

**Exhibit C**

Biological Resource Assessment

[Attached]

# **BIOLOGICAL RESOURCES ANALYSIS REPORT**

**FOR THE**

**TA O'HARA PROPERTY**

**CITY OF BRENTWOOD, CONTRA COSTA COUNTY, CALIFORNIA**



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**JUNE 2023**

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This report should be cited as: Olberding Environmental, Inc. June 2023. *Biological Resources Analysis Report for the TA O'Hara Property, City of Brentwood, Contra Costa County, California*. Prepared for Tekin & Associates, LLC.

## SUMMARY

On June 8, 2023, Olberding Environmental, Inc. conducted a field reconnaissance survey of the TA O'Hara Property (Property) for the purpose of identifying sensitive plant and wildlife species, sensitive habitats, and biological constraints associated with the Property. The Property surveyed is comprised of approximately 0.78 acre within the City of Brentwood, Contra Costa County, California.

A query of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), the California Natural Diversity Database (CNDDB), and the California Native Plant Society (CNPS) showed that there are no special-status plants or wildlife that have a potential to occur on the Property. This is due to the small, isolated nature of the Property, the history of regular disturbance, and the lack of any trees or shrubs that would provide cover for prey species or perching areas for foraging species. There is a CNDDB occurrence of Antioch Dunes evening primrose (*Oenothera deltoides* ssp. *howellii*) that overlaps with the Property. However, the required habitat for this species (inland dunes) does not occur on the Property or in the vicinity. Therefore, the species is presumed absent from the Property.

The only habitat type identified on the Property is non-native annual grassland, and there are no wetland or other water features that occur on or adjacent to the Property. The Property is located within the final designated critical habitat for the Delta smelt. However, since there are no aquatic features on the Property, there will be no effect to the species' critical habitat.

## 1.0 INTRODUCTION

Olberding Environmental, Inc. has conducted a biological resources analysis of the TA O'Hara Property, located in the City of Brentwood, Contra Costa County, California. This biological resources analysis includes a review of pertinent literature on relevant background information and habitat characteristics of the site. Our review includes researching existing information contained in an IPaC provided by the USFWS, occurrences within the CNDDB maintained by the CDFW, and the CNPS *Inventory of Rare and Endangered Vascular Plants of California*. Also included was a review of information related to species of plants and wildlife that could potentially utilize the described habitats identified on and immediately surrounding the Property.

## 2.0 LOCATION

The Property is located at the corner of O'Hara Avenue and Lone Tree Way, in the City of Brentwood, Contra Costa County, California and is located approximately 1.5 miles east of

Highway 4. The Property is bounded by residential development on the west and north, and by O'Hara Avenue and Lone Tree Way on the East and south, respectively.

Attachment 1, Figure 1 depicts the regional location of the Property in Contra Costa County, while Attachment 1, Figure 2 illustrates the vicinity of the Property in relationship to the City of Brentwood. Attachment 1, Figure 3 identifies the location of the Property on the Brentwood USGS 7.5' Quadrangle. An aerial photograph of the Property has been included as Attachment 1, Figure 4.

Access to the Property is provided from I-5. From I-5, merge onto Highway 4, west. Continue straight onto Byron Highway. Continue straight onto Brentwood Blvd. Travel for 2 miles and then take a right onto Sellers Ave. Travel for almost 3 miles and then take a left onto Sunset Blvd. Travel for 1 mile then turn right onto Brentwood Blvd. After 0.5 mile, turn left onto Lone Tree Way. The property is 1 mile to the east, on the right side of the road.

### **3.0 PROPERTY DESCRIPTION**

The Property encompasses approximately 0.78 acre of land in the City of Brentwood. The Property consists of an undeveloped lot, surrounded by urban and residential development. The property includes non-native annual grassland habitat that is regularly mowed. Historic aerial imagery from 1939 shows the Property as part of an orchard. However, by 1993 imagery shows the property consisted of a single-family residence. The surrounding property was developed into a large residential development starting in 2006, and the residence located on the Property was removed by 2008. The property has remained an undeveloped, mowed lot since then.

The non-native grassland habitat was dominated by species such as wild oat (*Avena fatua*), wall barley (*Hordeum murinum*), and rip-gut brome (*Bromus diandrus*). The Property is completely level and sits at approximately 85 feet in elevation.

### **4.0 METHODS OF ANALYSIS FOR GENERAL BIOLOGICAL RESOURCES**

A special-status plant and wildlife species database search and review was conducted using the CNDDDB and other sources. An additional search was conducted for special-status plants using CNPS *Inventory* on-line. Special-status species reports were accessed by searching the CNDDDB database for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay USGS 7.5-minute quadrangles which surround the Property, and by examining those species that have been identified in the vicinity of the Property. These quadrangles will be henceforth noted as surrounding quads. The database report identified special-status species known to occur in the

region or those that have the potential to occur in the vicinity of the Property. The CNDDDB report was used to focus special-status species analysis of the site prior to the reconnaissance surveys.

Olberding Environmental biologists conducted a reconnaissance-level survey of the Property on June 8, 2023. The survey consisted of walking throughout the Property and evaluating the site and adjacent lands for potential biological resources. Existing conditions, observed plants and wildlife, adjacent land use, soils and potential biological resource constraints were recorded during the visit. Plant and wildlife species observed within and adjacent to the Property during the reconnaissance survey are listed in Attachment 2, Table 1. Site photographs are provided in Attachment 3 of this document. Attachment 1, Figure 9 shows where each site photo was taken.

The objectives of the field survey were to determine the potential presence or absence of special-status species habitat listed in the CNDDDB database report and to identify any wetland areas that could be potentially regulated by the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and/or California Department of Fish and Wildlife (CDFW) (CNDDDB 2023). In addition, the Olberding Environmental biologist looked for other potential sensitive species or habitats that may not have been obvious from background database reports or research. Surveys conducted after the growing season or conducted outside of the specific flowering period for a special-status plant cannot conclusively determine the presence or absence of such plant species; therefore, site conditions and habitat type were used to determine potential for occurrence. When suitable habitat was observed to support a special-status plant or animal species, it was noted in the discussion for that particular species. Regulatory agencies evaluate the possibility of occurrence based on habitats observed on-site and the degree of connectivity with other special-status animal habitats in the vicinity of the Property. These factors are discussed in each special-status plant or animal section. Potential for occurrence of each special-status or protected plant and animal species was evaluated using the following criteria.

- **Present:** The species has been recorded by CNDDDB or other literature as occurring on the Property and/or was observed on the Property during the reconnaissance survey or protocol surveys.
- **May Occur:** The species has been recorded by CNDDDB or other literature as occurring within five miles of the Property, and/or was observed within five miles of the Property, and/or suitable habitat for the species is present on the Property or its immediate vicinity.
- **Not Likely to Occur:** The species has historically occurred on or within five miles of the Property but has no current records. The species occurs within five miles of the Property,

but only marginally suitable habitat conditions are present. The Property is likely to be used only as incidental foraging habitat or as an occasional migratory corridor.

- **Presumed Absent:** The species will not occur on the Property due to the absence of suitable habitat conditions, and/or the lack of current occurrences. Alternatively, if directed or protocol-level surveys were done during the proper occurrence period and the species was not found, it is presumed absent.

Sources consulted for agency status information include USFWS (2023a) for federally listed species and CDFW (2023a) for State of California listed species. Based on information from the above sources, Olberding Environmental developed a target list of special-status plants and animals with the potential to occur within or in the vicinity of the Property (Attachment 2, Table 2).

#### **4.1 Soils Evaluation**

The soils present on a property may determine if habitat on the site is suitable for certain special-status plants and animals. The host plants of some special-status invertebrates may also require specific soil conditions. In the absence of suitable soil conditions, special-status plants or animals requiring those conditions would be presumed absent. Information regarding soil characteristics for the Property was obtained by viewing the Natural Resources Conservation Service (NRCS) Web Soil Survey report for the Property (NRCS 2023).

#### **4.2 Plant Survey Methods**

The purposes of the botanical surveys were (1) to characterize the habitat types (plant communities) of the study area; (2) to determine whether any suitable habitat for any special-status plant species occurs within the study area; and (3) to determine whether any sensitive habitat types (e.g., wetlands) occur within the study area. Site conditions and plant habitat surveys are important tools in determining the potential occurrence of plants not recorded during surveys (e.g., special-status plants) because presence cannot conclusively be determined if field surveys are conducted after the growing season or conducted outside a specific flowering period.

##### ***4.2.1 Review of Literature and Data Sources***

The biologist conducted focused surveys of literature and special-status species databases in order to identify special-status plant species and sensitive habitat types with potential to occur in the study area. Sources reviewed included the CNDDDB occurrence records (CNDDDB 2023) and CNPS *Inventory* (Skinner and Pavlik 1994) for the surrounding quads; and standard flora (The



Jepson Manual, Hickman 2012). From the above sources, a list of special-status plant species with potential to occur in the Property vicinity was developed (Attachment 2, Table 2).

#### **4.2.2 Field Surveys**

Biologists from Olberding Environmental conducted a reconnaissance-level survey to determine habitat types and the potential for special-status plants based on the observed habitat types. All vascular plant species that were identifiable at the time of the survey were recorded and identified using keys and descriptions in The Jepson Manual (Hickman 2012).

The habitat types occurring on the Property were characterized according to pre-established categories. In classifying the habitat types on the site, the generalized plant community classification schemes of *A Manual of California Vegetation* (Sawyer, Keeler-Wolf, and Evens 2009) were consulted. The final classification and characterization of the habitat types of the study area were based on field observations.

### **4.3 Wildlife Survey Methods**

The purposes of the wildlife survey were to identify special-status wildlife species and/or potential special-status wildlife habitats within the Property.

#### **4.3.1 Review of Literature and Data Sources**

A focused review of literature and data sources was conducted in order to determine which special-status wildlife species had potential to occur in the vicinity of the Property. Current agency status information was obtained from USFWS (2023a) for species listed as Threatened or Endangered, as well as Proposed and Candidate species for listing, under the federal ESA; and from CDFW (2023a, 2023b) for species listed as Threatened or Endangered by the state of California under the CESA, or listed as “species of special concern” by CDFW. From the above sources, a list of special-status wildlife species with potential to occur in the Property vicinity was developed (Attachment 2, Table 2).

#### **4.3.2 Field Surveys**

**General Wildlife Survey** – An Olberding Environmental biologist conducted a general survey of species habitat within the entire Property. The purpose of the habitat survey was to evaluate wildlife habitats and the potential for any protected species to occur on or adjacent to the Property.

## **5.0 RESULTS FOR GENERAL BIOLOGICAL RESOURCES**

The search and review of the CNDDDB database reports revealed the occurrence of special-status plant and wildlife species that occur in the habitats found within the Property boundaries (CNDDDB 2023). The CNDDDB database and background data were reviewed for the surrounding quads. Plant occurrences shown on Attachment 1, Figure 5 and wildlife occurrences shown on Attachment 1, Figure 6 are located within 5 miles of the Property and were reviewed for their potential to occur on the Property based on general habitat types. Results of the species review is tabulated on Attachment 2, Table 2. Critical habitat within the surrounding quads is shown on Attachment 1, Figure 7.

