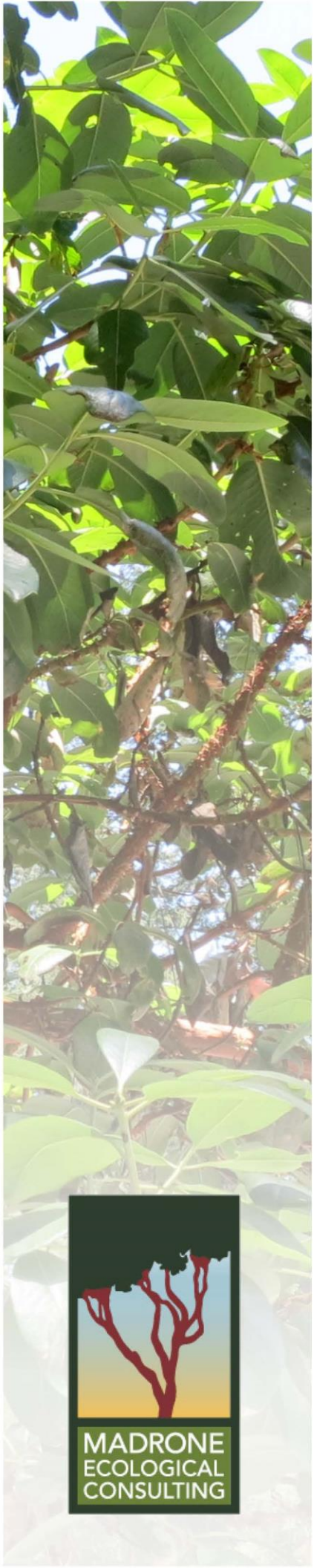
APPENDIX D



Biological Resources Assessment

Brady at Vineyard

Placer County, California
March 2019
Revised August 2019

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ECOLOGICAL
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Recommended Citation:
Madrone Ecological Consulting, LLC (Madrone). 2019. *Biological Resources Assessment, Brady at Vineyard*. Prepared for Sukhbir Brar. Published on 26 March 2019. Revised 27 August 2019.

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1.0 INTRODUCTION

This report presents the results of a Biological Resources Assessment (BRA) conducted for the Brady at Vineyard Property (Project Area). The approximately 35-acre Project Area is located northwest of the Brady Road-Vineyard Lane intersection in southwestern Placer County, California in Section 3, Township 10 North, Range 6 East, MDB&M (Longitude -121.318156, Latitude 38.747297; NAD83). The Project Area is portrayed on the USGS "*Citrus Heights, California*" 7.5-Minute Series Topographic Quadrangle (USGS 1992) (**Figure 1**).

1.1 Project Description

The Applicant is proposing to subdivide the approximately 35-acre Project Area into 116 single-family residential lots on the 30.5 acres located east of an unnamed tributary of Dry Creek. The remaining property, located at the southwest corner of the Project Area, will be created as a separate parcel for future development. The proposed lot sizes range from a minimum of 5,000 square feet (sf) to 11,538 sf with an average lot size of 6,416 sf. The proposed Project will also include private roadways and a gated entry, an open space and trails system, and on- and off-site improvements.

1.1.1 Roadways

The gated entry is proposed from Brady Lane, with an emergency vehicle access (EVA) provided off Vineyard Road, also serving as a secondary access to the proposed sewer lift station. The proposed street pattern essentially consists of two connecting loops, with a cul-de-sac at the northwest corner.

1.1.2 Open Space and Trails

A decomposed granite (DG) trail/sidewalk system will run from the northern property boundary, connecting to three different park areas with lawn and benches along the designated open space. The trail will also provide for access to Vineyard Road and looping back around to the entry gate. Fencing along the open space corridor will be post and cable fences where adjacent to the road or trails, and open iron fences where adjacent to residential lots.

In addition, the Vineyard Road frontage will include a setback/buffer of nearly 40 feet (minimum 30-foot from back of right-of-way) and will be screened with a heavily landscaped berm between the DG trail/sidewalk system and property lines. Approximately half of the homes backing onto Vineyard Road and Brady Lane will be limited to single story elevations.

1.1.3 On- and Off-Site Improvements

Grading of the site will be required, as well as import of materials for lot padding. All lots within the Project Area will be padded and the lots adjacent to the 100-year flood-plain will be padded a minimum of two

additional feet. The Applicant team anticipates that approximately 46,070 cubic yards (CY) of soil will be cut in Phase 1 and 5,300 CY of import will be needed to balance the site.

The proposed Project will also include the continuation of the Brady Lane widening all the way to the intersection of Vineyard Road. Currently, Brady Lane has been widened to include a parking lane/bicycle lane, curb, gutter, and sidewalk for approximately 210 feet of the northernmost portion of the Project's frontage. This existing improvements are approximately 22 feet wide as measured from the fog line of the existing south-bound lane to the lip of gutter. In addition, the proposed Project includes widening Vineyard Road to accommodate a new bike lane, two-way left turn lane, and asphaltic concrete dike to direct drainage to a bioretention planter.

Furthermore, underground infrastructure improvements for the proposed Project will also include new public water mains on-site and along Brady Lane and Vineyard Road frontages, as well as on-site gravity sanitary sewer and storm drain collection systems. The on-site sanitary sewer system will flow to a proposed lift-station serving the entire Northeast Dry Creek Community Plan Area. The Project will be served by public sewer (Placer County CSA 28, Zone 173) and water (Cal Am/PCWA).

The proposed lift station, located on the northern side Vineyard Road, east of the tributary and opposite Misty Lane, will pump to the regional waste water treatment plan (WWTP) east on Vineyard to Riesling, then to a 15-inch City main in Foothills Boulevard, where it gravity flows south to the WWTP.

1.1.4 Entitlements

The Applicant is requesting approval of the following entitlements for the Project:

- Community Plan/General Plan Amendment for the following:
  - Low Density Residential (LDR 1-2 du/ac) to Medium Density Residential (MDR);
- Rezone for the following: `
  - RS-AG-B-20 to RS-B-X-5,000
- Vesting and Phased Tentative Map and Minor Boundary Line Adjustment; and
- Conditional Use Permit to allow a deviation from the County's allowed on-site street standards.

The current conceptual site plan is included as **Attachment A**.

1.1.5 Drainage and Stormwater Management

The applicant has contracted with RFE Engineering, Inc (RFE) to prepare a preliminary drainage study and stormwater quality plan for the Project (RFE 2018). To mitigate for potential impacts to water quality, the applicant will comply with the recommendations of this report which presents RFE's design for the storm drainage system for the project and demonstrates that the design complies with Placer County drainage and water quality requirements. **Attachment B** is a figure provided by RFE summarizing drainage

improvements.

RFE's report is structured to present stormwater runoff peak flow calculations in accordance with the Placer County Stormwater Management Manual (PCSWMM) (Placer County 1990) and Placer County Land Development Manual (Placer County 1996) and stormwater quality measures to be implemented as Best Management Practices (BMPs) in accordance with the West Placer Storm Water Quality Design Manual (WPSWQDM) (Placer County 2016), which are the governing design documents for stormwater management for Placer County. In July of 2015, Placer County began requiring the submittal of a Stormwater Quality Plan (SWQP) with improvement plans. The SWQP, which is included as part of RFE's report, includes stormwater quality BMP calculations and is intended to aid in project compliance to the Placer County Phase II MS4 General Permit.

The increase in impervious surface area due to construction of proposed improvements will necessitate drainage infrastructure to convey stormwater runoff safely away from improved areas. The project is not required to detain runoff for flood control; however, since the increase in impervious surface area due to proposed improvements will cause post-construction runoff peak flows to be higher than existing conditions, it is important to ensure the increased peak flows will not have negative downstream impacts.

2.0 REGULATORY SETTING

This section describes federal, state and local laws and policies that are relevant to this assessment of biological resources.

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 protects species that are federally listed as endangered or threatened with extinction. FESA prohibits the unauthorized "take" of listed wildlife species. Take includes harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such activities. Harm includes significant modifications or degradations of habitats that may cause death or injury to protected species by impairing their behavioral patterns. Harassment includes disruption of normal behavior patterns that may result in injury to or mortality of protected species. Civil or criminal penalties can be levied against persons convicted of unauthorized "take." In addition, FESA prohibits malicious damage or destruction of listed plant species on federal lands or in association with federal actions, and the removal, cutting, digging up, damage, or destruction of listed plant species in violation of state law. FESA does not afford any protections to federally listed plant species that are not also included on a state endangered species list on private lands with no associated federal action.

2.1.2 Clean Water Act, Section 404

Section 404 of the Federal Clean Water Act requires that a Department of the Army permit be issued prior to the discharge of any dredged or fill material into waters of the United States, including wetlands. The U.S. Army Corps of Engineers (USACE) administers this program, with oversight from the U. S. Environmental Protection Agency. Waters of the United States include all navigable waters; interstate waters and wetlands; all intrastate waters and wetlands that could affect interstate or foreign commerce; impoundments of the above; tributaries of the above; territorial seas; and wetlands adjacent to the above.

