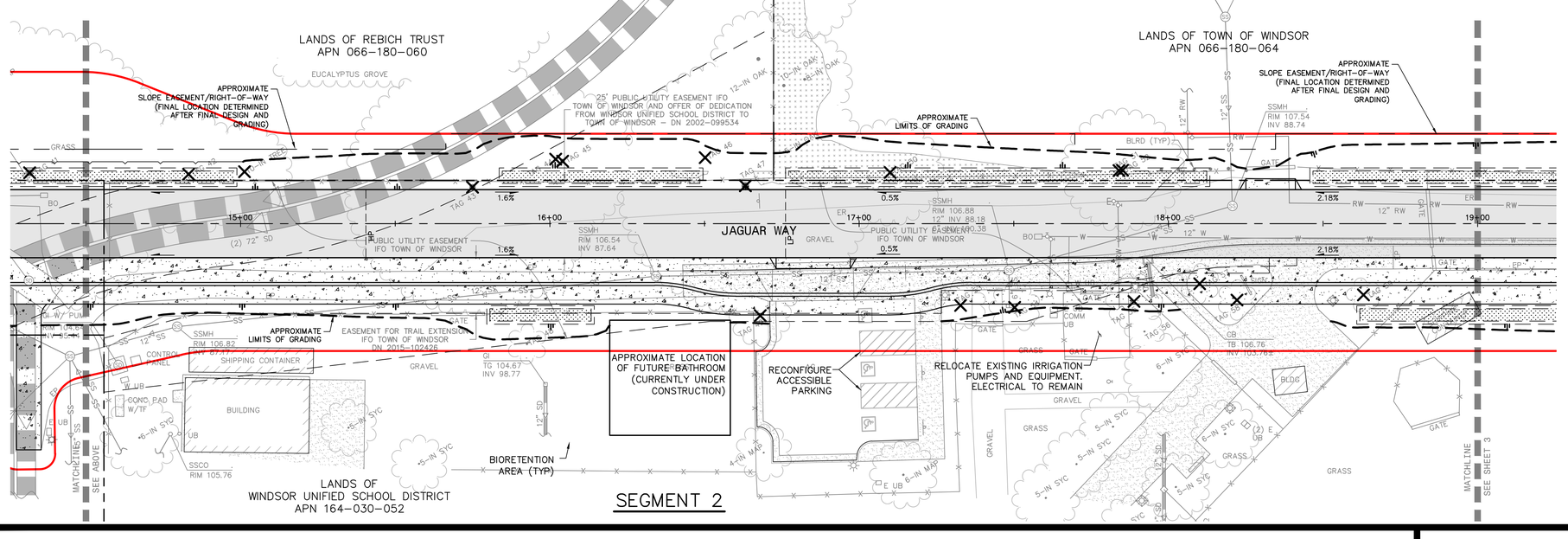

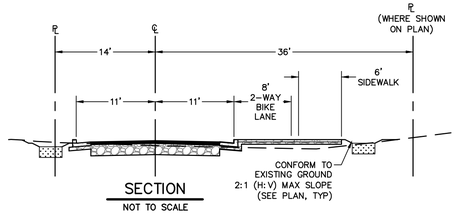

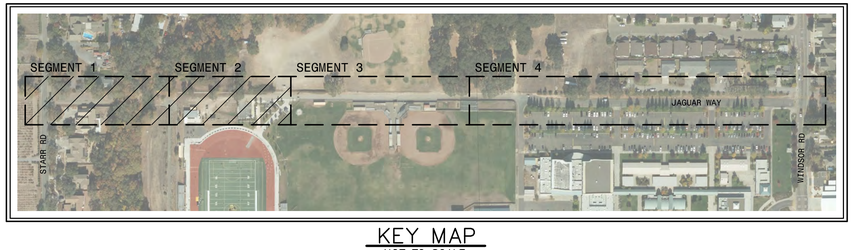

KEY MAP
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OPTION 3
ROAD SEGMENTS 1 & 2: STATION 10+00 TO 14+50 & 14+50 TO 19+00