### **5.1 Soil Evaluation Results**

The NRCS (2023) reports four soil types within the Property. A detailed map of the soils for the Property can be found in Attachment 1, Figure 8. The soils mapped include the following types as described in the Soil Survey of Contra Costa County, California (USGS 1977):

- **RbA: Ricon Clay Loam, 0 to 2 percent slopes, MLRA 14** – The Rincon series consists of well drained soils, mostly on benches. These soils formed in alluvial valley fill from sedimentary rock. Permeability is slow, and the available water capacity is 7 to 10 inches.

### **5.2 Plant Survey Results**

#### ***5.2.1 Floristic Inventory and Habitat Characterization***

The Property supports one habitat type consisting of non-native annual grassland. In classifying this habitat type on the Property, generalized plant community classification schemes were used (Sawyer, Keeler-Wolf, and Evens 2009). The final classification and characterization of the habitat type of the Property was based on field observations. Special-status plant species occurrences that are located within 5 miles of the Property are shown in Attachment 1, Figure 5.

The habitat type and a description of the plant species present within the habitat type are provided below. The habitat found on the Property is mapped on Attachment 1, Figure 10. Dominant plant species are also noted. A complete list of plant species observed on the Property can be found within Attachment 2, Table 1.

#### **Non-native Annual Grassland**

The entire Property consists of non-native annual grassland habitat. The grassland habitat is regularly mowed and has been for decades. Dominant vegetation includes wild oat, wall barley, rip-gut brome, field bindweed (*Convolvulus arvensis*), and Italian rye grass (*Festuca perennis*). This habitat is regularly disturbed and is not adjacent to any other natural habitat types.

### 5.2.2 *Special-Status Plant Species*

Special-status plant species include species listed as Rare, Threatened, or Endangered by the USFWS (2023a) or by the State of California (CDFW 2023a). Federal Proposed and Candidate species (USFWS, 2023b) are also special-status species. Special-status species also include species listed on List 1A, List 1B, or List 2 of the CNPS Inventory (Skinner and Pavlik, 1994; CNPS 2023). All species in the above categories fall under state regulatory authority under the provisions of CEQA, and may also fall under federal regulatory authority. Considered special-status species are species included on List 3 (Plants About Which We Need More Information—A Review List) or List 4 (Plants of Limited Distribution—A Watch List) of the CNPS *Inventory*. These species are considered to be of lower sensitivity and generally do not fall under specific state or federal regulatory authority. Specific mitigation considerations are not generally required for List 3 and List 4 species.

Attachment 2, Table 2 includes a list of special-status plants with the potential to occur within or in the immediate vicinity of the Property based on a review of the surrounding quads. The special-status plant species identified by the CNDDDB as potentially occurring on the Property are known to grow only from specific habitat types. The specific habitats or “micro-climate” necessary for many of the plant species to occur are not found within the boundaries of the Property. Occurrences of special-status plants within a five-mile radius of the Property are described in detail (Attachment 1, Figure 5).

No special-status plant species were determined to have a potential to occur on the Property. This is due to the small, isolated nature of the Property, the high concentration of invasive species, and the regular mowing of the Property. Additionally, the Property has a long history of disturbance, including being completely re-graded in 2008. There is a CNDDDB occurrence of Antioch Dunes evening primrose (*Oenothera deltoides* ssp. *howellii*) that overlaps with the Property. However, the required habitat for this species (inland dunes) does not occur on the Property or in the vicinity. Therefore, the species is presumed absent from the Property.

### **5.3 Wildlife Survey Results**

#### **5.3.1 General Wildlife Species and Habitats**

A complete list of wildlife species observed within the Property can be found in Attachment 2, Table 1. Wildlife species observed within they habitat present on the Property, and special-status wildlife that may occur within the habitat types are discussed below:

#### **Non-native Annual Grassland**

The annual grassland habitat provides minimal to no foraging habitat for any wildlife species. The only wildlife species observed in the vicinity of the Property was one western scrub jay (*Aphelocoma californica*), and one American crow (*Corvus brachyrhynchos*) that flew over the Property. Due to the small, isolated nature of the Property, the regular disturbance, and lack of any cover from predators, it is unlikely to be used by most wildlife species. It was also determined that the Property does not provide any potential habitat for special-status wildlife.

### **6.0 CONCLUSIONS**

#### **6.1 Wetlands**

There are no wetlands or other water features occurring on the Property or adjacent to the Property.

#### **6.2 Special-status Plants**

It was determined that there is no potential for any special-status plants to occur on the Property. This is due to the isolated nature of the Property, the high concentration of invasive species, and the regular mowing of the Property. Additionally, the Property has a long history of disturbance, including being completely re-graded in 2008. There is a CNDDB occurrence of Antioch Dunes evening primrose (*Oenothera deltoides* ssp. *howellii*) that overlaps with the Property. However, the required habitat for this species (inland dunes) does not occur on the Property or in the vicinity. Therefore, the species is presumed absent from the Property.

#### **6.3 Special-status Wildlife**

It was determined that there is no potential for any special-status wildlife to occur on the Property. The Property is small and isolated from any other natural habitats, it is regularly

disturbed, and there are no trees or shrubs that could provide cover from predators or foraging areas.

## 9.0 LITERATURE CITED

- California Department of Fish and Wildlife (CDFW). 2023a. State and federally listed Endangered, Threatened, and Rare plants of California. Accessed June 16, 2023. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390&inline>
- \_\_\_\_\_. 2023b. Species of Special Concern. Accessed June 16, 2023. <https://wildlife.ca.gov/Conservation/SSC>
- California Natural Diversity Data Base (CNDDB). 2023. Computer listings and map locations of historic and current recorded occurrences of special-status species and natural communities of special concern for USGS 7.5-minute quadrangle maps: Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay. Accessed on June 16, 2023.
- California Native Plant Society (CNPS), Rare Plant Program. 2023. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Accessed June 16, 2023. <http://www.rareplants.cnps.org>
- CEQA. 2016. The California Environmental Quality Act. Appendix G, Environmental Checklist Form. Accessed on June 16, 2023. Available online at [https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2016\\_CEQA\\_Statutes\\_and\\_Guidelines\\_Appendix\\_G.pdf](https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2016_CEQA_Statutes_and_Guidelines_Appendix_G.pdf)
- Hickman, James C., Ed. 2012. The Jepson Manual, Higher Plants of California. University of California Press. Berkeley, CA. 1400 pp.
- Holland (1986) Preliminary Description of the Natural Communities of California. CDFW.
- Natural Resources Conservation Service (NRCS). 2023. United States Department of Agriculture. Web Soil Survey. Accessed June 15, 2023. Available on-line at <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>.
- Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. A manual of California vegetation. 2nd Ed. California Native Plant Society, Sacramento, CA.
- Skinner, M. W. and B. M. Pavlik (eds.). 1994. Inventory of rare and endangered vascular plants of California. California Native Plant Society Special Publication No. 1 (5th edition). California Native Plant Society, Sacramento, CA. 338 pp.
- U.S. Department of Agriculture, Soil Conservation Service. 1977. Soils Survey of Contra Costa County, California. Natural Resources Conservation Service.

United States Fish and Wildlife Service (USFWS). 2023a. Endangered and threatened plant and animal species. Accessed on June 16, 2023. <https://www.fws.gov/program/endangered-species>

\_\_\_\_\_. 2023b. Endangered and threatened wildlife and plants; review of plant and animal taxa that are Candidates or Proposed for listing as Endangered or Threatened; annual notice of findings on recycled petitions; annual description of progress on listing actions; proposed rule. Accessed on June 16, 2023. <https://ecos.fws.gov/ecp/>

\_\_\_\_\_. 2007. Bald Eagle Management Guidelines and Conservation Measures. The Bald and Golden Eagle Protection Act. Accessed on June 16, 2023. Available on-line at <http://cybrary.fomb.org/pages/Bald%20Eagle%20Management%20Guidelines%20and%20Conservation%20Measur.pdf>.

## **ATTACHMENTS**



## **ATTACHMENT 1**

### **FIGURES**

<b>Figure 1</b>	<b>Regional Map</b>
<b>Figure 2</b>	<b>Vicinity Map</b>
<b>Figure 3</b>	<b>USGS Quadrangle Map</b>
<b>Figure 4</b>	<b>Aerial Photograph</b>
<b>Figure 5</b>	<b>CNDDDB Map of Special Status Plants</b>
<b>Figure 6</b>	<b>CNDDDB Map of Special Status Wildlife</b>
<b>Figure 7</b>	<b>USFWS Designated Critical Habitat</b>
<b>Figure 8</b>	<b>Soils Map</b>
<b>Figure 9</b>	<b>Photo Location Map</b>
<b>Figure 10</b>	<b>Habitat Map</b>



**Figure 1: Regional Map  
TA O'Hara Property  
Contra Costa County, California**

Revision Date: 06/14/2022



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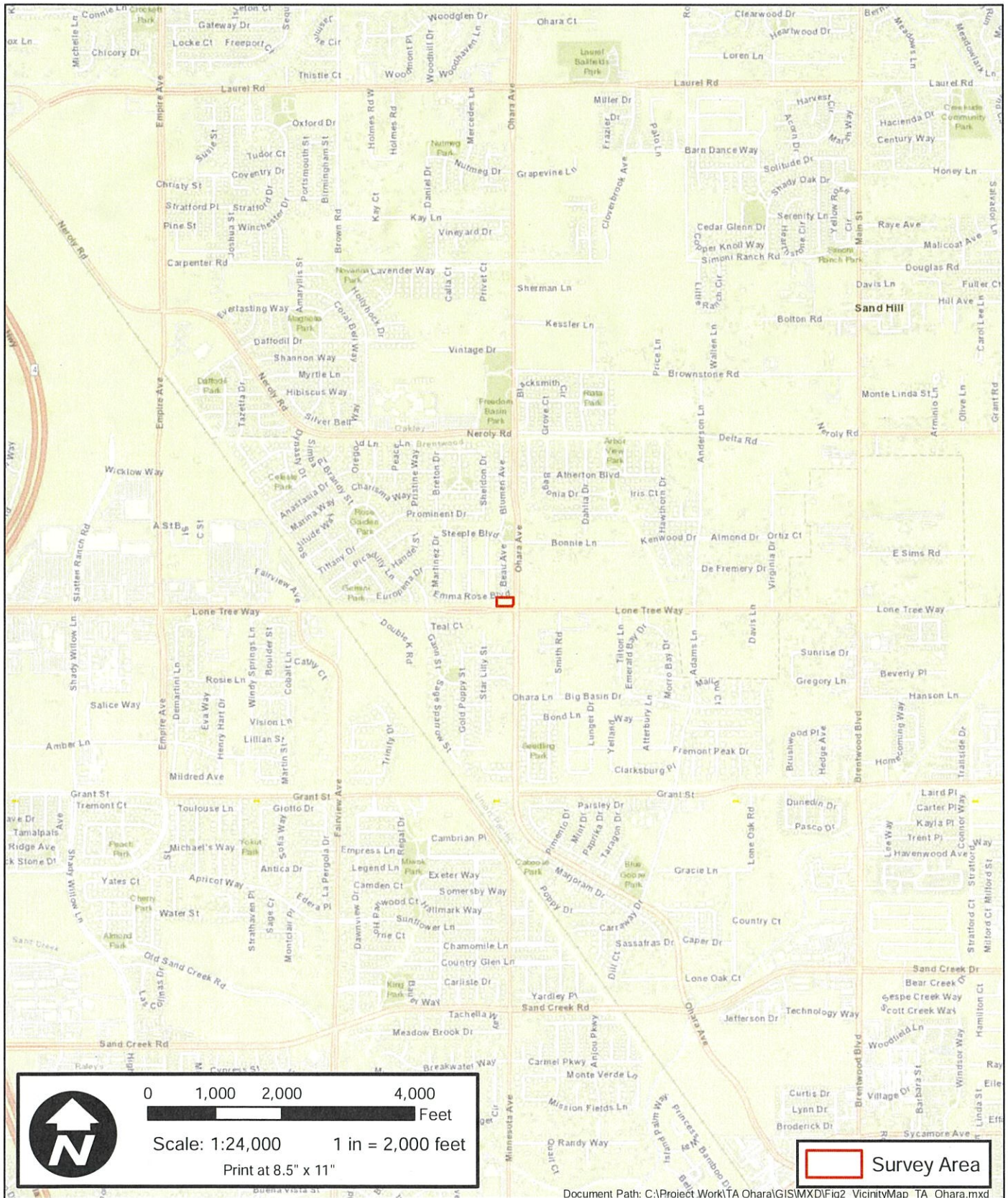