2.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, any native migratory bird, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11.). Likewise, Section 3513 of the California Fish & Game Code prohibits the "take or possession" of any migratory non-game bird identified under the MBTA. Therefore, activities that may result in the injury or mortality of native migratory birds, including eggs and nestlings, would be prohibited under the MBTA.

2.2 State Regulations

2.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires evaluations of project effects on biological resources. Determining the significance of those effects is guided by Appendix G of the CEQA guidelines. These evaluations must consider direct effects on a biological resource within the project site itself, indirect effects on adjacent resources, and cumulative effects within a larger area or region. Effects can be locally important but not significant according to CEQA if they would not substantially affect the regional population of the biological resource. Significant adverse impacts on biological resources would include the following:

- Substantial adverse effects on any species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS) (these effects could be either direct or via habitat modification);
- Substantial adverse impacts to species designated by the California Department of Fish and Game (2009) as Species of Special Concern;
- Substantial adverse effects on riparian habitat or other sensitive habitat identified in local or regional plans, policies, or regulations or by CDFW and USFWS;
- Substantial adverse effects on federally protected wetlands defined under Section 404 of the Clean Water Act (these effects include direct removal, filling, or hydrologic interruption of marshes, vernal pools, coastal wetlands, or other wetland types);

- Substantial interference with movements of native resident or migratory fish or wildlife species population, or with use of native wildlife nursery sites;
- Conflicts with local policies or ordinances protecting biological resources (e.g. tree preservation policies); and
- Conflict with provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

2.2.2 State Endangered Species Act

With limited exceptions, the California Endangered Species Act (CESA) of 1984 protects state-designated endangered and threatened species in a way similar to FESA. For projects on private property (i.e. that for which a state agency is not a lead agency), CESA enables CDFW to authorize take of a listed species that is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code Section 2081).

2.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

2.2.4 Clean Water Act, Section 401

Section 401 of the Clean Water Act requires any Applicant for a 404 permit in support of activities that may result in any discharge into waters of the United States to obtain a water quality certification with the Regional Water Quality Control Board (RWQCB). This program is meant to protect these waters and wetlands by ensuring that waste discharged into them meets state water quality standards. Because the water quality certification program is triggered by the need for a Section 404 permit (and both programs are a part of the Clean Water Act), the definition of waters of the United States under Section 401 is the same as that used by the USACE under Section 404.

2.2.5 California Water Code, Porter-Cologne Act

The Porter Cologne Act, from Division 7 of the California Water Code, requires any person discharging waste or proposing to discharge waste that could affect the quality of waters of the state to file a report of waste discharge (RWD) with the RWQCB. The RWQCB can waive the filing of a report, but once a report is filed, the RWQCB must either waive or adopt water discharge requirements (WDRs). "Waters of the state" are defined as any surface water or groundwater, including saline waters, within the boundaries of the state.

2.2.6 California Fish and Game Code, Section 1600 – Streambed and Lake Alteration

The Department of California Fish and Wildlife (CDFW) is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the Fish and Game Code, Section 1602, requires notification to CDFW of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, state or local government agency, or public utility that proposes an activity that will:

- substantially divert or obstruct the natural flow of any river, stream or lake;
- 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.

For the purposes of Section 1602, rivers, streams and lakes must flow at least intermittently through a bed or channel. If notification is required and CDFW believes the proposed activity is likely to result in adverse harm to the natural environment, it will require that the parties enter into a Lake or Streambed Alteration Agreement (LSAA).

2.2.7 California Fish and Game Code, Section 3503.5 - Raptor Nests

Section 3503.5 of the Fish and Game Code makes it unlawful to take, possess, or destroy hawks or owls, unless permitted to do so, or to destroy the nest or eggs of any hawk or owl.

2.3 Local Regulations

2.3.1 Placer County Tree Ordinance

The Placer County (County) Tree Ordinance (Chapter 12.16 of the Placer County Code) (Tree Ordinance) regulates the removal and preservation of trees within the County. "Trees" under the Tree Ordinance includes all tall woody plants native to California (except grey pines and "brush"), with a single main stem or trunk at least six inches in diameter at breast height (DBH), or with multiple trunks with an aggregate of at least ten inches DBH. Each Tree has a "Protected Zone," which is a circle equal to the largest radius of a protected tree's dripline plus one foot. The radius is measured from the trunk at the base of the tree to the greatest extent of the tree's dripline. The Tree Ordinance requires a Tree Permit for any activity within the Protected Zone of a Tree related to a discretionary project. In addition, a Tree Permit is required for the removal of any Protected Tree, unless otherwise exempted.

2.3.2 Placer County Interim Oak Woodland Guidelines

The County enforces the above Tree Ordinance for cases of impacts to individual, isolated native trees; however, where tree crown canopy coverage is 10 percent/acre or greater and the dominant tree species

are native California oaks, the County regulates impacts to these areas as impact to oak woodland under the 2008 *Interim Guidelines for Evaluating Development Impacts on Oak Woodland* (Interim Guidelines). Under the Interim Guidelines, impacts to oak woodlands include all areas within 50 feet of the development footprint, and for every acre of oak woodland impacted, two acres of the same woodland type must be preserved off-site. In addition, any "significant trees" (generally trees >24 inches in diameter at breast height (DBH) or clumps >72 inches in circumference measured at ground level) impacted within the oak woodland must also be mitigated separately in accordance with the Tree Ordinance, above.

3.0 METHODOLOGY

3.1 Literature Review

A list of special-status species with potential to occur within the Project Area was developed by conducting a query of the following databases:

- California Natural Diversity Database (CNDDB) (CNDDB 2018) query of the Project Area and all areas within 5 miles of the Project Area (**Figures 2** and **3**);
- USFWS Information for Planning and Conservation (IPaC) (USFWS 2018) query for the Project Area (**Attachment C**);
- California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2018) query of the "*Citrus Heights, California*" USGS topo quadrangle, and the eight surrounding quadrangles (**Attachment D**); and
- Western Bat Working Group (WBWG) Species Matrix (WBWG 2017).

In addition, any special-status species that are known to occur in the region, but that were not identified in any of the above database searches were also analyzed for their potential to occur within the Project Area.

For the purposes of this Biological Resources Assessment, special-status species is defined as those species that are:

- listed as threatened or endangered, or proposed or candidates for listing by the USFWS or National Marine Fisheries Service;
- listed as threatened or endangered and candidates for listing by CDFW;
- identified as Fully Protected species or species of special concern by CDFW;
- identified as Medium or High priority species by the WBWG (WBWG 2017); and
- plant species considered to be rare, threatened, or endangered in California by the CNPS and CDFW [California Rare Plant Rank (CRPR) 1, 2, and 3]:
  - CRPR 1A: Plants presumed extinct.
  - CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere.
  - CRPR 2A: Plants extirpated in California, but common elsewhere.
  - CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere.
  - CRPR 3: Plants about which the CNPS needs more information – a review list.

3.2 Field Surveys

Madrone senior biologist Matt Hirkala conducted field surveys of the Project Area on 14 September 2017, and 2 May and 13 July 2018, to assess the suitability of habitats on-site to support special-status species. Meandering pedestrian surveys were performed on foot throughout the Project Area. Vegetation communities were classified in accordance with *The Manual of California Vegetation, Second Edition* (Sawyer, Keeler-Wolf and Evens 2009), and plant taxonomy was based on the nomenclature in the *Jepson eFlora* (Jepson Flora Project 2017). A list of all wildlife species observed during field surveys is included as **Attachment E**.

The results of the following surveys were also incorporated into this report:

- An aquatic resources delineation conducted by Madrone for the Project Area (Madrone 2017),
- Special-status plant surveys conducted by Madrone throughout the Project Area including adjacent areas on the neighboring parcel to the north (Madrone 2018a),
- Wet-season and dry-season vernal pool branchiopod surveys conducted by Madrone in all areas of suitable habitat within the Project Area including aquatic features that extend onto the adjacent parcel to the north (Madrone 2018b), and
- A Valley elderberry longhorn beetle habitat survey (Madrone 2018c).

4.0 EXISTING CONDITIONS

The Project Area is flat to gently hilly and primarily comprised of annual brome grassland, Valley oak (*Quercus lobata*) riparian woodland, and small disturbed areas located along the east and south edges. Elevations range from 122 to 152 feet above mean sea level and slopes range from 0 to 9%. An unnamed tributary to Dry Creek and its associated Valley oak riparian woodland traverses the parcel from north to south, and a drainage ditch crosses the site from east to west and conveys irrigation runoff from a residential development east of Brady Lane towards the Dry Creek tributary just north of Vineyard Road. A pair of seasonal wetlands and a seasonal wetland swale are located within the annual brome grasslands, and five riparian wetlands abut the unnamed tributary of Dry Creek on the west side of the Project Area.

Along Vineyard Road, the Project Area surrounds a rural residential property on three sides. This residence has a number of buildings, scattered Valley oak trees, and ornamental vegetation. The unnamed tributary enters this parcel from the west before exiting the area under Vineyard Road.