JAGUAR WAY EXTENSION
TOWN OF WINDSOR, CALIFORNIA
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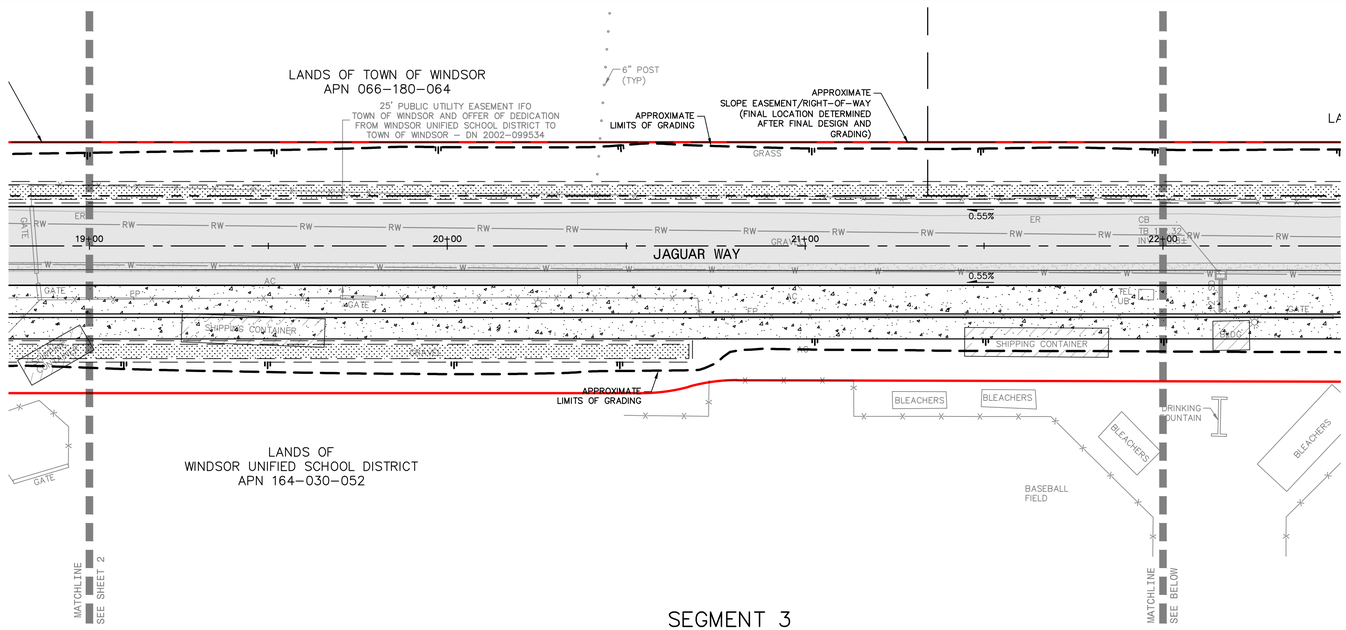
scale 1" = 20' feet (20 0 20 40)

JOB NO. 20179004

SHEET 2 OF 4 SHEETS



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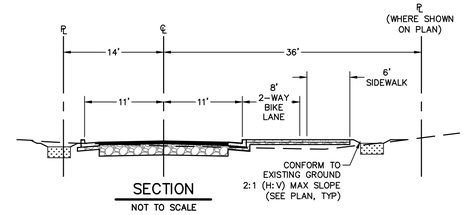

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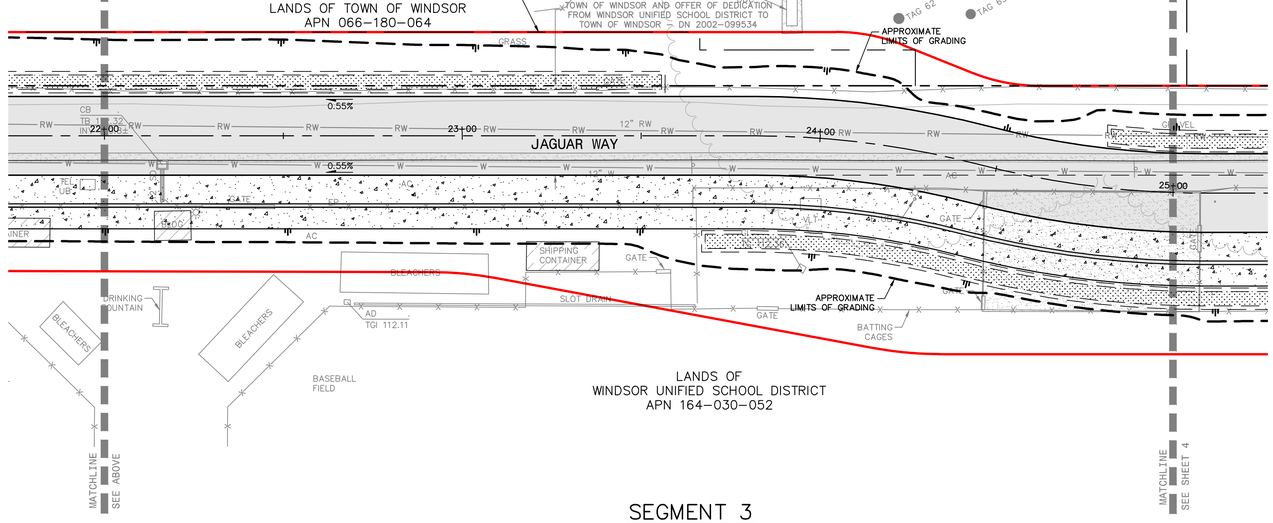