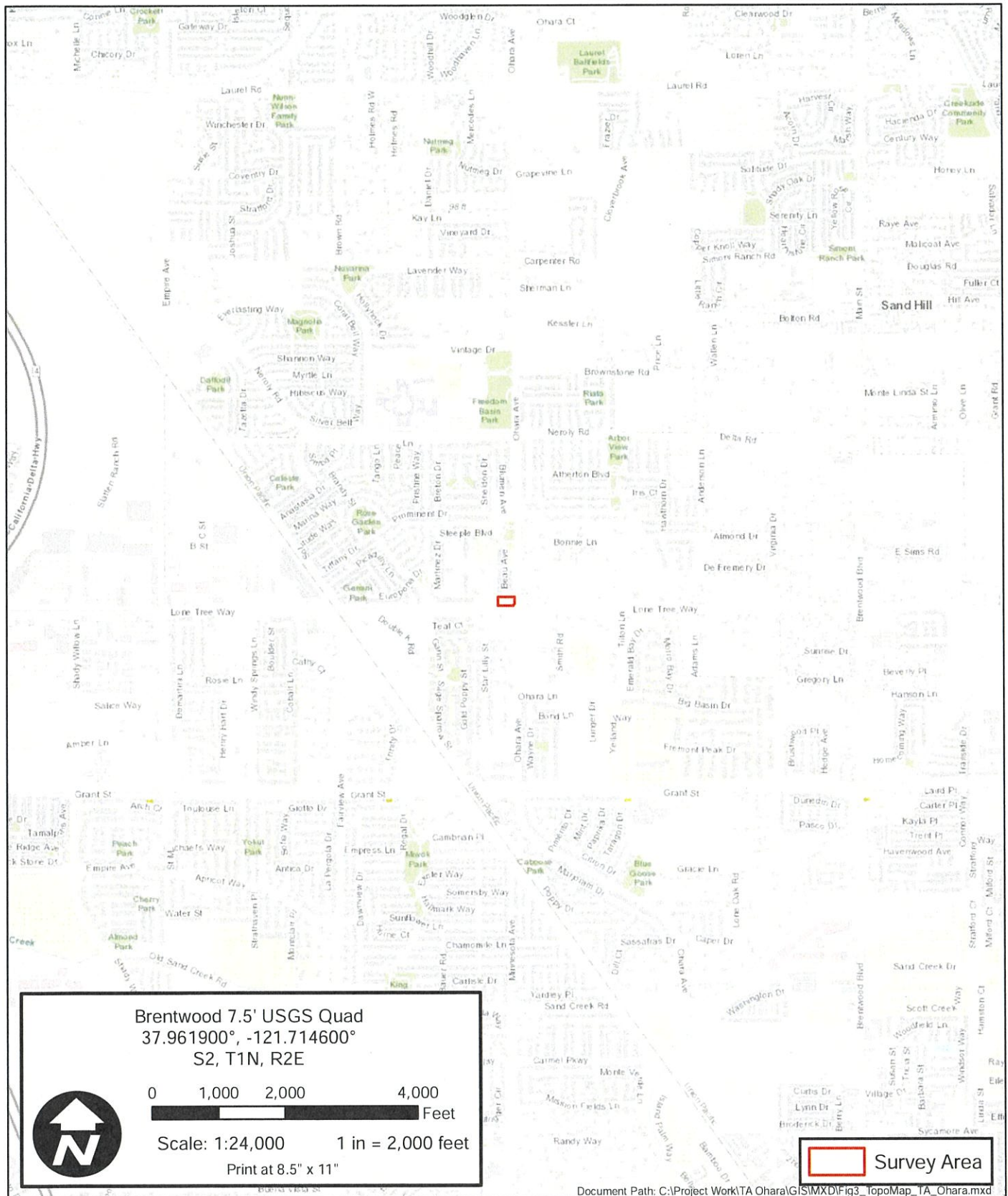
Figure 2: Vicinity Map  
TA O'Hara Property  
Contra Costa County, California

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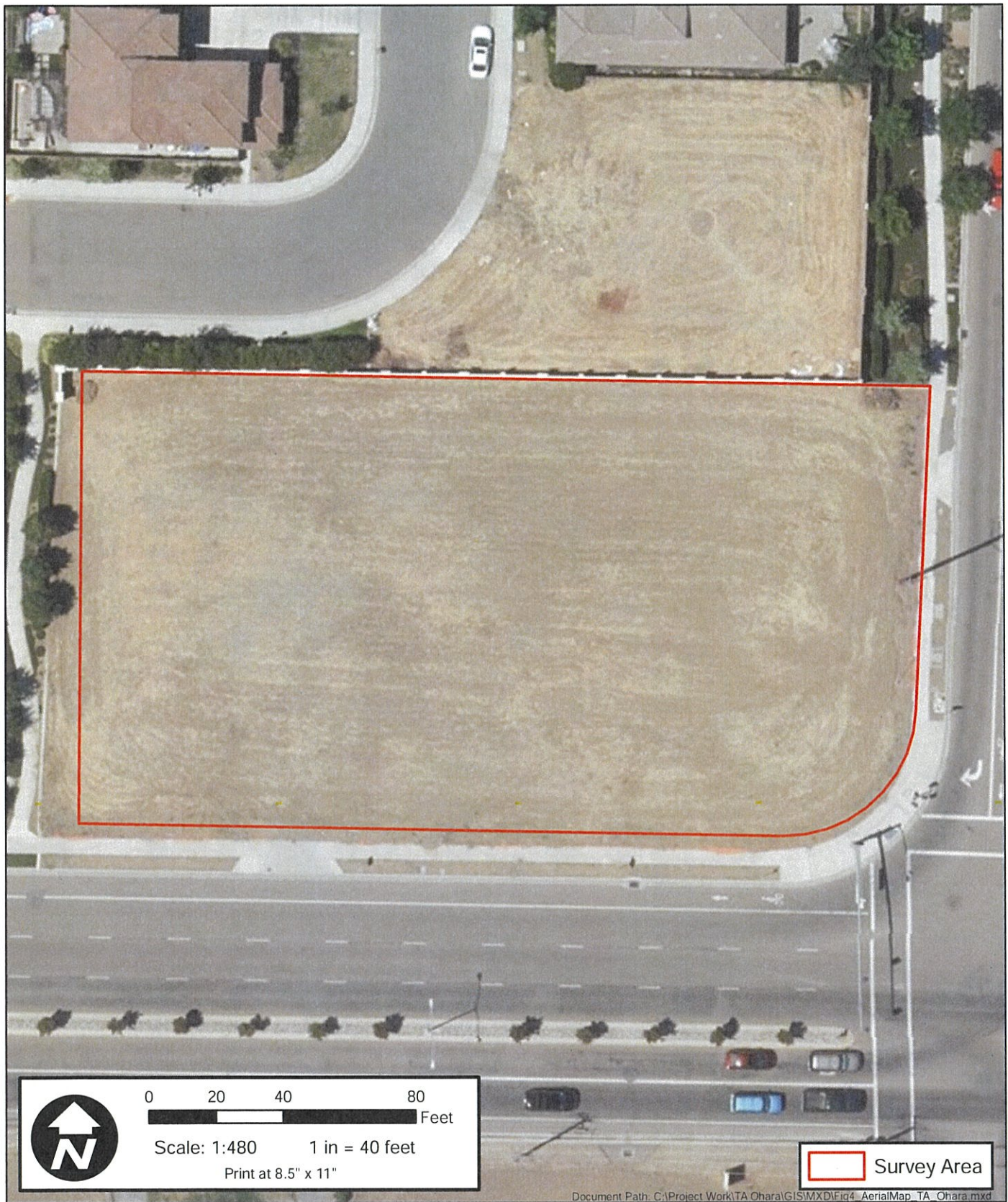


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**Figure 3: USGS Topographic Map  
 TA O'Hara Property  
 Contra Costa County, California**

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Figure 4: Aerial Map  
TA Ohara Property  
Contra Costa County, California