Lands directly to the north, south, and west are in a combination of undeveloped, rural, residential, and agricultural uses. Developed portions of the City of Roseville are located to the east, and a church is located adjacent to the northeast corner of the Project Area off of Brady Lane. The site was not mowed or disked prior to any of the above-listed surveys.

4.1 Terrestrial Vegetation Communities

4.1.1 Annual Brome Grassland

Approximately 28.5 acres of annual brome grasslands occupy the Project Area; common grass species included soft brome (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), perennial ryegrass (*Festuca perennis*), and wild oats (*Avena fatua*) (**Figure 4**). Forbs observed included yellow star-thistle (*Centaurea solstitialis*), which heavily infests much of the uplands in the southeast corner of the Project Area, prickly wild lettuce (*Lactuca serriola*), and wild radish (*Raphanus sativus*). Several isolated specimens of almond (*Prunus dulcis*) and coyote brush (*Baccharis pilularis*) are scattered throughout these areas.

4.1.2 Valley Oak Riparian Woodland

Approximately 3.4 acres of Valley oak riparian woodland parallel both sides of an unnamed tributary to Dry Creek for most of its length throughout the Project Area. Common tree species include Valley oak, live oak (*Quercus wislizeni*), Fremont's cottonwood (*Populus fremontii*), Pacific willow (*Salix lucida*), southern catalpa (*Catalpa bignonioides*), and walnut hybrids (*Juglans* sp.). Common understory shrubs include Himalayan blackberry (*Rubus armeniacus*), poison oak (*Toxicodendron diversilobum*), wild rose (*Rosa californica*), purple river hemp (*Sesbania punicea*), and narrow-leaf willow (*Salix exigua*).

4.1.3 Disturbed

Approximately 3.1 acres of heavily disturbed areas occur parallel to Vineyard Road and Brady Lane along the southern and eastern edges of Project Area, respectively. Areas adjacent to the church parking lot appear to have been historically graded within the northeastern corner of the Project Area. Most of these support minimal or ruderal vegetation including yellow star-thistle (*Centaurea solstitialis*), bindweed (*Convolvulus arvensis*), purple sand-spurrey (*Spergularia rubra*), and turkey mullein (*Croton setigerus*).

4.2 Aquatic Resources

Madrone senior biologist Matt Hirkala conducted a delineation of aquatic resources within the Project Area on 14 September 2017. The delineation was performed in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetlands Delineations* (USACE 2016a). USACE regulations (33 CFR 328) were used to determine the presence of Waters of the United States other than wetlands. The most recent *National Wetland Plant List* (Lichvar et al. 2016) was used to determine the wetland indicator status of plants observed in the Project Area. The *Jepson eFlora* (Jepson Flora Project 2017) was used for plant nomenclature, except where it conflicted with the nomenclature in the *National Wetland Plant List*, which was given priority. The delineation map was prepared in accordance with the *Updated Map and Drawing Standards for the South Pacific Division*

Regulatory Program (USACE 2016b). The field data was overlaid on an ortho-rectified aerial photograph (NAIP 2017).

After coordinating with the USACE, the Project Area was divided into Study Area 1 (approximately 28 acres on the north) and Study Area 2 (approximately 7 acres on the south) for the purposes of the verification process. Study Area 1 encompasses the majority of the Project Area and includes the majority of the site's natural water features, while Study Area 2 contains a single non-jurisdiction ditch.

On 17 November 2017, Madrone requested from the USACE a Preliminary Jurisdictional Determination (PJD) for Study Area 1, and an Approved Jurisdictional Determination (AJD) for Study Area 2.

On 14 February 2018, the USACE issued a PJD verification in an e-mail to Ms. Sarah VonderOhe and concurred with Madrone's Aquatic Resources Delineation for Study Area 1 (under Corps Action ID SPK-2017-00976). **Attachment F** includes the e-mail and the figure referenced in this verification titled "*Aquatic Resources Delineation, Brady at Vineyard, Study Area 1*" prepared by Madrone.

On 20 March 2018, the USACE issued an AJD verification letter for Study Area 2 (also under Corps Action ID SPK-2017-00976) and determined the drainage ditch was excavated wholly in and drains only uplands, and does not carry a relatively permanent flow of water. This feature is not a water of the United States and is currently not regulated by the USACE; however, the drainage ditch may still fall within the authority of Section 1602 of the Fish and Game Code. **Attachment G** includes the verification letter and its referenced figure titled "*Aquatic Resources Delineation, Brady at Vineyard, Study Area 2*" prepared by Madrone.

A total of 1.064 acres of aquatic resources were mapped and verified within the Project Area (**Figure 5** and **Table 1**) (Madrone 2017). A description of each aquatic resource type is included below.

Table 1. Aquatic Resources Mapped within the Project Area

Resource Type	Acreage
Project Area	
Riparian Wetland	0.40
Seasonal Wetland	0.21
Seasonal Wetland Swale	0.07
Intermittent Stream	0.30
Drainage Ditch	0.084*
Total	**1.064**

*Not jurisdictional under Section 404 CWA.

4.2.1 Seasonal Wetlands

Two seasonal wetlands were delineated within the Project Area. Seasonal wetlands inundate and/or saturate during the wet-season and/or irrigation-season, and typically dry by late spring and remain dry through the summer months unless irrigation water is present. The feature labeled as "SW1" on **Figure 5** is located on the northern edge of Project Area and extends onto the property to the north. The portion of "SW1" within

the Project Area, which is slightly higher in elevation, possesses a thick thatch layer, and saturated rather than ponded during the wet-season. The portions of this feature north of the Project Area boundary supported persistent ponding throughout the wet-season. This entire feature, including those areas located on the neighboring parcel to the north, was surveyed during protocol wet and dry-season vernal pool branchiopod surveys and special-status plant surveys.

A second seasonal wetland labeled as "SW2" is located along Vineyard Road and receives irrigation run-off from the non-jurisdictional drainage ditch. This feature fills after storm events in the wet-season and ponds sporadically during the dry-season depending on the irrigation habits of and runoff from the upslope residential developments.

Plant species commonly occurring in these features include perennial ryegrass (*Festuca perennis*), common spikerush (*Eleocharis palustris*), toad rush (*Juncus bufonius*), rabbit's-foot grass (*Polypogon monspeliensis*), Mediterranean barley (*Hordeum marinum*), annual hair grass (*Deschampsia danthonioides*), and curly dock (*Rumex crispus*). Indicators of wetland hydrology observed included the presence of oxidized rhizospheres along live roots and biotic crust in the form of algal matting.

4.2.2 Seasonal Wetland Swale

One seasonal wetland swale was delineated within the Project Area. Although it appears as though it should connect to the intermittent drainage, it terminates short of the channel due to topography. During storm events it certainly discharges to the creek; however, flows do not have the duration or the intensity to expand the lower reach of the seasonal wetland swale all the way to the intermittent drainage. Seasonal wetland swales are sloping, linear seasonal wetlands that convey surface runoff while maintaining saturated soil conditions, though ponding often occurs in the deeper reaches. Plant species commonly occurring in the seasonal wetland swale included Mediterranean barley (*Hordeum marinum*), perennial ryegrass (*Festuca perennis*), toad rush (*Juncus bufonius*), rabbit's foot grass (*Polypogon monspeliensis*), and curly dock (*Rumex crispus*). A thick thatch layer was present due to the lack of grazing.

The most common indicator of wetland hydrology was the presence of oxidized rhizospheres along live roots. The seasonal wetland swale is situated on an approximately 5% slope and did not support sustained ponding during protocol wet-season vernal pool branchiopod surveys.

4.2.3 Riparian Wetlands

Five riparian wetlands were delineated within Project Area. These features represent depressions or low terraces that receive water from the immediately adjacent unnamed intermittent tributary of Dry Creek during and after storm events. Plant species commonly occurring in these features included Mediterranean barley (*Hordeum marinum*), perennial ryegrass (*Festuca perennis*), Himalayan blackberry (*Rubus armeniacus*), rabbit's foot grass (*Polypogon monspeliensis*), and curly dock (*Rumex crispus*). Riparian wetlands deeper within the riparian corridor also supported cottonwood (*Populus fremontii*), black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and narrow-leaf willow (*Salix exigua*).

The most common indicators of wetland hydrology were the presence of oxidized rhizospheres along live roots and biotic crust in the form of algal matting.

4.2.4 Intermittent Stream

One intermittent stream was delineated within Project Area. The bed of this unnamed tributary of Dry Creek was almost completely unvegetated due to the scouring effects of seasonal flows. Adjacent vegetation was that typical of the surrounding Valley oak riparian woodland. The boundaries were delineated at the Ordinary High Water Mark (OHWM), which was identified based primarily on the extent of scour and the destruction of terrestrial vegetation.

4.2.5 Non-Jurisdictional Drainage Ditch

One non-jurisdictional drainage ditch in the southern portion of Project Area conveys irrigation run-off from the residential developments east of Brady Lane to the seasonal wetland labeled as "SW2" on **Figure 5**. This feature was apparently constructed concurrent with the adjacent development to the east. It was constructed in uplands (Historic Aerials 2017) and drains uplands.