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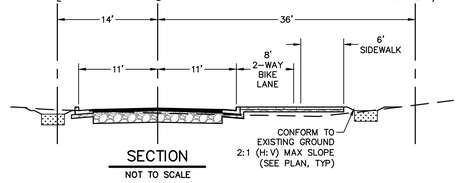

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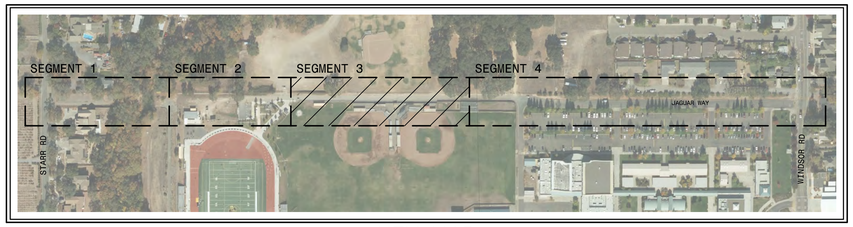

KEY MAP
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OPTION 3
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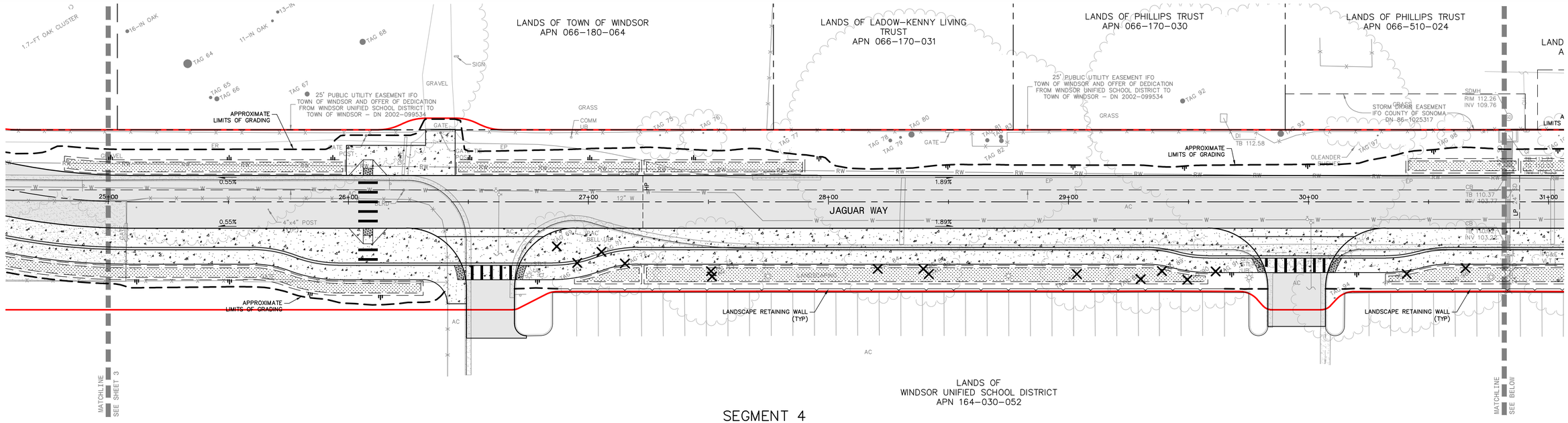
SHEET 3 OF 4 SHEETS