Revision Date: 06/05/2023



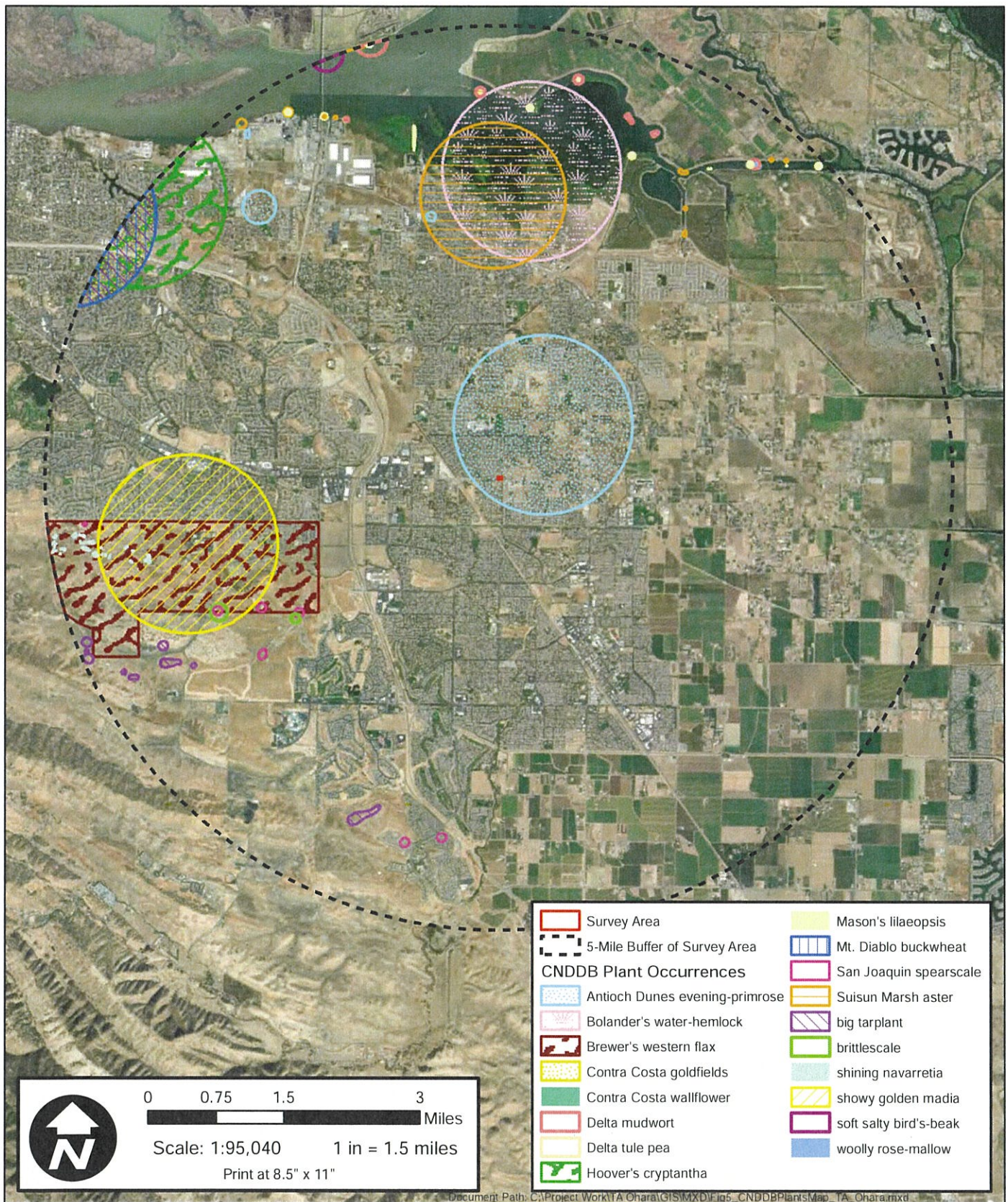


Figure 5: CNDDDB Plants Map  
 TA O'Hara Property  
 Contra Costa County, California

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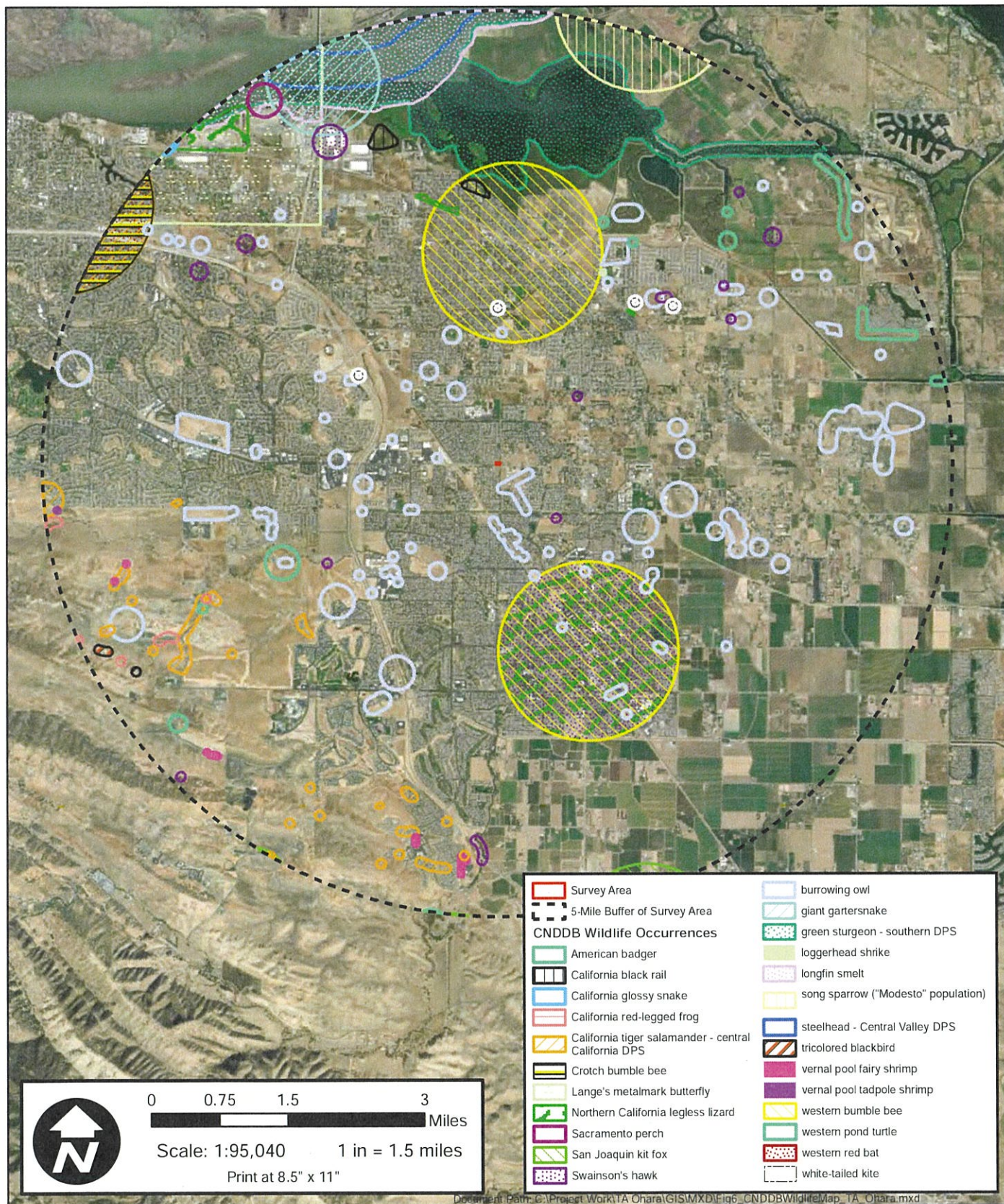


Figure 6: CNDDB Wildlife Map  
 TA O'Hara Property  
 Contra Costa County, California

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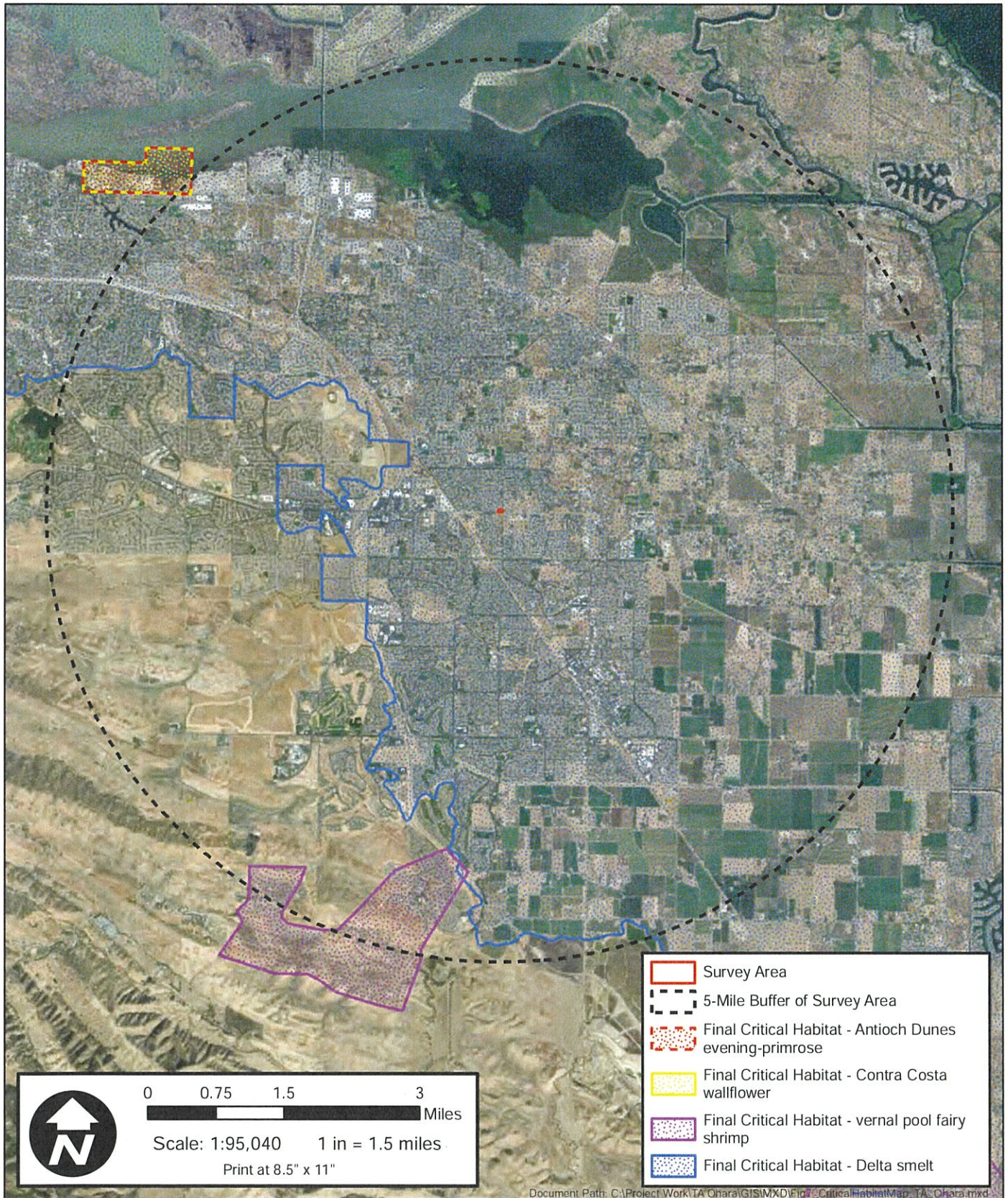