The ditch runs relatively parallel to the slope contours of the small ridgeline located to the north and possesses an OHWM, which was used to determine its extent. Based on a review of historic aerial photography, periodic vegetation removal is performed along the banks. At the time of the field survey several inches of water were present in the east portions and noted vegetation in these areas including cattails (*Typha* spp.), smartweed (*Persicaria* sp.). Fewer plants were present in the lower reaches and mostly consisted of scattered perennial ryegrass (*Festuca perennis*) or tall flat-sedge (*Cyperus eragrostis*).

4.3 Soils

The Natural Resources Conservation Service has mapped the three soil units listed below within the Project Area (**Figure 6**). Though none of the major components of these three units are classified as hydric, all contain at least one hydric inclusion (Soil Survey Staff 2017):

- Cometa-Fiddyment complex, 1 to 5% slopes (141) – the Alamo inclusion is classified as hydric;
- Cometa-Ramona sandy loams, 1 to 5% slopes (142) – the Alamo and Xerofluvent inclusions are classified as hydric; and
- Ramona sandy loam, 2 to 9% slopes (175) – an unnamed soil inclusion within this map unit is classified as hydric.

5.0 RESULTS

Table 2 provides a list of special-status species that were evaluated, including their listing status, habitat associations, and their potential to occur in the Project Area. The following set of criteria was used to determine each species' potential for occurrence on the site:

Table 2. Special-Status Species with Potential to Occur within the Brady at Vineyard Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Plants				
Balsamorhiza macrolepis Big-scale balsamroot	--	CRPR 1B.2	Prefers chaparral, cismontane woodland, and valley and foothill grasslands. Often associated with serpentine soils.	**Absent.** Marginally suitable habitat is present in the annual brome grassland. Protocol-level surveys did not detect this species.
Chloropyron molle ssp. *hispidum* Hispid bird's-beak	--	CRPR 1B.1	Prefers seasonally flooded , saline-alkali soils at elevations below 500 feet.	**No Habitat Present.** No saline-alkali soils are present within the Study Area.
Downingia pusilla Dwarf downingia	--	CRPR 2B.2	Vernal pools and other depressional wetlands	**Absent.** The seasonal wetlands and seasonal wetland swale within the Study Area represent suitable habitat for this species. Protocol-level surveys did not detect this species.
Gratiola heterosepala Bogg's Lake hedge-hyssop	--	CE, CRPR 1B.2	Vernal pools and margins of lakes/ponds	**Absent.** The seasonal wetlands and seasonal wetland swale within the Study Area represent suitable habitat for this species. Protocol-level surveys did not detect this species.
Juncus leiospermus var. *ahartii* Ahart's dwarf rush	--	CRPR 1B.2	Edges of vernal pools and other seasonally ponded features.	**Absent.** The seasonal wetlands and seasonal wetland swale within the Study Area represent suitable habitat for this species. Protocol-level surveys did not detect this species.
Juncus leiospermus var. *leiospermus* Red Bluff dwarf rush	--	CRPR 1B.1	Occurs in vernal mesic areas in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools between 100' and 4,100' elevation.	**No Habitat Present.** The only documented occurrence in Placer County is, according to the notes on this occurrence, considered to be erroneous (CNDDB 2017).
Legenere limosa Legenere	--	CRPR 1B.1	Vernal pools	**Absent.** The seasonal wetlands and seasonal wetland swale within the Study Area represent suitable habitat for this species. Protocol-level surveys did not detect this species.
Navarretia myersii ssp. *myersii* Pincushion navarretia	--	CRPR 1B.1	Vernal pools	**Absent.** The seasonal wetlands and seasonal wetland swale within the Study Area represent suitable habitat for this species. Protocol-level surveys did not detect this species.

Scientific Name **(Common Name)**	**Federal Status**	**State Status**	**Habitat Requirements**	**Potential for Occurrence**
Orcuttia tenuis Slender Orcutt grass	FT	CE, CRPR 1B.1	Vernal pools and other seasonally ponded features.	**Absent.** The seasonal wetlands and seasonal wetland swale within the Study Area represent suitable habitat for this species. Protocol-level surveys did not detect this species.
Orcuttia viscida Sacramento Orcutt grass	FE	CE, CRPR 1B.1	Vernal pools	**Absent.** The seasonal wetlands and seasonal wetland swale within the Study Area represent suitable habitat for this species. Protocol-level surveys did not detect this species.
Sagittaria sanfordii Sanford's arrowhead	--	CRPR 1B.2	Emergent marsh habitat, typically associated with drainages, canals, or irrigation ditches.	**Absent.** The intermittent channel and ditch within the Study Area provides the necessary to support Sanford's arrowhead; however, protocol-level surveys did not detect this species.
Invertebrates				
Branchinecta conservatio Conservancy fairy shrimp	FE	--	Very large, turbid vernal pools.	**Absent.** The seasonal wetlands and seasonal wetland swale within the Study Area represent suitable habitat for this species; however, protocol-level wet-season and dry-season surveys did not detect this species.
Branchinecta lynchi Vernal pool fairy shrimp	FT	--	Vernal pools.	**Absent.** The seasonal wetlands and seasonal wetland swale within the Study Area represent suitable habitat for this species; however, protocol-level wet-season and dry-season surveys did not detect this species.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT	--	Dependent upon elderberry *(Sambucus* species) shrubs as primary host species.	**Absent.** No elderberry shrubs are present in the Study Area (Madrone 2018c).
Lepidurus packardi Vernal pool tadpole shrimp	FE	--	Vernal pools.	**Absent.** The seasonal wetlands and seasonal wetland swale within the Study Area represent suitable habitat for this species; however, protocol-level wet-season and dry-season surveys did not detect this species.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Fish				
Hypomesus transpacificus Delta smelt	FT	CE	Adults are found in the brackish open surface waters of the Delta and Suisun Bay. Though spawning has never been observed, it is believed to occur in tidally influenced sloughs and drainages on the freshwater side of the mixing zone.	**No Habitat Present.** No tidally influenced sloughs or drainages are present within the Study Area.
Oncorhynchus mykiss irideus Central Valley steelhead	FE	--	Anadromous species requiring freshwater water courses with gravelly substrates for breeding. The young remain in freshwater areas before migrating to estuarine and marine environments.	**No Habitat Present.** The unnamed tributary within the Study Area lacks gravel spawning substrate and flows too briefly to support this species. Also, this tributary appears to have been dammed on the property south of Vineyard Road, thereby presenting a barrier to migration.
Amphibians				
Ambystoma californiense California tiger salamander	FT	CT, CSC	Breeds in ponds or other deeply ponded wetlands, and uses gopher holes and ground squirrel burrows in adjacent grasslands for upland refugia/foraging.	**No Habitat Present.** Outside of the known range of the species.
Rana draytonii California red-legged frog	FT	CSC	Breeds in permanent to semi-permanent aquatic habitats including lakes, ponds, marshes, creeks, and other drainages.	**No Habitat Present.** Outside of the known range of the species.
Spea hammondii Western spadefoot toad	--	CSC	Breeds in vernal pools, seasonal wetlands and associated swales. Forages and hibernates in adjacent grasslands.	**Absent.** The seasonal wetlands within the Study Area represent suitable habitat for western spadefoot toad; however, this species was not detected during protocol-level vernal pool branchiopod wet-season surveys.
Reptiles				
Actinemys marmorata Western pond turtle	--	CSC	Ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat.	**No Habitat Present.** The aquatic resources within the resources are too ephemeral in nature to support this species.
Thamnophis gigas Giant garter snake	FT	CT	Rivers, canals, irrigation ditches, rice fields, and other aquatic habitats with slow moving water and heavy emergent vegetation.	**No Habitat Present.** Outside of the known range of the species.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Birds				
Agelaius tricolor Tricolored blackbird	--	CE, CSC	Colonial nester in cattails, bulrush, or blackberries associated with marsh habitats.	**Low.** Blackberry brambles scattered throughout the oak woodland represent marginally suitable nesting habitat for this species.
Aquila chrysaetos Golden eagle	--	CFP	Forages in open areas including grasslands, savannahs, deserts, and early successional stages of shrub and forest communities. Nests in large trees and cliffs.	**No Habitat Present.** The annual brome grasslands within the Study Area are not sufficiently expansive to support this species.
Athene cunicularia Burrowing owl	--	CSC	Nests in abandoned ground squirrel burrows, culverts, and debris piles associated with open grassland habitats.	**Moderate.** Although few ground squirrel burrows were observed, debris scattered throughout the Study Area could provide surrogate burrows. The annual brome grasslands provide marginally suitable foraging habitat due to high density of yellow star-thistle.
Buteo swainsoni Swainson's hawk	--	CT	Nests in large trees, preferably in riparian areas. Forages in fields, cropland, irrigated pasture, and grassland near large riparian corridors.	**High.** The annual brome grasslands throughout the Study Area represent suitable foraging habitat for Swainson's hawk, and the trees within the Study Area provide suitable nesting habitat.
Circus cyaneus Northern harrier	--	CSC	Nests in emergent wetland/marsh, open grasslands, or savannah habitats. Forages in open areas such as marshes, agricultural fields, and grasslands.	**High.** The annual brome grassland is suitable nesting and foraging habitat for this species.
Elanus leucurus White-tailed kite	--	CFP	Open grasslands, fields, and meadows are used for foraging. Isolated trees in close proximity to foraging habitat are used for perching and nesting.	**Present.** The annual brome grasslands throughout the Study Area represent suitable foraging habitat for white-tailed kite, and the trees throughout the Study Area provide suitable nesting habitat. This species was observed foraging on-site during a field survey.
Geothlypis trichas sinuosa San Francisco Common yellowthroat	--	CSC	Strongly associated with San Francisco Bay including the Napa Sloughs south to San Jose. Favors woody swamp, brackish and freshwater marsh.	**No Habitat Present.** Outside of the known range of the species.