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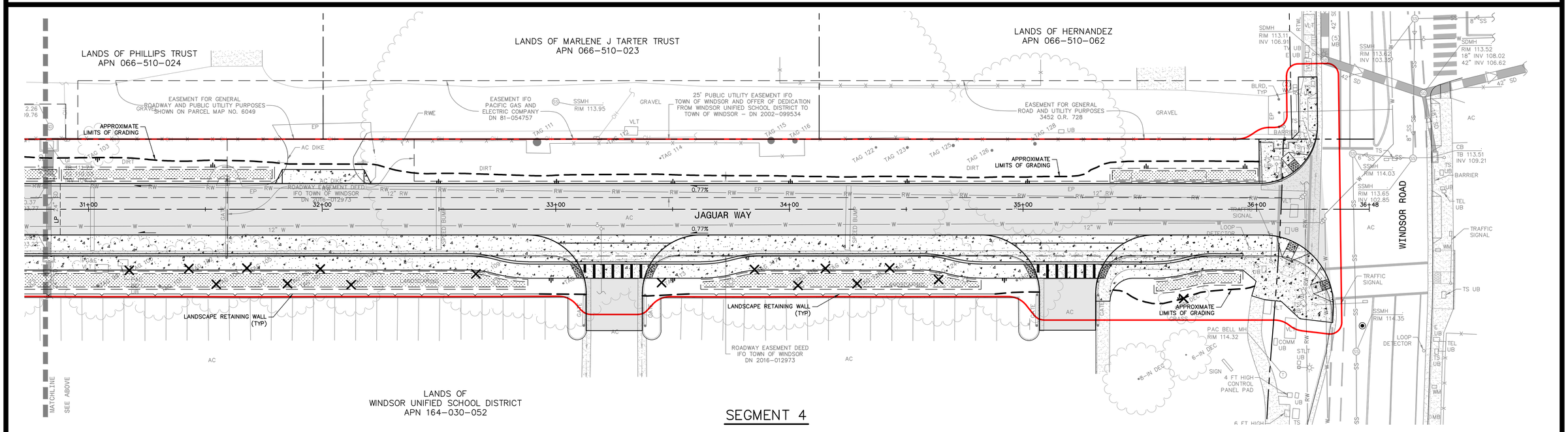

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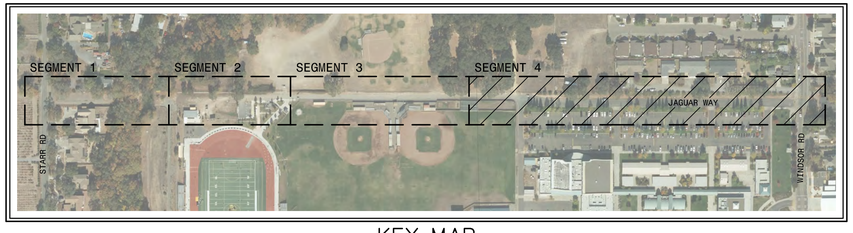

KEY MAP
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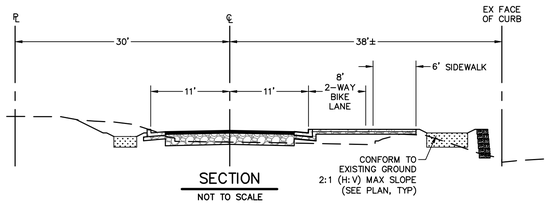

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OPTION 3
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JOB NO. 20179004

SHEET 4 OF 4 SHEETS

Post Sep 16, 2019 at 11:11am

- ControlPoint
- Data Points
- Potential Wetlands (1,989 Sq. Ft., 0.046 Acre)
- Created Wetland (CRW 1) (11,063 Sq. ft., 0.25 Acre)
- City Storm Drain Facility
- Storm Drain Inlets
- OHWM Starr Creek (C1) (2,028 Sq. Ft., 0.05 Acre)
- Delineation Area (~5.5 Acres)
- Project Area (~4.5 Acres)

Wetland #	Sq. Ft.	Acres
W 1	22	0.0005
W 2	1,922	0.0441
W 3	45	0.0010

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

Sheet 1. Draft Aquatic Resources Delineation Map
Jaguar Way Extension Project Site
Town of Windsor, California

Delineation Date: September 13, 2019
Delineation Conducted by: Hope Kingma & Christy Owens
Aerial Photograph Source: ESRI
Map Preparation Date: October 21, 2019