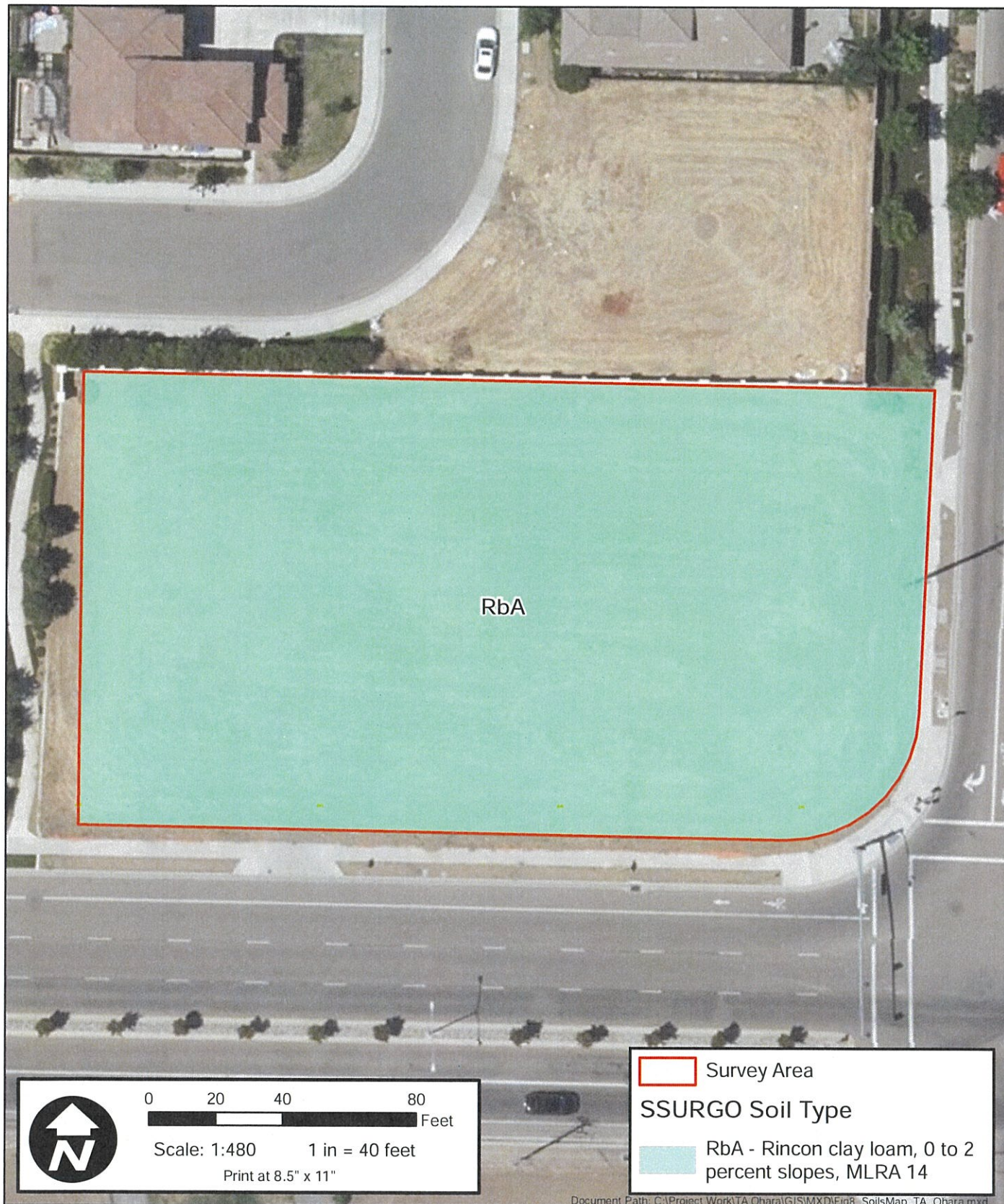
Figure 7: Critical Habitat Map  
TA O'Hara Property  
Contra Costa County, California

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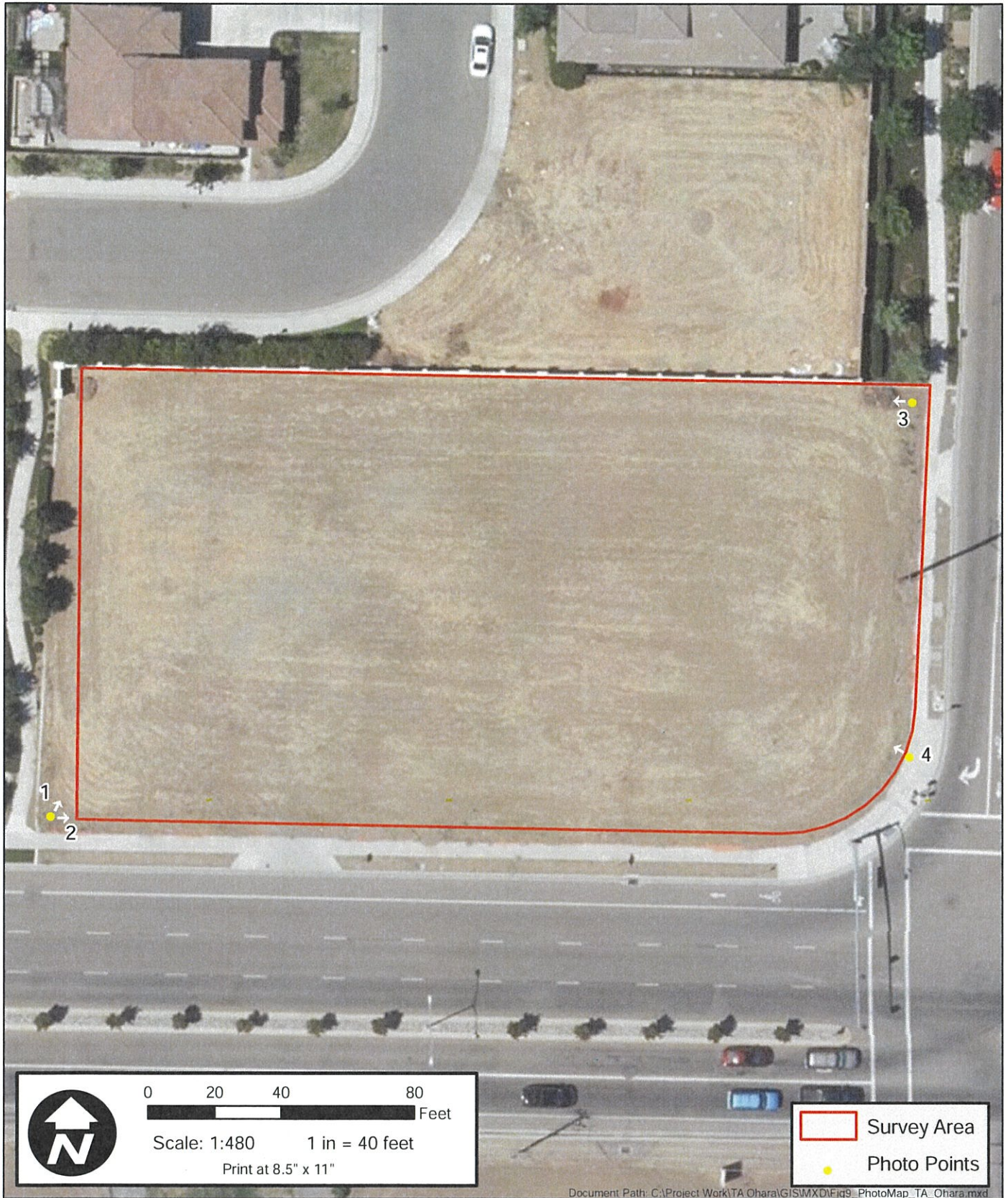


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Figure 8: Soils Map  
TA Ohara Property  
Contra Costa County, California

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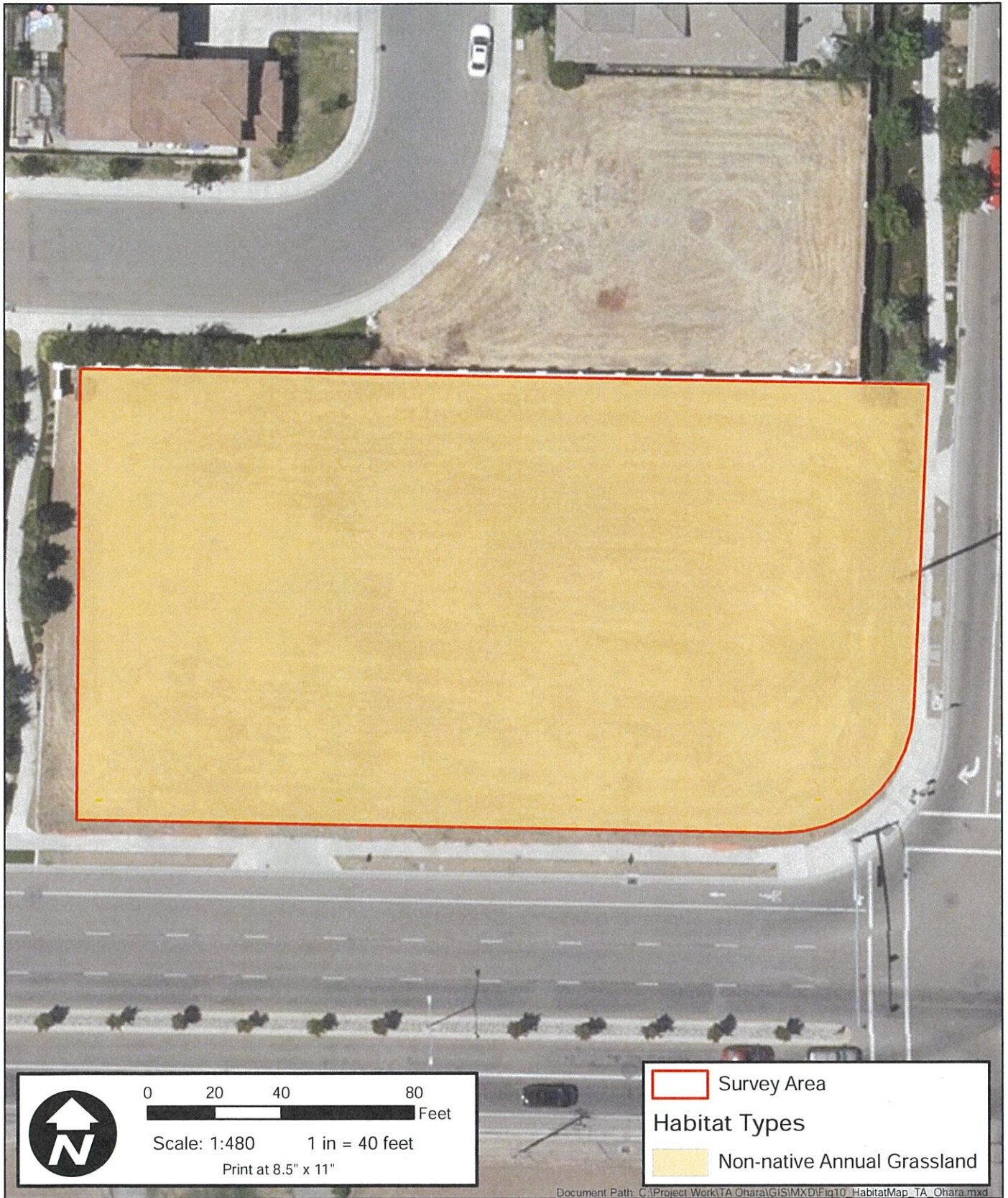


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Figure 9: Photo Map  
TA O'Hara Property  
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Figure 10: Habitat Map  
TA Ohara Property  
Contra Costa County, California

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**ATTACHMENT 2**  
**TABLES**

**Table 1**

**Plant and Wildlife Species Observed**

**Within/Adjacent to the Property**

Table 1	
Plant and Wildlife Species Observed Within/Adjacent to the Property	
Scientific Name	Common Name
Plant Species Observed	
<i>Arbutus unedo</i>	strawberry tree
<i>Avena fatua</i>	wild oat
<i>Brassica nigra</i>	black mustard
<i>Bromus diandrus</i>	rip-gut brome
<i>Celtis sinensis</i>	Chinese hackberry
<i>Convolvulus arvensis</i>	field bindweed
<i>Epilobium brachycarpum</i>	willow herb
<i>Erigeron bonariensis</i>	flax-leaved horseweed
<i>Erodium cicutarium</i>	redstem filaree
<i>Festuca perennis</i>	Italian rye grass
<i>Hordeum murinum</i>	wall barley
<i>Kali tragus</i> ssp. <i>tragus</i>	tumbleweed
<i>Malva parviflora</i>	cheesweed mallow
<i>Photinia serratifolia</i>	Taiwanese photinia
<i>Pyrus calleryana</i>	Callery pear
<i>Sonchus asper</i>	spiny sowthistle
<i>Verbesina encelioides</i>	golden crownbeard
<i>Washingtonia robusta</i>	Mexican fan palm
Wildlife Species Observed	
Birds	
<i>Aphelocoma californica</i>	western scrub jay
<i>Corvus brachyrhynchos</i>	American crow