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Haliaeetus leucocephalus Bald eagle	Delisted	CE/CFP	In California, breeding habitats are mainly in montane and foothill forests and woodlands near reservoirs, lakes, and rivers.	**Low.** The annual brome grasslands represent marginally suitable foraging habitat for this species.
Lanius ludovicianus Loggerhead shrike	--	CSC	Occurs in open areas with sparse trees, shrubs, and other perches.	**High.** The annual brome grasslands throughout the Study Area represent suitable foraging habitat for loggerhead shrike, and the trees and shrubs within the Study Area provide suitable nesting habitat.
Melospiza melodia mailliardi Song sparrow "Modesto" population	--	CSC	Nest in emergent freshwater marshes dominated by tules and cattails as well as riparian willow thickets. This species also nests in riparian forests of valley oak with a blackberry understory, along vegetated irrigation canals and levees, and in recently planted valley oak restoration sites (Shuford and Gardali 2008).	**No Habitat Present.** Although the riparian woodland would otherwise represent suitable nesting habitat for this species, it has not been documented nesting in Placer County, and only nests in extensive marshes in the Sacramento Valley area (Humple and Guepel 2004), which are not present.
Pipilo maculatus clementae San Clemente spotted towhee	--	CSC	Occurs in open areas with sparse trees, shrubs, and other perches.	**No Habitat Present.** Outside of the known range of the species.
Progne subis Purple martin	--	CSC	Endemic to the Channel Islands. Habitat requirements are poorly documented, but likely requires dense chaparral and woodlands with well-developed leaf litter and humus sheltered by overhead foliage.	**No Habitat Present.** No tall bridges or overpasses are present within the Study Area.
Setophaga petechia Yellow warbler	--	CSC	Occupy riparian vegetation in close proximity to water along streams and in wet meadows. This species no longer breeds in the Central Valley, but occurs as a common migrant in the fall and winter months (Shuford and Gardali 2008).	**High.** Although the Study Area is outside of this species' breeding range, it has been documented along Dry Creek just downstream of the Study Area (eBird 2017), and suitable winter foraging habitat is present in the Valley oak riparian woodland within the Study Area.
Mammals				
Antrozous pallidus Pallid bat	--	CSC, WBWG H	Roosts in crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating bark, deciduous trees in riparian areas, and fruit trees in orchards), bridges, barns, porches, bat boxes, and human-occupied as well as vacant buildings (WBWG 2017).	**High.** Suitable roosting habitat for this species is present in tree hollows and under exfoliating bark on trees scattered throughout the site.

Scientific Name **(Common Name)**	**Federal Status**	**State Status**	**Habitat Requirements**	**Potential for Occurrence**
Corynorhinus townsendii townsendii Townsend's big-eared bat	--	CC, WBWG H	Roosts in caves and cave analogues, such as abandoned mines, buildings, bridges, rock crevices and large basal hollows of coast redwoods and giant sequoias. Extremely sensitive to human disturbance. (WBWG 2017).	**No Habitat Present.** No caves or cave analogues present on-site.
Lasionycteris noctivagans Silver-haired bat	--	WBWG M	Roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. It forages in open wooded areas near water features.	**High.** Suitable roosting habitat for this species is present in tree hollows and under exfoliating bark on trees scattered throughout the site.
Lasiurus blossevillii Western red bat	--	CSC, WBWG H	Roosts primarily in the foliage of trees or shrubs (WBWG 2017). Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores) (WBWG 2017).	**High.** Trees scattered throughout the site are suitable roosting habitat for this species.
Lasiurus cinereus Hoary bat	--	WBWG M	Roosts primarily in foliage of both coniferous and deciduous trees at the edges of clearings (WBWG 2017).	**High.** Trees scattered throughout the site are suitable roosting habitat for this species.

Status Codes:

CC - CDFW Candidate for Listing
CE - CDFW Endangered
CFP - CDFW Fully Protected
CRPR - California Rare Plant Rank
CSC - CDFW Species of Concern
CT - CDFW Threatened
FE - Federally Endangered
FT - Federally Threatened
WBWG M - Western Bat Working Group Medium Threat Rank
WBWG H - Western Bat Working Group High Threat Rank

- Present: Species occurs on the site based on CNDDB records, and/or was observed on the site during field surveys.
- High: The site is within the known range of the species and suitable habitat exists.
- Moderate: The site is within the known range of the species and very limited suitable habitat exists.
- Low: The site is within the known range of the species and there is marginally suitable habitat.
- Absent/No Habitat Present: The site does not contain suitable habitat for the species, the species was not observed during protocol-level floristic surveys conducted on-site, the species was not observed during protocol-level wet-season and dry-season large listed vernal pool branchiopod surveys conducted on-site, or the site is outside the known range of the species.

Figures 2 and **3** are exhibits displaying CNDDB occurrences of plants and wildlife/critical habitats, respectively, within five miles of the Project Area. Below is a discussion of all special-status plant and animal species with potential to occur on the site.

5.1 Amphibians

5.1.1 Western Spadefoot

The western spadefoot (*Spea hammondii*) is not federally or state listed, but is a CDFW species of special concern. This amphibian is a nocturnal animal that forages in grassland, chaparral, and pine-oak woodlands for a variety of invertebrates such as insects and worms (USFWS 2005). Western Spadefoot breeds from January through May in variety of temporary wetlands including creeks, pools in intermittent drainages, vernal pools, and seasonal wetlands, and other fish-free water features. The tadpoles develop in 3 to 11 weeks, and must complete their metamorphosis before the temporary pools dry. Post-metamorphic juveniles feed and then immediately seek underground refugia. Following metamorphosis, the adults are largely terrestrial in nature and will burrow into sandy or gravelly soils utilizing the "spades" on the hind feet. The majority of the adult's life is spent underground in burrows (USFWS 2005). In Placer County, western spadefoot are known to breed in relatively deep man-made features, such as ponded areas adjacent to railroad tracks, and in intermittent drainage plunge pools or similar pools that hold water through late spring (CNDDB 2018).

The seasonal wetlands within the Project Area represent suitable breeding habitat for western spadefoot and the surrounding annual brome grasslands provide suitable dry-season habitat; however, no adults or tadpoles were observed during protocol wet-season branchiopod surveys, which consisted of twelve site visits that sampled all appropriate aquatic habitat and were conducted between 14 November 2017 and 18 March 2018. The nearest documented occurrence of western spadefoot is CNDDB Occurrence #171, which is dated 12 April 1991 and is located approximately 1.4 miles northwest of the site in the Woodcreek Oaks Open Space Preserve, near the intersection of Woodcreek Oaks Blvd and Junction Blvd (CNDDB 2018).

5.2 Birds

5.2.1 Tricolored Blackbird

Tricolored blackbirds (*Agelaius tricolor*) are not federally listed, but are state listed as threatened. They are colonial nesters preferring to nest in dense stands of cattails, bulrush, or blackberry thickets, often associated with aquatic features (Shuford and Gardali 2008).

Blackberry brambles in the vicinity of the intermittent stream represent marginally suitable nesting habitat for tricolored blackbird. Tricolored blackbird has not been documented in the CNDDB within 5 miles of the Project Area (CNDDB 2018).

5.2.2 Burrowing Owl

Burrowing owl (*Athene cunicularia*) is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a species of special concern by the CDFW. They typically inhabit dry open rolling hills, grasslands, desert floors, and open bare ground with gullies and arroyos. This species typically uses burrows created by fossorial mammals, most notably the California ground squirrel, but may also use man-made structures such as culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement. The breeding season extends from February 1 through August 31 (CBOC 1993, CDFG 2012).

Although only a few ground squirrel burrows were observed, debris scattered throughout the Project Area could provide artificial burrows for burrowing owl, and the annual brome grasslands provide suitable foraging habitat for this species. The nearest known occurrence of burrowing owl, CNDDB Occurrence #952, is dated 5 May 2003 and is approximately 3.5 miles northwest of the Project Area in a pasture north of Philip Road (CNDDB 2018). This is the only occurrence of burrowing owl within five miles of the Project Area.