Starr Rd
Starr Rd
50 ft
Google
Legend
Map data ©2017 Google Imagery ©2017
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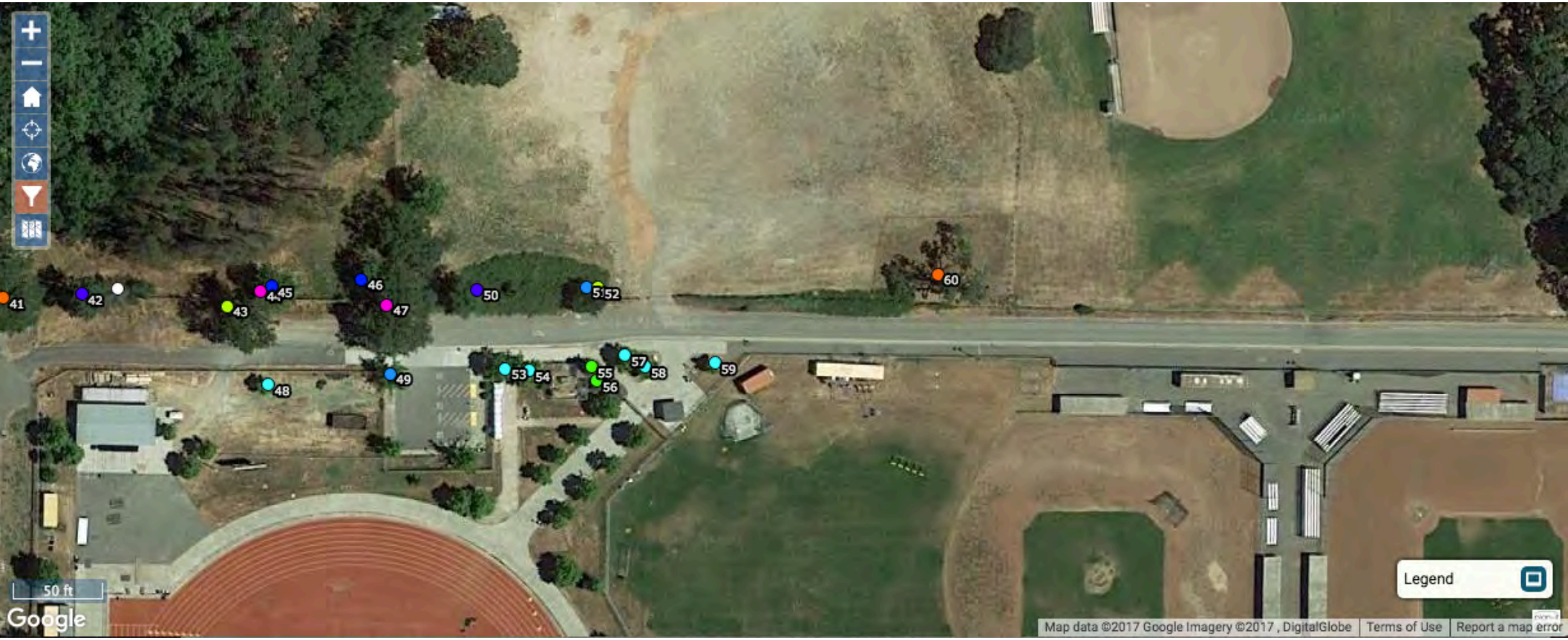
Report a map error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Legend
Map data ©2017 Google Imagery ©2017 , DigitalGlobe
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Legend
Map data ©2017 Google Imagery ©2017 , DigitalGlobe
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Windsor Rd
Windsor Rd
Windsor Rd
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Google
Map data ©201
Legend
Acacia (2)
Black oak (14)
Black walnut
Blue Oak (28)
Coast redwood (27)
Coastal live oak (4)
Cottonwood (3)
London planetree (6)
Oregon Ash (9)
Oregon Oak (4)
Red oak (2)
Tulip tree (11)
Valley oak (9)
Willow (8)
Not Specified (2)