**Table 2**

**Special-Status Species for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay 7.5 Minute Quadrangle Maps**

Table 2

Special-Status Species for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay 7.5 Minute Quadrangle Maps<sup>1</sup>

Common Name/Scientific Name	Status (Fed/State/Other) <sup>2</sup>	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
PLANTS					
large-flowered fiddleneck ( <i>Amsinckia grandiflora</i> )	E/E/1B.1	April – May	Cismontane woodland, valley and foothill grassland, annual grassland in various soils. Located from 885 – 1,805 ft. elevation.	Property outside of elevation range.	Presumed absent
Mt. Diablo manzanita ( <i>Arctostaphylos auriculata</i> )	-/-/1B.3	January – March	Found among cismontane woodland and chaparral among sandstone substrates. Located from 445 – 2,135 ft. elevation.	No suitable habitat present	Presumed absent
Contra Costa manzanita ( <i>Arctostaphylos manzanita</i> ssp. <i>laevigata</i> )	-/-/1B.2	January – February	Chaparral, rocky slopes. Located from 1,410 – 3,610 ft. elevation.	Property outside of elevation range.	Presumed absent
alkali milk-vetch ( <i>Astragalus tener</i> var. <i>tener</i> )	-/-/1B.2	March – June	Playas, valley and foothill grasslands in adobe clay soils, and vernal pools in alkaline soils. Located from 5 – 195 ft. elevation.	No suitable habitat present	Presumed absent
heartscale ( <i>Atriplex cordulata</i> var. <i>cordulata</i> )	-/-/1B.2	April – October	Annual herb found among chenopod scrub, meadows and seeps, and valley and foothill grassland with sandy soil. Sometimes found in saline or alkaline soils. Located from 0 – 1,835 ft. elevation.	No suitable habitat present	Presumed absent
brittlescale ( <i>Atriplex depressa</i> )	-/-/1B.2	May – October	Chenopod scrub, meadows and sinks, playas, valley and foothill grasslands, and alkaline vernal pools with clay substrate. Located from 5 – 1,050 ft. elevation.	No suitable habitat present	Presumed absent
lesser saltscale ( <i>Atriplex minuscule</i> )	-/-/1B.1	May – October	Chenopod scrub, meadows and seeps, playas, valley grassland and alkaline sinks. Located from 50 – 655 ft. elevation.	No suitable habitat present	Presumed absent



Table 2

Special-Status Species for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay 7.5 Minute Quadrangle Maps<sup>1</sup>

Common Name/Scientific Name	Status (Fed/State/Other) <sup>2</sup>	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
big tarplant ( <i>Blepharizonia plumosa</i> )	-/-/1B.1	July - October	Valley grassland, foothill woodland, chaparral, usually among clay soils. 100 – 1,655 ft. elevation.	No suitable habitat present	Presumed absent
watershield ( <i>Brasema schreberi</i> )	-/-/2B.3	June-September	Aquatic perennial rhizomatous herb that is found among freshwater marshes and swamps from 0 – 7,220 feet in elevation.	No suitable habitat present	Presumed absent
Mount Diablo fairy-lantern ( <i>Calochortus pulchellus</i> )	-/-/1B.2	April – June	Chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland; on wooded and brushy slopes. Located from 100 – 2,755 ft. elevation.	No suitable habitat present	Presumed absent
bristly sedge ( <i>Carex comosa</i> )	-/-/2B.1	May – September	Coastal prairie, marshes and swamps, lake margins, valley and foothill grassland. 0 – 2,050 ft. elevation.	No suitable habitat present	Presumed absent
Congdon's tarplant ( <i>Centromadia parryi</i> ssp. <i>condonii</i> )	-/-/1B.2	June – November	Valley and foothill grasslands in alkaline soils. 0 – 755 ft. elevation.	No suitable habitat present	Presumed absent
soft salty bird's beak ( <i>Chloropyron molle</i> ssp. <i>molle</i> )	E/R/1B.2	July – November	Annual hemiparasitic herb found among marshes and swamps with coastal salt. Located from 0 – 10 ft. elevation.	No suitable habitat present	Presumed absent

Table 2

**Special-Status Species for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay 7.5 Minute Quadrangle Maps<sup>1</sup>**

<b>Common Name/Scientific Name</b>	<b>Status (Fed/State/Other)<sup>2</sup></b>	<b>Blooming or Survey Period</b>	<b>Habitats of Occurrence</b>	<b>Potential on Site</b>	<b>Status on Site**</b>
Bolander's water-hemlock ( <i>Cicuta maculata</i> var. <i>bolanderi</i> )	-/-/2B.1	July – September	Found among brackish, coastal, and freshwater marshes and swamps. 0 – 655 ft. elevation.	No suitable habitat present	Presumed absent
Hoover's cryptantha ( <i>Cryptantha hooveri</i> )	-/-/1A	April – May	Annual herb found among inland dunes and sandy areas of valley and foothill grasslands from 30 – 490 feet in elevation.	No suitable habitat present	Presumed absent
recurved larkspur ( <i>Delphinium recurvatum</i> )	-/-/1B.2	March – May	Alkaline areas of chenopod scrub, cismontane woodland, and valley and foothill grasslands. Located from 10 – 2,590 ft. elevation.	No suitable habitat present	Presumed absent
dwarf downingia ( <i>Downingia pusilla</i> )	-/-/2B.2	March – May	Mesic valley and foothill grasslands, vernal pools. Located from 5 – 1,460 ft. elevation.	No suitable habitat present	Presumed absent
Antioch Dunes buckwheat ( <i>Eriogonum nudum</i> var. <i>psychicola</i> )	-/-/1B.1	July – October	Perennial herb found among inland dunes from 0 – 65 feet in elevation.	No suitable habitat present	Presumed absent
Mount Diablo buckwheat ( <i>Eriogonum truncatum</i> )	-/-/1B.1	April – November	Chaparral, coastal scrub, and valley and foothill grasslands in sandy soils. Located from 10 – 1,150 ft. elevation.	No suitable habitat present	Presumed absent
Jepson's coyote-thistle ( <i>Eryngium jepsonii</i> )	-/-/1B.2	April – August	Perennial herb found among valley and foothill grasslands and vernal pools with clay soils. Located from 10 – 985 ft. elevation.	No suitable habitat present	Presumed absent

Table 2

Special-Status Species for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay 7.5 Minute Quadrangle Maps<sup>1</sup>

Common Name/Scientific Name	Status (Fed/State/Other) <sup>2</sup>	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
Delta button celery ( <i>Eryngium racemosum</i> )	-/E/1B.1	March – October	Annual and/or perennial herb found among vernal mesic clay depressions from 10 – 100 feet in elevation.	No suitable habitat present	Presumed absent
spiney-sepaed button celery ( <i>Eryngium spinosepalum</i> )	-/1B.2	April – May	Valley and foothill grasslands and vernal pools. Located from 260 – 3,200 ft. elevation.	No suitable habitat present	Presumed absent
Contra Costa wallflower ( <i>Erysimum capitatum</i> var. <i>angustatum</i> )	-/1B.1	March – July	Dunes habitat in coastal strand. Known from 4 occurrences in Suisun Bay. Located from 10 – 65 ft. elevation	No suitable habitat present	Presumed absent
diamond-petaled California poppy ( <i>Eschscholzia rhombipetala</i> )	-/1B.1	March – April	Valley and foothill grassland, alkaline, clay slopes and flats. Located from 0 – 3,200 ft. elevation	No suitable habitat present	Presumed absent
San Joaquin spearscale ( <i>Extriplex joaquinana</i> )	-/1B.2	April – October	Annual herb found among alkaline areas of chenopod scrub, meadows and seeps, playas, and valley and foothill grasslands. Located from 5 – 2,740 ft. elevation.	No suitable habitat present	Presumed absent
fragrant fritillary ( <i>Fritillaria liliacea</i> )	-/1B.2	February – April	Perennial bulbiferous herb found among serpentinite soils of cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland. Located among 10 – 1,345 ft. elevation.	No suitable habitat present	Presumed absent
Diablo helianthella ( <i>Helianthella castanea</i> )	-/1B.2	March – June	Perennial herb found in areas of azonal soil with partial shade and rocky soils among broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland. Located from 195 – 4,265 ft. elevation.	No suitable habitat present	Presumed absent

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Special-Status Species for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay 7.5 Minute Quadrangle Maps<sup>1</sup>

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Brewer's western flax ( <i>Hesperolinon breweri</i> )	-/-/1B.2	May – July	Annual herb usually found in serpentinite soils among chaparral, cismontane woodland, and valley and foothill grasslands. Located from 100- 3,100 ft. elevation.	No suitable habitat present	Presumed absent
woolly rose-mallow ( <i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> )	-/-/1B.2	June - September	Freshwater marshes and swamps, often in riprap on the sides of levees. Located from 0 – 395 ft. elevation	No suitable habitat present	Presumed absent
Contra Costa goldfields ( <i>Lasthema conjugens</i> )	E/-/1B.1	March – June	Annual herb found in mesic areas among cismontane woodland, alkaline playas, valley and foothill grasslands, and vernal pools. Located from 0 – 1,540 ft. elevation.	No suitable habitat present	Presumed absent
Delta tule pea ( <i>Lathyrus jepsonii</i> var. <i>jepsonii</i> )	-/-/1B.2	May – July	Freshwater wetlands, wetland-riparian, freshwater marsh, brackish marsh. Located from 0 – 15 ft. elevation.	No suitable habitat present	Presumed absent
Mason's lilaeopsis ( <i>Lilaeopsis masomi</i> )	-/R/1B.1	April – November	Perennial rhizomatous herb found among both brackish and freshwater marshes and swamps, and riparian scrub. Located from 0 – 35 ft. elevation.	No suitable habitat present	Presumed absent
Delta mudwort ( <i>Limosella australis</i> )	-/-/2B.1	May – August	Marshes and swamps (freshwater or brackish), riparian scrub. Usually found on mud banks. Located from 0 – 10 ft. elevation	No suitable habitat present	Presumed absent
showy golden madia ( <i>Madia radiata</i> )	-/-/1B.1	March – May	Annual herb found among cismontane woodland and valley and foothill grassland. Located from 80 – 3,985 ft. elevation.	No suitable habitat present	Presumed absent
Hall's bush-mallow ( <i>Malacothamnus hallii</i> )	-/-/1B.2	May – September	Perennial deciduous shrub located among chaparral and coastal scrub habitat. Located from 35 – 2,495 ft. elevation.	No suitable habitat present	Presumed absent