5.2.3 Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is a raptor species that is not federally listed, but is listed as threatened under CESA. Breeding pairs typically nest in tall trees associated with riparian corridors, and forage in grassland, irrigated pasture, and cropland with a high density of rodents. The Central Valley populations breed and nest in the late spring through early summer before migrating to Central and South America for the winter (Shuford and Gardali 2008).

The annual brome grasslands throughout the Project Area represent suitable foraging habitat for Swainson's hawk, and the trees within the Project Area provide suitable nesting habitat. The nearest documented Swainson’s hawk nest classified as extant is CNDDB Occurrence #952, which is located along Pleasant Grove Creek, approximately 5.5 miles north west of the Project Area (CNDDB 2018).

5.2.4 Northern Harrier

The northern harrier *(Circus cyaneus)* is not listed pursuant to either the CESA or FESA; however, it is considered to be a species of special concern by the CDFW. This species is known to nest within the Central Valley, along the Pacific Coast, and in northeastern California. The northern harrier is a ground nesting species, and typically nests in emergent wetland/marsh, open grasslands, or savannah habitats. Foraging occurs within a variety of open habitats such as marshes, agricultural fields, and grasslands (Shuford and Gardali 2008).

The annual brome grasslands throughout the Project Area are suitable nesting and foraging habitat for this species. Northern harrier has not been documented in the CNDDB within 5 miles of the Project Area (CNDDB 2018).

5.2.5 White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is not federally or state listed, but is a CDFW fully protected species. This species is a yearlong resident in the Central Valley and is primarily found in or near foraging areas such as open grasslands, meadows, farmlands, savannahs, and emergent wetlands. White-tailed kites typically nest from March through June in trees within riparian, oak woodland, and savannah habitats of the Central Valley and Coast Range (Shuford and Gardali 2008).

The annual brome grasslands throughout the Project Area represent suitable foraging habitat for white-tailed kite, and the trees within the Project Area provide suitable nesting habitat. This species was observed foraging in the eastern portion of the Project Area during a field survey. The nearest documented occurrence of white-tailed kite in the CNDDB is Occurrence #56, which is located approximately 2.4 miles northwest of the Project Area, near the Woodcreek Golf Club (CNDDB 2018).

5.2.6 Bald Eagle

The bald eagle (*Haliaeetus leucocephalus*) is a raptor species that is federally delisted, but is listed as endangered under the CESA and is a CDFW fully protected species. In California, nests are mainly located in large trees or on cliff ledges in montane and foothill forests and woodlands near reservoirs, lakes, and rivers.

The annual brome grasslands within the Project Area represent marginally suitable foraging habitat for migrating bald eagle. Bald eagle has not been documented in the CNDDB within 5 miles of the Project Area (CNDDB 2018).

5.2.7 Loggerhead Shrike

The loggerhead shrike (*Lanius ludovicianus*) is not listed pursuant to either the CESA or FESA; however, it is a CDFW species of special concern. Loggerhead shrikes nest in small trees and shrubs in woodland and

savannah vegetation communities, and forage in open habitats throughout California (Shuford and Gardali 2008). The nesting season ranges from March through June.

The trees and annual brome grassland within the Project Area provide suitable nesting and foraging habitat for loggerhead shrike. Loggerhead shrike has not been documented in the CNDDB within 5 miles of the Project Area (CNDDB 2018).

5.2.8 Yellow Warbler

The yellow warbler *(Setophaga petechia)* is not listed pursuant to either the CESA or FESA; however, it is classified as a CDFW species of special concern. The yellow warbler is largely extirpated as a breeder in the Sacramento Valley, but it is a common migrant during the fall and winter months (Shuford and Gardali 2008). Yellow warblers generally occupy riparian vegetation in close proximity to streams. Preferred habitat in northern California is dominated by willows (*Salix* spp.), cottonwoods (*Populus* spp.), and Oregon ash (*Fraxinus latifolia*) (Shuford and Gardali 2008).

Although the Project Area is outside of this species' breeding range, it has been documented along Dry Creek, which is downstream of the Project Area (eBird 2017). Suitable winter foraging habitat is present in the Valley oak riparian woodlands within the Project Area.

5.3 Bats

An assessment of bat habitat within the Project Area, including all potential roosting habitat features, was performed in the field to determine the likelihood of the presence of the following species.

5.3.1 Pallid Bat

Pallid bat (*Antrozous pallidus*) is not federally or state listed, but is considered a CDFW species of special concern, and is classified by the Western Bat Working Group (WBWG) as a High priority species. It favors roosting sites in crevices in rock outcrops, caves, abandoned mines, hollow trees, and human-made structures such as barns, attics, and sheds (WBWG 2017). Though pallid bats are gregarious, they tend to group in smaller colonies of 10 to 100 individuals. It is a nocturnal hunter and captures prey in flight, but unlike most American bats, the species has been observed foraging for flightless insects, which it seizes after landing (WBWG 2017).

Tree hollows and exfoliating bark on trees throughout the Project Area represent suitable roosting habitat for pallid bat. Pallid bat has not been documented in the CNDDB within 5 miles of the Project Area (CNDDB 2018).

5.3.2 Silver-Haired Bat

Silver-haired bat (*Lasionycteris noctivagans*) is not federally or state listed, but is classified by the WBWG as a Medium priority species. Primarily considered a coastal and montane forest species, the silver-haired bat occurs in more xeric environments during winter and seasonal migrations (WBWG 2017). It roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. This insectivore's favored foraging sites include open wooded areas near water features (WBWG 2017).

Tree hollows and exfoliating bark on trees throughout the Project Area represent suitable roosting habitat for silver-haired bat. Silver-haired bat has not been documented in the CNDDB within 5 miles of the Project Area (CNDDB 2018).

5.3.3 Western Red Bat

Western red bat (*Lasiurus blossevillii*) is not federally or state listed, but is considered a CDFW species of special concern, and is classified by the WBWG as a High priority species. Western red bat is typically solitary, roosting primarily in the foliage of trees or shrubs (WBWG 2017). Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores) (WBWG 2017).

Trees within the Valley oak riparian woodland represent suitable roosting habitat for western red bat. Western red bat has not been documented in the CNDDB within 5 miles of the Project Area (CNDDB 2018).

5.3.4 Hoary Bat

The hoary bat (*Lasiurus cinereus*) is not federally or state listed, but is classified by the WBWG as a Medium priority species. It is considered to be one of the most widespread of all American bats with a range extending from Canada to central Chile and Argentina as well as Hawaii (WBWG 2017). Hoary bats are solitary and roost primarily in foliage of both coniferous and deciduous trees, near the ends of branches at the edge of clearings (WBWG 2017). This species may also occasionally roost in caves, beneath rock ledges, in woodpecker holes, in grey squirrel nests, under wood planks, or clinging to the side of buildings (WBWG 2017).

Trees within the Valley oak riparian woodland represent suitable roosting habitat for hoary bat. Hoary bat has not been documented in the CNDDB within 5 miles of the Project Area (CNDDB 2018).

6.0 IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

This section details potential project impacts to the sensitive biological resources discussed above.

6.1 Vegetation Communities

Project construction will result in impacts to approximately 26.5 acres of upland vegetation communities (**Table 3** and **Figure 7**).

Table 3. Vegetation Community Impacts and Avoidance within the Project Area

Vegetation Communities	Existing (ac.)	Impacts (ac.)	Avoided (ac.)
Annual Brome Grassland	28.5	23.3	5.2
Disturbed	3.1	3.1	0
Valley Oak Riparian Woodland	3.4	0.1	3.3
Total	**35.0**	**26.5**	**8.5**

6.2 Aquatic Resources

Of the approximately 1.064 acres of aquatic resources mapped within the Project Area, 0.234 acres will be impacted by the Project and 0.83 acre will be avoided in the open space areas (**Table 4** and **Figure 8**).

Table 4. Aquatic Resources Impacts and Avoidance within the Project Area

Resource Type	Existing (ac.)	Impacts (ac.)	Avoided (ac.)
Riparian Wetland	0.40	0	0.40
Seasonal Wetland	0.21	0.08	0.13
Seasonal Wetland Swale	0.07	0.07	0
Intermittent Stream	0.30	0	0.30
Total - Jurisdictional under 404 CWA	**0.98**	**0.15**	**0.83**
Drainage Ditch	0.084*	0.084*	0
Project Area Total	**1.064**	**0.234**	**0.83**

*Not jurisdictional under Section 404 CWA; however, may fall under the authority of Section 1602 of the Fish and Game Code.

Table 5 breaks down impacts to aquatic resources by Project improvement.