Tree Id	Common Name	*Latin Name*	DBH	Health	Structure	Observations-Characteristics	Observation Comments
1	Blue Oak	*Quercus douglasii*	38	Good	Poor	Co-dominant Limbs, Crack, Included Bark, Weak attachments	Included fencing
2	Blue Oak	*Quercus douglasii*	16	Good	Fair	Co-dominant Limbs	
3	Black oak	*Quercus kelloggii*	17	Poor	Poor	Cavity, Deadwood, Epicormic shoots	Retrenching, decay at base
4	Blue Oak	*Quercus douglasii*	26	Good	Fair	Co-dominant Limbs	
5	Black oak	*Quercus kelloggii*		Good	Fair	Co-dominant tree, Supressed Tree, Topped, Trunk Leaning (W)	
6	Blue Oak	*Quercus douglasii*	17	Good	Fair	Co-dominant Limbs, Trunk Leaning (S), Weak attachments	
7	Black oak	*Quercus kelloggii*	11	Good	Good	Deadwood, Supressed Tree, Trunk Leaning (E)	
8	Black oak	*Quercus kelloggii*	23	Good	Good	Deadwood	
9	Black oak	*Quercus kelloggii*	14	Good	Good	Supressed Tree	
10	Black oak	*Quercus kelloggii*	14	Good	Good	Trunk Leaning (S)	
11	Black oak	*Quercus kelloggii*	24	Good	Good	Deadwood, Dominant tree	
12	Valley oak	*Quercus lobata*	8	Good	Good	Supressed Tree	
13	Valley oak	*Quercus lobata*	23	Good	Good	Dominant tree, Trunk Leaning (S)	
14	Black oak	*Quercus kelloggii*	8	Good	Good	Over pruned, Supressed Tree, Trunk Leaning (W)	
15	Valley oak	*Quercus lobata*	31	Good	Good	Deadwood, Dominant tree	Previously tagged as 231
16	Black oak	*Quercus kelloggii*	5	Good	Good	Supressed Tree, Trunk Leaning (S)	
17	Oregon Ash	*Fraxinus latifolia*	7	Good	Fair	Co-dominant Limbs, Vine growth	
18	Oregon Ash	*Fraxinus latifolia*	8	Good	Good	Deadwood, Vine growth	
19	Valley oak	*Quercus lobata*	14	Good	Good	Deadwood, Trunk Leaning (E)	
20	Valley oak	*Quercus lobata*	8	Good	Good	Deadwood, Trunk Leaning (S), Vine growth	
21	Oregon Ash	*Fraxinus latifolia*		Good	Fair	Co-dominant tree	

22	Valley oak	*Quercus lobata*	12	Good	Good		
23	Oregon Ash	*Fraxinus latifolia*	4	Good	Good	Supressed Tree, Trunk Leaning (S)	
24	Oregon Ash	*Fraxinus latifolia*	5	Good	Good	Cavity	
25	Willow	*Salix species*		Good	Fair	Broken Limb	In creek
26	Willow	*Salix species*		Good	Fair	Broken Limb, Co-dominant tree	In creek
27	Willow	*Salix species*	5	Good	Fair	Co-dominant Limbs, Trunk Leaning (W)	In creek at high water, leaning at base
28	Willow	*Salix species*	6	Good	Good		In creek
29	Willow	*Salix species*	7	Good	Good	Co-dominant Limbs	In creek
30	Willow	*Salix species*		Good	Fair	Leaning Trunk	In creek, leaning/spreading all directions
31	Willow	*Salix species*		Good		Broken Limb, Deadwood, Epicormic shoots, Leaning Trunk	Leaning all directions, in creek
32	Oregon Ash	*Fraxinus latifolia*	4	Good	Excellent		
33	Willow	*Salix species*	6	Good	Fair	Co-dominant Limbs, Epicormic shoots, Leaning Trunk, Trunk Leaning (W)	In creek at high water
34	Black oak	*Quercus kelloggii*	8	Good	Fair	Cavity, Vine growth	Stumpsprout
35	Black oak	*Quercus kelloggii*	7	Good	Fair	Cavity, Supressed Tree	Stumpsprout
36	Cottonwood	*Populus species*	7	Good	Good	Co-dominant Limbs	D@ 3'
37	Cottonwood	*Populus species*	7	Good	Good		
38	Cottonwood	*Populus species*	6	Good	Good	Trunk Leaning (S)	Growing in asphalt
39	Oregon Ash	*Fraxinus latifolia*	4	Good	Good		
40	Black oak	*Quercus kelloggii*	12	Good	Good	Deadwood, Supressed Tree, Trunk Leaning (S)	
41	Black oak	*Quercus kelloggii*	25	Good	Fair	Cavity, Co-dominant tree, Deadwood, Vine growth	D@2'
42	Oregon Oak	*Quercus garryana*	13	Good	Fair	Co-dominant Limbs	
43	Blue Oak	*Quercus douglasii*	22	Good	Good		
44	Valley oak	*Quercus lobata*	10	Good	Good	Trunk Leaning (W)	