Table 2

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shining navarretia ( <i>Navarretia nigelliformis</i> ssp. <i>radians</i> )	-/-/1B.2	April – July	Annual herb sometimes found in clay soils among cismontane woodland, valley and foothill grassland, and vernal pools. Located from 215 – 3,280 ft. elevation.	No suitable habitat present	Presumed absent
Antioch Dunes evening primrose ( <i>Oenothera deltoides</i> ssp. <i>howellii</i> )	E/E/1B.1	March – September	Inland dunes. Located from 0 – 100 ft. elevation.	No suitable habitat present	Presumed absent
bearded popcornflower ( <i>Plagiobothrys hystericulus</i> )	-/-/1B.1	April – May	Annual herb found among mesic areas of valley and foothill grasslands and the margins of vernal pools. Often found in vernal swales. Located from 0 – 900 feet in elevation.	No suitable habitat present	Presumed absent
eel-grass pondweed ( <i>Potamogeton zosteriformis</i> )	-/-/2B.2	June – July	An aquatic annual herb found among freshwater marshes and swamps. Located from 0 – 6,105 feet in elevation.	No suitable habitat present	Presumed absent
California alkali grass ( <i>Puccinellia simplex</i> )	-/-/1B.2	March – May	Annual herb found in alkaline sinks, flats, lake margins, and vernal mesic areas of chenopod scrub, meadows and seeps, valley and foothill grasslands, and vernal pools. Located from 5 – 3050 ft. elevation.	No suitable habitat present	Presumed absent
marsh skullcap ( <i>Scutellaria galericulata</i> )	-/-/2B.2	June – September	Lower montane coniferous forests, mesic areas of meadows and seeps, and freshwater marshes and swamps. Located from 0 – 6,890 ft. elevation.	No suitable habitat present	Presumed absent

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side-flowering skulicap ( <i>Scutellaria lateriflora</i> )	-/-/2B.2	June – September	Perennial rhizomatous herb found among mesic areas of meadows and seeps and among marshes and swamps. Located from 0 – 1,640 feet in elevation.	No suitable habitat present	Presumed absent
chaparral ragwort ( <i>Senecio aphanactis</i> )	-/-/2B.2	January – April	Cismontane woodland, coastal scrub, drying alkaline flats, chaparral. Located from 50 – 2,625 ft. elevation.	No suitable habitat present	Presumed absent
Keck's checkerbloom ( <i>Sidalcea keckii</i> )	FE/-/1B.1	April – June	Annual herb found among cismontane woodland and valley and foothill grasslands in clay or serpentinite soils. Located from 245 – 2,135 feet in elevation	No suitable habitat present	Presumed absent
long-styled sand spurrey ( <i>Spergularia macrotheca</i> var. <i>longistyla</i> )	-/-/1B.2	February – May	Alkaline meadows and seeps, marshes and swamps. Located from 0 – 835 ft. elevation.	No suitable habitat present	Presumed absent
Suisun Marsh aster ( <i>Symphyotrichum lentum</i> )	-/-/1B.2	March – November	Freshwater and brackish marsh. Located from 0 – 10 ft. elevation.	No suitable habitat present	Presumed absent
caper-fruited tropidocarpum ( <i>Tropidocarpum cappardeum</i> )	-/-/1B.1	March – April	Valley and foothill grasslands on alkaline hills. Located from 5 – 1,495 ft. elevation.	No suitable habitat present	Presumed absent
oval-leaved viburnum ( <i>Viburnum ellipticum</i> )	-/-/2B.3	May – June	Perennial deciduous shrub found among chaparral, cismontane woodland, and lower montane coniferous forests. Located from 705 – 4,595 ft. elevation.	Property outside of elevation range.	Presumed absent

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INVERTEBRATES					
Lange's meadowlark butterfly ( <i>Apodemia mormo langei</i> )	E/-/-	Resident	This species is found exclusively among the Antioch dunes and is closely associated with its primary nectar source, naked-stemmed buckwheat ( <i>Eriogonum nudum</i> var. <i>psychicola</i> ).	No suitable habitat present	Presumed absent
Crotch bumble bee ( <i>Bombus crotchii</i> )	-/CE/-	Resident	Found in open grassland and scrub, able to persist in semi-natural habitats surrounded by intensely modified landscapes. Nests underground and requires undisturbed nesting and winter sites. Historic range extends from central CA south to Baja, Mexico. Recent observations indicated retraction from northern and southern extremes of range.	No suitable habitat present. No nectar plants observed.	Presumed absent
western bumble bee ( <i>Bombus occidentalis</i> )	-/CE/-	Resident	Found in a range of habitats including mixed woodlands, farmlands, urban areas, montane meadows, and prairie grasslands with abundant flora resources that provide pollen and nectar throughout their flight period. Usually nests underground. Occurs in Canada and USA from southern British Columbia to central California.	No suitable habitat present. No nectar plants observed.	Presumed absent
Conservancy fairy shrimp ( <i>Branchinecta conservatio</i> )	E/-/-	November – Early April (dependent on the timing of winter and spring rains)	Rather large, moderately turbid cool-water vernal pools.	No suitable habitat present	Presumed absent

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<b>Common Name/Scientific Name</b>	<b>Status (Fed/State/Other)<sup>2</sup></b>	<b>Blooming or Survey Period</b>	<b>Habitats of Occurrence</b>	<b>Potential on Site</b>	<b>Status on Site<sup>**</sup></b>
vernal pool fairy shrimp ( <i>Branchinecta lynchi</i> )	T/-/-	Resident	Endemic to central valley vernal pools and swales.	No suitable habitat present	Presumed absent
monarch butterfly ( <i>Danaus plexippus</i> )	C/-/-	September - March	Overwintering habitat includes forested groves from Mendocino County south to Baja, Mexico. Located within 1.5 miles of the ocean or SF Bay. Most commonly use eucalyptus, Monterey Pine, and Monterey cypress trees.	No suitable habitat present	Presumed absent
Valley elderberry longhorn beetle ( <i>Desmocerus californicus dimorphus</i> )	T/-/-	Resident	Only found in association with its host plant, elderberry ( <i>Sambucus</i> spp.). Most occurrences are found below 500 feet in elevation.	No suitable habitat present	Presumed absent
vernal pool tadpole shrimp ( <i>Lepidurus packardii</i> )	E/-/-	Resident	Endemic to the northern portion of the Central Valley and Delta. Found in a variety of natural and artificial seasonally ponded habitats including vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and tire ruts. Wetlands vary from 2 m <sup>2</sup> to 356 km <sup>2</sup> .	No suitable habitat present	Presumed absent



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FISH					
green sturgeon – southern DPS ( <i>Acipenser medirostris</i> pop. 1)	-/T/-	Resident	Southern DPS ranges from the Eel River south including the Sacramento and San Joaquin Rivers. Most of its lifecycle is spend in coastal marine waters, estuaries, and lower reaches of large rivers. Ascend rivers to spawn, but specific spawning and rearing habitat is unknown.	No suitable habitat present	Presumed absent
Sacramento perch ( <i>Archoplites interruptus</i> )	-/-/SSC	Resident	Their range included the Tulare and Buena Vista basins to the south, the San Joaquin River basin, the San Francisco Estuary and its tributaries, and the Sacramento Valley. Sacramento perch are adapted for life in sloughs, slow moving rivers, and large lakes, including floodplain lakes, of the Central Valley. These habitats often become very warm and alkaline during periods of drought or in late summer.	No suitable habitat present	Presumed absent
Delta smelt ( <i>Hypomesus transpacificus</i> )	T/T/-	Resident	Endemic to upper SF Estuary and Delta. Inhabits open waters of bays, tidal rivers, channels, and sloughs, but rarely occurs in water with salinity of more than 10-12 ppt. Spawning occurs in freshwater, primarily in tidal dead-end sloughs and channel edgewaters.	No habitat present.	Presumed absent

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steelhead – Central Valley DPS ( <i>Oncorhynchus mykiss irideus</i> pop. 11)	T/-/-	Resident	Cool, clear, well-oxygenated water preferred. Prefer complex structured river systems with large boulders, etc.	No suitable habitat present	Presumed absent
longfin smelt ( <i>Spirinchus thaleichthys</i> )	C/T/-	Resident	Range extends from the Gulf of Alaska, south to the Sacramento-San Joaquin estuary. Some populations are anadromous and migrate up rivers to spawn. Habitat includes range of temp and salinity conditions in coastal waters near shore, bays, estuaries, rivers, and some landlocked lakes. Spawning occurs in fresh water, over sandy-gravel substrate, rocks, and aquatic plants	No suitable habitat present	Presumed absent
culachon ( <i>Thaleichthys pacificus</i> )	T/-/-	December – June	Anadromous smelt found from northern California to southwest Alaska. Spawn in the lower portions of coastal rivers fed by snowmelt (includes the Mad River in CA).	No suitable habitat present	Presumed absent

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AMPHIBIANS					
California tiger salamander ( <i>Ambystoma californense</i> )	T/T/-	Aquatic Surveys - Once each in March, April, and May with at least 10 days between surveys.  Upland Surveys - 20 nights of surveying under proper conditions beginning October 15 and ending March 15.	Vernal pools, swales and depressions for breeding, needs underground refugia.	No suitable habitat present	Presumed absent
foothill yellow-legged frog – central coast DPS ( <i>Rana boylei</i> pop. 4)	PT/E/-	May 1 – November 1	Range of this DPS includes Alameda, Contra Costa, San Benito, San Francisco, San Mateo, Santa Clara, and Santa Cruz counties, and Fresno, Kern, Kings, Merced, San Joaquin, and Stanislaus west of the CA Aqueduct. Inhabits partially shaded, rocky streams at low to moderate elevations among chaparral, open woodland, and forest. Breeding occurs in pools of streams.	No suitable habitat present	Presumed absent
California red-legged frog ( <i>Rana draytoni</i> )	T/-/SSC	May 1 – November 1	Lowlands and foothills in or near permanent deep water with dense, shrubby or emergent riparian habitat. Requires 11-20 weeks of permanent water for breeding and larval development. Must have access to aestivation habitat.	No suitable habitat present	Presumed absent

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REPTILES					
Northern California legless lizard ( <i>Amniella pulchra</i> )	-/-/SSC	Year-round resident	Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	No suitable habitat present	Presumed absent
California glossy snake ( <i>Arizona elegans occidentalis</i> )	-/-/SSC	Year-round resident	Inhabits arid scrub, rocky washes, grasslands, and chaparral. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing.	No suitable habitat present	Presumed absent
western pond turtle ( <i>Emys marmorata</i> )	-/-/SSC	March – October	Aquatic turtle needs permanent water in ponds, streams, irrigation ditches. Nests on sandy banks or grassy fields.	No suitable habitat present	Presumed absent
San Joaquin coachwhip ( <i>Masticophis flagellum ruddocki</i> )	-/-/SSC	Year-round resident	This snake is endemic to California, ranging from Colusa County south into Kern County. Found in open, dry areas with little to no tree cover. Valley grassland and saltbrush scrub are common habitats.	No suitable habitat present	Presumed absent