Table 5. Aquatic Resources Impacts by Project Improvement

Impacted Resource	Impact Acreage	Project Improvement
Riparian Wetland	0	Avoided - no improvement impacts
Seasonal Wetland	0.04	Mass grading for building pads/subdivision streets
Seasonal Wetland	0.04	Widening of Vineyard Road
Seasonal Wetland Swale	0.07	Mass grading for building pads/subdivision streets
Intermittent Stream	0	Avoided - no improvement impacts
Total - Jurisdictional under 404 CWA	**0.15**	**0.15**
Drainage Ditch	0.084*	Mass grading for building pads/subdivision streets
Total Project Impacts	**0.234**	

*Not jurisdictional under Section 404 CWA; however, may fall under the authority of Section 1602 of the Fish and Game Code.

6.3 Water Quality

Mass grading associated with Project construction will result in the disturbance of the existing vegetation cover and potentially could result in the deposition of sediment- or chemical-laden run-off in down-stream or down-slope aquatic features,

Similarly, completion of the Project will result in the creation of new impervious surfaces and thereby potentially increasing stormwater run-off from the Project Area adversely affecting down-stream aquatic features including the unnamed tributary to Dry Creek.

6.4 Special-Status Plant Species

The vegetation communities proposed for impact represent suitable habitat for a variety of special-status plant species, but protocol-level special-status plant surveys were conducted throughout the Project Area and in areas immediately to the north including the entire seasonal wetland that extends onto the adjacent parcel to the north, and none were found (Madrone 2018a). Therefore, no impacts to special-status plant species are anticipated for the Project.

6.5 Federally-Listed Large Vernal Pool Branchiopods

The seasonal wetlands and seasonal wetland swale proposed for impact represent suitable habitat for federally-listed large vernal pool branchiopods including vernal pool fairy shrimp, vernal pool tadpole shrimp, and Conservancy fairy shrimp, but protocol dry-season and wet-season surveys were conducted throughout the Project Area and in areas immediately to the north including the entire seasonal wetland that extends onto the adjacent parcel to the north, and none were found (Madrone 2018b). Therefore, no impacts to federally-listed large vernal pool branchiopods are anticipated for the Project.

6.6 Western Spadefoot Toad

The seasonal wetlands anticipated to be impacted by the Project represent suitable breeding habitat for western spadefoot toad; however, protocol wet-season vernal pool branchiopod surveys were conducted throughout the Project Area and in areas immediately to the north including the entire seasonal wetland that extends onto the adjacent parcel to the north (Madrone 2018b). Since no adults or tadpoles were observed, no impacts to western spadefoot toad are anticipated for the Project.

6.7 Nesting Raptors and Songbirds

Swainson's hawk, white-tailed kite, northern harrier, tricolored blackbird, and loggerhead shrike have the potential to nest within the Project Area, as do other more common bird species protected by the MBTA. If they were nesting on-site, removal of the nests would impact these species. Furthermore, birds nesting in avoided areas adjacent to construction could be disturbed by construction, which could result in nest abandonment.

6.8 Foraging Raptors

The annual brome grassland within the Project Area provides suitable foraging habitat for Swainson's hawk, white-tailed kite, northern harrier, bald eagle, and other more common raptors. Approximately 23.3 acres of annual brome grassland will be impacted during Project implementation (**Figure 7**).

6.9 Burrowing Owl

The annual brome grassland throughout the BRA Project Area provides marginally suitable foraging habitat for burrowing owl due to the relatively high density of yellow star-thistle (*Centaurea solstitialis*), and occasional ground-squirrel burrows and debris throughout the provide marginally suitable nesting habitat. If ground disturbances occur while burrowing owls were occupying burrows, fatalities may result.

6.10 Winter Foraging Birds

Yellow warbler has the potential to utilize the Valley oak riparian woodland within the Project. Only minimal impacts to riparian woodland are proposed as part of this Project, and as there is a relatively large amount of this vegetation type in the vicinity, this species is not anticipated to be impacted.

6.11 Roosting Bats

Trees throughout the BRA Project Area are habitat for various special-status bats species. If special-status bats were roosting in trees to be removed by Project construction, they could be injured or killed during the removal.

6.12 Individual Native Tree Impacts

RFE prepared a tree impact exhibit based on an arborist survey conducted by Sierra Nevada Arborists (**Attachment H**). Seven trees meeting the criteria of Protected Trees are slated for removal and have a combined DBH of 157 inches. An eighth native tree meets the DBH requirements, but was rated as poor (90% dead), and is therefore not considered a Protected Tree (**Table 6**).

Table 6. Summary of Project Tree Impacts

Tag No.	Common Name	Species	Multi-Stems (inches)	Total DBH (inches)	Dripline (feet)	Vigor
1	Interior Live Oak	*Quercus wislizeni*	14, 16, 25	55	29	Fair
7	Blue Oak	*Quercus douglasii*		6	8	Fair
8	Blue Oak	*Quercus douglasii*	4, 4, 6	14	10	Fair
13	Blue Oak	*Quercus douglasii*		11	15	Fair
103	Interior Live Oak	*Quercus wislizeni*		26	28	Fair
104	Interior Live Oak	*Quercus wislizeni*	5, 6, 6	17	20	Fair
105	Interior Live Oak	*Quercus wislizeni*	14, 14	28	30	Fair
106	*Pacific Willow*	*Salix lucida*	*8, 10, 11*	*29*	*14*	*Poor – 90% dead*

Protected trees remaining onsite could be subject to construction-related impacts as a result of work within their Protected Zone.

6.13 Oak Woodland Impacts

In accordance with the Interim Guidelines, impacts to individual native trees within any oak woodland areas that are less than two acres in total size are to be assessed and mitigated under the provisions of the Tree Ordinance. Likewise, trees within impact areas that are less than one acre in size are to be assessed and mitigated under the provisions of the Tree Ordinance. Therefore, impacts to native trees will be assessed as individual tree impacts under the Tree Ordinance.

7.0 MITIGATION FOR IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

The following are mitigation measures that are often required by CEQA lead agencies for impacts to sensitive biological resources that may be associated with construction of the Project.

7.1 Aquatic Resources

1. The Project Applicant shall apply for a Section 404 permit from the U.S. Army Corps of Engineers for impacts to Waters of the U.S. (Waters). Waters that will be impacted shall be replaced or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the USACE.
2. The Applicant shall apply for a Section 401 water quality certification from the RWQCB, and adhere to the certification conditions.
3. The Applicant shall apply for a Section 1600 Lake or Streambed Alteration Agreement from CDFW. The information provided will include a description of all of the activities associated with the Project, not just those closely associated with the drainages and/or riparian vegetation. Impacts will be outlined in the application and are expected to be in substantial conformance with the impacts to biological resources outlined in this document. Impacts for each activity will be broken down by temporary and permanent, and a description of the proposed mitigation for biological resource impacts will be outlined per activity and then by temporary and permanent. Information regarding Project-specific drainage and hydrology changes resulting from Project implementation will be provided as well as a description of storm water treatment methods. Minimization and avoidance measures will be proposed as appropriate and may include preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, seeding disturbed areas adjacent to open space areas with native seed, and installation of project-specific storm water BMPs. Mitigation may include restoration or enhancement of resources on- or off-site, purchase habitat credits from an agency-approved mitigation/conservation bank, off-site, working with a local land trust to preserve land, or any other method acceptable to CDFW.

7.2 Water Quality

As discussed in Section 1.1.5 (Drainage and Stormwater Management), the applicant has contracted RFE to prepare a preliminary drainage study and stormwater quality plan for the Project (RFE 2018). To mitigate for potential impacts to water quality, the applicant will comply with the recommendations of this report.

Proposed development may cause additional stormwater pollution that must be mitigated for the 2-year, 24-hour storm event before runoff leaves the site per the WPSWQDM. Proposed development will require hydromodification for the 2-year, 24-hour storm event before runoff leaves the site per the WPSWQDM.

RFE designed the drainage improvements per the standards of the Placer County SWMM and Placer Land Development Manual with underground storm drain pipes designed to convey peak flows expected during the design (10-year, 24-hour) storm event. RFE evaluated the peak downstream impacts in the unnamed tributary to Dry Creek from the project peak flows for the 10-year, 25-year, 50-year, 100-year, and 500-year design storm and found that there will not be any negative impacts.

RFE also designed bioretention planters to intercept and treat runoff prior to overland discharge into the unnamed tributary of Dry Creek. RFE designed these measures to meet the requirements of the WPSWQDM. The site design measures and treatment BMPs required for stormwater quality mitigation prove to be adequate to meet the hydromodification requirements of the WPSWQDM for the 2-year,24-hour storm event.

The project will use a combination of downspout disconnection and bio-retention to treat the project impervious surfaces (building roofs, driveways, and roads). The lot grading for this project assumes Type A drainage to the front of the lot without the use of subdrains. Therefore, downspouts from the future houses can be disconnected from the underground system, meaning runoff will flow overland through the lots before reaching street curb and gutters. Runoff from the roads and from the residential lots that does not infiltrate into the ground within the lots will flow into bioretention planters located adjacent to the roadways – in most cases, at the intersections. Stormwater that overflows the bioretention planters will enter the on-site underground storm drainage system. **Attachment B** is a figure provided by RFE summarizing drainage improvements.