45	Oregon Ash	*Fraxinus latifolia*	16	Good	Fair	Co-dominant tree, Included Bark	
46	Oregon Ash	*Fraxinus latifolia*	11	Good	Good	Trunk Leaning (N)	
47	Valley oak	*Quercus lobata*	27	Good	Good	Co-dominant tree	Fencing grown into tree
48	London planetree	*Platanus hybrida*	5	Good	Fair	Trunk Leaning (S)	
49	Red oak	*Quercus rubra*	6	Good	Good		
50	Oregon Oak	*Quercus garryana*	11	Good	Good	Co-dominant Limbs	
51	Red oak	*Quercus rubra*	6	Good	Good		Shares base with tree 52
52	Blue Oak	*Quercus douglasii*	10	Good	Fair	Co-dominant Limbs, Included Bark, Trunk Leaning (E)	Shares base with tree 51
53	London planetree	*Platanus hybrida*	7	Good	Good	Co-dominant Limbs	
54	London planetree	*Platanus hybrida*	7	Good	Excellent		
55	Coast redwood	*Sequoia sempervirens*	8	Good	Excellent		
56	Coast redwood	*Sequoia sempervirens*	5	Good	Excellent		
57	London planetree	*Platanus hybrida*	5	Good	Excellent		
58	London planetree	*Platanus hybrida*	5	Good	Excellent		
59	London planetree	*Platanus hybrida*	4	Good	Excellent		
60	Black oak	*Quercus kelloggii*	42	Poor	Poor	Broken Limb, Cavity, Deadwood, Over pruned	Burrowing animals near root base
61	Blue Oak	*Quercus douglasii*	27	Good	Good	Co-dominant tree, Trunk Leaning (S)	
62	Blue Oak	*Quercus douglasii*	35	Good	Fair	Co-dominant tree, Included Bark	Diameter at 2.5 feet
63	Blue Oak	*Quercus douglasii*	32	Good	Fair	Weak attachments	
64	Blue Oak	*Quercus douglasii*	41	Fair	Fair	Cavity, Co-dominant tree, Deadwood, Epicormic shoots, Over pruned	Retrenching
65	Blue Oak	*Quercus douglasii*	14	Good	Good	Supressed Tree, Trunk Leaning (S)	Shares base with tree 66
66	Blue Oak	*Quercus douglasii*	22	Good	Good	Supressed Tree, Trunk Leaning (S)	Shares base with tree 65

67	Blue Oak	*Quercus douglasii*	22	Good	Good	Over pruned, Trunk Leaning (S)	Habitat tree
68	Blue Oak	*Quercus douglasii*	28	Good	Fair	Co-dominant Limbs	
69	Coast redwood	*Sequoia sempervirens*	14	Good	Excellent		
70	Coast redwood	*Sequoia sempervirens*	13	Good	Excellent		
71	Coast redwood	*Sequoia sempervirens*	12	Good	Excellent		
72	Coast redwood	*Sequoia sempervirens*	13	Good	Excellent		
73	Coast redwood	*Sequoia sempervirens*	16	Good	Excellent		
74	Tulip tree	*Liriodendron tulipifera*	9	Good	Poor		
75	Blue Oak	*Quercus douglasii*	6	Good	Good		
76	Blue Oak	*Quercus douglasii*	6	Good	Fair	Co-dominant tree, Included Bark, Weak attachments	
77	Coastal live oak	*Quercus agrifolia*		Good	Fair	Co-dominant tree, Included Bark	
78	Blue Oak	*Quercus douglasii*	16	Good	Good	Trunk Leaning (W)	
79	Blue Oak	*Quercus douglasii*	11	Fair	Good	Deadwood, Epicormic shoots, Trunk Leaning (N)	
80	Blue Oak	*Quercus douglasii*	28	Good	Good	Deadwood	
81	Blue Oak	*Quercus douglasii*	18	Good	Good	Trunk Leaning (W)	No tag, estimated diameter, private property
82	Blue Oak	*Quercus douglasii*	20	Excellent	Good	Trunk Leaning (S)	Estimated diameter private property
83	Blue Oak	*Quercus douglasii*	18	Fair	Fair	Co-dominant tree, Deadwood	No tag estimated diameter private property
84	Coast redwood	*Sequoia sempervirens*	14	Good	Excellent		
85	Coast redwood	*Sequoia sempervirens*	13	Good	Excellent		
86	Coast redwood	*Sequoia sempervirens*	14	Good	Excellent		
87	Tulip tree	*Liriodendron tulipifera*	6	Good	Poor		
88	Coast redwood	*Sequoia sempervirens*	14	Good	Excellent		