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Alameda whipsnake ( <i>Masticophis lateralis euryxanthus</i> )	T/T/-	Year-round resident	Found in the California inner Coast Range. Habitat consists of mixed chaparral, coastal scrub, annual grassland with rock piles, and oak woodland habitats. Rock piles are an important habitat feature as they provide cover and foraging potential.	No suitable habitat present. Annual grassland is only secondary habitat for the species, and no rock piles	Presumed absent
coast horned lizard ( <i>Phrynosoma blainvillii</i> )	-/-/SSC	Year-round resident	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes; requires open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	No suitable habitat present	Presumed absent
giant garter snake ( <i>Thamnophis gigas</i> )	T/T/-	Year-round resident	Inhabits agricultural wetlands and other waterways such as irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands.	No suitable habitat present	Presumed absent
BIRDS					
tricolored blackbird ( <i>Agelaius tricolor</i> )	-/-/SSC	February – August	Nesting within seasonal wetland marshes, blackberry brambles or other protected substrates. Forages in annual grassland and wetland habitats.	No suitable habitat present	Presumed absent

**Table 2**

**Special-Status Species for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay 7.5 Minute Quadrangle Maps<sup>1</sup>**

<b>Common Name/Scientific Name</b>	<b>Status (Fed/State/Other)<sup>2</sup></b>	<b>Blooming or Survey Period</b>	<b>Habitats of Occurrence</b>	<b>Potential on Site</b>	<b>Status on Site**</b>
grasshopper sparrow ( <i>Ammodramus savannarum</i> )	-/-/SSC	February – August	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes; favors native grasslands with a mix of grasses, forbs, and scattered shrubs. Nesting and feeding mostly takes place on the ground; loosely colonial when nesting.	No suitable habitat present	Presumed absent
golden eagle ( <i>Aquila chrysaetos</i> )	FP/-/-	February – August	Nests in cliff-walled canyons and tall trees in open areas. (Nesting and wintering) Rolling foothills mountain areas, sage-juniper flats, and desert.	No suitable habitat present	Presumed absent
burrowing owl ( <i>Athene cunicularia</i> )	-/-/SSC	February – August	Dry open annual or perennial grassland, desert, and scrubland. Uses abandoned mammal burrows for nesting.	No suitable habitat present. No mammal burrows observed.	Presumed absent
ferruginous hawk ( <i>Buteo regalis</i> )	-/-/WL	Late Fall – Winter	Open country such as semiarid grasslands with few trees, rocky outcrops, and open valleys. Also, along streams or in agricultural areas during migration.	No suitable habitat present	Presumed absent
Swainson's hawk ( <i>Buteo swainsoni</i> )	-/T/-	February – October	Nests in riparian areas and in oak savannah near foraging areas. Forages in alfalfa and grain fields with rodent populations.	No suitable habitat present	Presumed absent
northern harrier ( <i>Circus cyaneus</i> )	-/SSC	February – August	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Nests in grasslands and marshlands, ground nesting bird.	No suitable habitat present	Presumed absent

Table 2

**Special-Status Species for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay 7.5 Minute Quadrangle Maps<sup>1</sup>**

<b>Common Name/Scientific Name</b>	<b>Status (Fed/State/Other)<sup>2</sup></b>	<b>Blooming or Survey Period</b>	<b>Habitats of Occurrence</b>	<b>Potential on Site</b>	<b>Status on Site**</b>
white-tailed kite ( <i>Elanus leucurus</i> )	-/-/FP	February – August	Various grassland habitats, urban land, oak woodlands with grassland for foraging. Nests in trees, often near a marsh.	No suitable habitat present	Presumed absent
California horned lark ( <i>Eremophila alpestris actia</i> )	-/-/SSC	February – August	Short-grass prairie, bald hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats. Prefer open terrain where they construct nests on the ground, often in sparsely vegetated areas.	No suitable habitat present	Presumed absent
prairie falcon ( <i>Falco mexicanus</i> )	-/-/WL	February – August	Nests on cliffs in dry open terrain either in level or hilly habitats. Forages in scrub, grassland, desert or agricultural fields.	No suitable habitat present	Presumed absent
American peregrine falcon ( <i>Falco peregrinus anatum</i> )	DL/DL/FP	February - August	Nests near wetlands, lakes, rivers, or other water. On cliffs, banks, dunes, mounds, and human-made structures.	No suitable habitat present	Presumed absent
saltmarsh common yellowthroat ( <i>Geothlypis trichas smuosa</i> )	-/-/SSC	Resident	Breeding range includes the salt marshes of the SF Bay. Non-breeding range includes CA coast from the SF Bay south to San Diego. Found in salt marshes, nests just above ground or over water, in thick vegetation. Sometimes higher up in weeds or shrubs.	No suitable habitat present	Presumed absent

Table 2

**Special-Status Species for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay 7.5 Minute Quadrangle Maps<sup>1</sup>**

<b>Common Name/Scientific Name</b>	<b>Status (Fed/State/Other)<sup>2</sup></b>	<b>Blooming or Survey Period</b>	<b>Habitats of Occurrence</b>	<b>Potential on Site</b>	<b>Status on Site**</b>
California condor ( <i>Gymnogyps californianus</i> )	E/-/-	Resident	This species predominantly forages in open terrain of foothill grassland and oak savanna habitats, and at coastal sites in central CA, but have also been observed feeding in more wooded areas. Typically nest in cavities located on steep rock formations or in the burned-out hollows of old growth conifer and giant sequoia trees.	No suitable habitat present	Presumed absent
loggerhead shrike ( <i>Lanius ludovicianus</i> )	-/-/SSC	February – August	Open grassland habitats, grazed grasslands. Uses shrubs for nesting.	No suitable habitat present	Presumed absent
California black rail ( <i>Laterallus jamaicensis coturniculus</i> )	-/T/FP	Resident	Found in various habitats including marshland with unrestricted tidal influence. Areas of pickleweed, bulrushes, and matted salt grass. Breeding populations are confined to a few remaining patches of habitat in central and southern CA and western AZ. Most of the population is within the northern reaches of the SF Bay and tidal marshland of San Pablo Bay.	No suitable habitat present	Presumed absent
song sparrow "Modesto population" ( <i>Melospiza melodia</i> )	-/-/SSC	March – August	Emergent freshwater marshes, willow riparian, thickets, and riparian oak forests.	No suitable habitat present	Presumed absent
Suisun song sparrow ( <i>Melospiza melodia maxillaris</i> )	-/-/SSC	February – August	Inhabits tidal salt marshes, needs vegetation for nesting sites.	No suitable habitat present	Presumed absent



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Special-Status Species for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay 7.5 Minute Quadrangle Maps<sup>1</sup>

Common Name/Scientific Name	Status (Fed/State/Other) <sup>2</sup>	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
double-crested cormorant ( <i>Nannopterum auritum</i> )	-/-/WL	Resident	Found throughout much of North America. Lakes, ponds, rivers, lagoons, swamps, coastal bays, marine islands, and seacoasts; usually within sight of land. Nests on the ground or in trees in freshwater situations, and on coastal cliffs (usually high sloping areas with good visibility).	No suitable habitat present	Presumed absent
bank swallow ( <i>Riparia riparia</i> )	-/T/-	April – August	Large nesting range in North America and Eurasia. While the species migrates south for the winter, northern winter range includes southern California. Habitat includes open and partial open areas, near flowing water. Nests are in steep sand, dirt, or gravel banks, in burrows dug near the top of the bank.	No suitable habitat present	Presumed absent
MAMMALS					
pallid bat ( <i>Antrozous pallidus</i> )	-/-/SSC	Resident	Forages in grasslands, shrublands, deserts, forests, and woodlands. Most common in open, dry habitats. Roosts in rock crevices, caves, tree hollows, and artificial structures. Roosts must protect bats from high temperatures; very sensitive to disturbance of roosting sites.	No suitable habitat present	Presumed absent
western red bat ( <i>Lasurus blossevillei</i> )	-/-/SSC	Resident	Winter in western lowlands and coastal regions of the San Francisco Bay. Roosts in forests and woodlands. Feed in grasslands, shrublands, open woodlands and forests and croplands.	No suitable habitat present	Presumed absent

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Special-Status Species for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay 7.5 Minute Quadrangle Maps<sup>1</sup>

Common Name/Scientific Name	Status (Fed/State/Other) <sup>2</sup>	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
San Francisco dusky-footed woodrat ( <i>Neotoma fuscipes annectens</i> )	-/-/SSC	Resident	Forest habitats of moderate canopy and moderate to dense understory, may prefer chaparral and redwood habitats. Nests constructed of grass, leaves, sticks, feathers, etc. Population may be limited by availability of nest materials.	No suitable habitat present	Presumed absent
salt-marsh harvest mouse ( <i>Reithrodontomys raviventris</i> )	E/E/FP	Resident	Small, fragmented range in the SF Bay Area. Habitat consists of salt and brackish marshes, where plants provide a dense mat of cover of pickleweed and <i>Atriplex</i> . Needs access to refuge/cover during high tides.	No suitable habitat present	Presumed absent
American badger ( <i>Taxidea taxus</i> )	-/-/SSC	Resident	Shrub, forest, and herbaceous habitats with friable soils to dig burrows. Need open, uncultivated ground. Prey on fossorial mammals.	No suitable habitat present	Presumed absent
San Joaquin kit fox ( <i>Vulpes macrotis mutica</i> )	E/T/-	Resident	Annual grasslands or grassy stages with scattered shrubby vegetation. Needs loose soils for burrowing.	No suitable habitat present	Presumed absent

**Table 2**

**Special-Status Species for the Antioch North, Jersey Island, Bouldin Island, Antioch South, Brentwood, Woodward Island, Tassajara, Byron Hot Spring, and Clifton Court Forebay 7.5 Minute Quadrangle Maps<sup>1</sup>**

Common Name/Scientific Name	Status (Fed/State/Other) <sup>2</sup>	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
<p>1. Special-status plants and animals as reported by the California Natural Diversity Data Base, California Native Plant Society, and other background research June 2023.</p> <p>2. Order of Codes for Plants - Fed/State/CNPS  Order of Codes for Animals - Fed/State/CDFW  Codes:  SSC - California Species of Special Concern  E - Federally/State Listed as an Endangered Species  T - Federally/State Listed as a Threatened Species  C - Species listed as a Candidate for Federal Threatened or Endangered Status  CE - Candidate for State Endangered Status  PT - Petition for Federal listing of Threatened Status  DL - Delisted  FP - State Fully Protected  1A - CNPS Plants presumed extinct in California.  1B - California Native Plant Society considers the plant Rare, Threatened, or Endangered in California and elsewhere.  2B - CNPS Plants Rare, Threatened or Endangered in California, but more common elsewhere.</p>					

**ATTACHMENT 3**  
**SITE PHOTOGRAPHS**



1. Photo #1 is taken from the southwest corner of the Property, facing northeast. Photo shows the non-native annual grassland habitat that makes up the entirety of the Property.



2. Photo #2 is taken along the southwest corner of the Property, facing east. Photos shows that there are no roadside ditches or drainage features within or adjacent to the Property.





3. Photo #3 is taken from the northeast corner of the Property, facing west. Photo shows the non-native annual grassland habitat that makes up the entirety of the Property.



4. Photo #4 is taken from the southeast corner of the Property, facing northwest. Photo shows some golden crownbeard (*Verbesina encelioides*) flowers growing along the pavement edge.