89	Coast redwood	*Sequoia sempervirens*	13	Good	Excellent		
90	Coast redwood	*Sequoia sempervirens*	13	Good	Excellent		
91	Coast redwood	*Sequoia sempervirens*	15	Good	Excellent		
92	Blue Oak	*Quercus douglasii*	22	Good	Good		No tag estimated diameter private property
93	Blue Oak	*Quercus douglasii*	30	Good	Good	Deadwood, Vine growth	Estimated diameter private property
94	Tulip tree	*Liriodendron tulipifera*	7	Good	Good		
95	Tulip tree	*Liriodendron tulipifera*	10	Good	Good	Co-dominant Limbs	
96	Tulip tree	*Liriodendron tulipifera*	8	Good	Good		
97	Coastal live oak	*Quercus agrifolia*	6	Good	Poor	Co-dominant tree, Included Bark, Weak attachments	Diameter at 3 feet
98	Coastal live oak	*Quercus agrifolia*	6	Good	Good		No tag estimated diameter no access
99	Coast redwood	*Sequoia sempervirens*	14	Good	Excellent		
100	Coast redwood	*Sequoia sempervirens*	15	Good	Excellent		
101	Coast redwood	*Sequoia sempervirens*	14	Good	Excellent		
102	Coast redwood	*Sequoia sempervirens*	12	Good	Excellent		
103	Black walnut	*Juglans nigra*	4	Good	Good	Trunk Leaning (S)	
104	Coast redwood	*Sequoia sempervirens*	12	Good	Excellent		
105	Coast redwood	*Sequoia sempervirens*	14	Good	Excellent		
106	Coast redwood	*Sequoia sempervirens*	14	Good	Excellent		
107	Coast redwood	*Sequoia sempervirens*	13	Good	Fair	Co-dominant tree, Included Bark, Weak attachments	Diameter measured at 3 feet
108	Coast redwood	*Sequoia sempervirens*	13	Good	Excellent		

109	Tulip tree	*Liriodendron tulipifera*	7	Poor	Fair	Co-dominant Limbs, Included Bark	
110	Tulip tree	*Liriodendron tulipifera*	8	Good	Excellent		
111	Blue Oak	*Quercus douglasii*	41	Good	Good	Broken Limb, Cavity, Deadwood	PG&E clearance pruned
112	Coastal live oak	*Quercus agrifolia*	4	Good	Good		Growing into fence
113	Tulip tree	*Liriodendron tulipifera*	6				
114	Acacia	*Acacia species*		Good	Poor	Co-dominant tree, Included Bark	
115	Blue Oak	*Quercus douglasii*	35	Poor	Fair	Cavity, Deadwood, Over pruned	Tree is in severe decline
116	Blue Oak	*Quercus douglasii*	25	Good	Good	Trunk Leaning (E)	
117	Tulip tree	*Liriodendron tulipifera*	7	Good	Good		
118	Coast redwood	*Sequoia sempervirens*	12	Good	Excellent		
119	Coast redwood	*Sequoia sempervirens*	14	Good	Excellent		
120	Coast redwood	*Sequoia sempervirens*	14	Good	Excellent		
121	Coast redwood	*Sequoia sempervirens*	13	Good	Excellent		
122	Blue Oak	*Quercus douglasii*	10	Good	Excellent		
123	Valley oak	*Quercus lobata*	12	Good	Excellent		
124	Tulip tree	*Liriodendron tulipifera*	7	Fair	Good		
125	Oregon Oak	*Quercus garryana*	14	Good	Good		
126	Oregon Oak	*Quercus garryana*	12	Good	Good	Trunk Leaning (W)	
127	Tulip tree	*Liriodendron tulipifera*	10	Good	Excellent		
128	Acacia	*Acacia species*		Good	Poor	Co-dominant tree, Included Bark	