Additionally, the project will minimize impacts to water quality through the implementation of appropriate BMPs during construction, which may include the following:

- All exposed soils and other fills will be permanently stabilized at the earliest practicable date with the use of hydroseeding and/or other means of revegetation or erosion control.
- The applicant will need to apply for a Clean Water Act Section 401 water quality certification from the Central Valley Regional Water Quality Control Board (RWQCB) and will comply with the terms and conditions (including erosion and sediment controls) specified by the RWQCB.

- Temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) will be employed for disturbed areas. No disturbed surfaces will be left without erosion control measures in place during the winter and spring months.
- A spill prevention and countermeasure plan shall be developed which would identify proper storage, collection and disposal measures for potential pollutants used onsite. The plan will also require the proper storage, handling, use, and disposal of petroleum products.
- Construction activities shall be scheduled to minimize land disturbance during peak runoff periods and to the immediate area required for construction. Soil conservation practices shall be completed during the fall or winter to reduce erosion during spring runoff. Existing vegetation will be retained where possible. To the extent feasible, grading activities shall be limited to the immediate area required for construction.
- Surface water runoff shall be controlled by directing flowing water away from critical areas and by reducing runoff velocity. Diversion structures such as terraces, dikes, and ditches shall collect and direct runoff water around vulnerable areas to prepared drainage outlets. Surface roughening, berms, check dams, hay bales, or similar devices shall be used to reduce runoff velocity and erosion.
- Sediment shall be contained when conditions are too extreme for treatment by surface protection. Temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out. The applicant will store, cover, and isolate construction materials, including topsoil and chemicals, to prevent runoff losses and contamination of groundwater.
- Topsoil removed during construction shall be carefully stored. Berms shall be placed around topsoil stockpiles to prevent runoff during storm events.
- Fuel and vehicle maintenance areas will be established away from all drainage courses and will be designed to control runoff.
- Disturbed areas shall be revegetated after completion of construction activities.

7.3 Special-Status Plant Species

Special-status plant surveys conducted throughout the Project Area in 2018 were negative, but given enough time, plants may become established in areas where suitable habitat exists. Therefore, if Project construction does not commence prior to the spring of 2021, another round of special-status plant surveys shall be conducted in areas proposed for impact prior to commencement of construction. If no special-status plant species are found, no further mitigation would be required. If special-status plants are found and will be impacted, mitigation for those impacts will be determined during consultation with the County. If the plant found is a perennial such as Sanford's arrowhead or big-scale balsamroot, then mitigation could consist of digging up the plant and transplanting into a suitable avoided area on-site prior to construction. If the plant found is an annual such as dwarf downingia, then mitigation could consist of collecting seed-bearing soil and spreading into a suitable constructed wetland at a mitigation site (as placing soil into an avoided wetland on-site would be considered fill).

7.4 Nesting Raptors and Other Birds

The following nest survey requirements apply if construction activities take place during the typical bird breeding/nesting season (typically February 1 through September 1):

7.4.1 Swainson's Hawk

A targeted Swainson's hawk nest survey shall be conducted throughout all accessible areas within ¼ mile of the proposed construction area no later than 14 days prior to construction activities. If active Swainson's hawk nests are found within ¼ mile of a construction area, construction shall cease within ¼ mile of the nest until a qualified biologist (Project Biologist) determines that the young have fledged, or it is determined that the nesting attempt has failed. If the Applicant desires to work within ¼ mile of the nest, the Applicant shall consult with CDFW and the County to determine if the nest buffer can be reduced. The Project Applicant, the Project biologist, the County, and CDFW shall collectively determine the nest avoidance buffer, and what (if any) nest monitoring is necessary. If an active Swainson's hawk nest is found within the Project site prior to construction and is in a tree that is proposed for removal, then the Project Applicant shall implement additional mitigation recommended by a qualified biologist based on CDFW guidelines and obtain any required permits from CDFW.

7.4.2 Burrowing Owls

A targeted burrowing owl nest survey shall be conducted of all accessible areas within 500 feet of the proposed construction area within 14 days prior to construction activities utilizing 60 foot transects as outlined in the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) (Staff Report). If an active burrowing owl nest burrow (i.e., occupied by more than one adult owl, and/or juvenile owls are observed) is found within 250 feet of a construction area, construction shall cease within 250 feet of the nest burrow until a qualified biologist (Project Biologist) determines that the young have fledged or it is determined that the nesting attempt has failed. If the Applicant desires to work within 250 feet of the nest burrow, the Applicant shall consult with CDFW and the County to determine if the nest buffer can be reduced. During the non-breeding season (late September through the end of January), the Applicant may choose to conduct a survey for burrows or debris that represent suitable nesting habitat for burrowing owls within areas of proposed ground disturbance, exclude any burrowing owls observed, and collapse any burrows or remove the debris in accordance with the methodology outlined in the Staff Report.

7.4.3 Other Birds

A pre-construction nesting bird survey shall be conducted by a qualified biologist on the project site and within a 500-foot radius of proposed construction areas, where access is available, no more than three (3) days prior to the initiation of construction. If there is a break in construction activity of more than two (2) weeks then subsequent surveys shall be conducted.

If active raptor nests, not including Swainson's hawk, or a tricolored blackbird nesting colony are found, no construction activities shall take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer will be established. These no-disturbance buffers may be reduced if a smaller buffer is proposed by the Project Biologist and approved by the County (and CDFW if it is a tricolored blackbird nesting colony) after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, habituation to existing or ongoing activity, and nest concealment (are there visual or acoustic barriers between the proposed activity and the nest). A qualified biologist can visit the nest as needed to determine when the young have fledged the nest and are independent of the site or the nest can be left undisturbed until the end of the nesting season.

7.4.4 Survey Report

A report summarizing the survey(s), including those for Swainson's hawk and burrowing owls, shall be provided to the Placer County Development Review Committee (DRC) and CDFW within 30 days of the completed survey and is valid for one construction season. If no nests are found, no further mitigation is required.

7.4.5 Changes to Buffers and Completion of Nesting

Should construction activities cause a nesting bird do any of the following in a way that would be considered a result of construction activities: vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop this agitated behavior. The exclusionary buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist in consultation with the County.

Construction activities may only resume within the buffer zone after a follow-up survey by the Project Biologist has been conducted and a report has been prepared indicating that the nest (or nests) are no longer active, and that no new nests have been identified.

7.5 Loss of Foraging Habitat

7.5.1 Swainson's Hawk

Approximately 23.3 acres of annual brome grassland within the Project Area that represents suitable foraging habitat for Swainson's hawks will be impacted during construction of the proposed Project (**Figure 7**). These impacts shall be mitigated through purchase and conservation of similar habitat as follows:

Prior to Project construction, a qualified biologist shall conduct a review of Swainson's hawk nest data available in the CNDDB and contact CDFW to determine if they have any additional nest data. If desired by the Project proponent, the biologist may conduct a survey of these nests to determine if they are still present. The biologist shall provide the County with a summary of his/her findings. If it is determined that

the project site is within 10 miles of an active Swainson's hawk nest (an active nest is defined as a nest with documented Swainson's hawk use within the past 5 years), the Applicant will mitigate for the loss of suitable Swainson's hawk foraging habitat by implementing one of the below measures:

- Active nest identified within 1 mile of the project site: One acre of suitable foraging habitat shall be protected for each acre of suitable foraging habitat developed. Protection shall be via purchase of mitigation bank credits or other land protection mechanism acceptable to the County.
- Active nest identified within 5 miles (but greater than 1 mile) of the project site: 0.75 acre of suitable foraging habitat shall be protected for each acre of suitable foraging habitat developed. Protection shall be via purchase of mitigation bank credits or other land protection mechanism acceptable to the County.
- Active nest identified within 10 miles (but greater than 5 miles) of the project site: 0.5 acre of suitable foraging habitat shall be protected for each acre of suitable foraging habitat developed. Protection shall be via purchase of mitigation bank credits or other land protection mechanism acceptable to the County.

7.5.2 Burrowing Owl

If nesting burrowing owls are found during the pre-construction survey, mitigation for the permanent loss of burrowing owl foraging habitat (defined as all areas of suitable habitat within 250 feet of the active burrow) shall be accomplished at a 1:1 ratio. The mitigation provided shall be consistent with recommendations in the Staff Report and may be accomplished within the Swainson's Hawk Foraging Habitat mitigation area if burrowing owls have been documented utilizing that area, or if the Project Biologist, the County, and CDFW collectively determine that the area is suitable.

7.5.3 Other Birds

Approximately 23.3 acres of annual brome grassland within the Project Area that represents suitable foraging habitat for northern harrier, white-tailed kite, bald eagle, and loggerhead shrike will be impacted by construction of the proposed Project (**Figure 7**). Though mitigation for impacts to foraging habitat for these species is not required pursuant to CEQA, the purchase of Swainson's hawk foraging habitat credits as described above in Section 7.5.1 will offset the loss of foraging habitat for these and other birds.

7.6 Roosting Bats

To protect bats potentially roosting within the Project Area, the following mitigation measures shall be implemented:

- If potential roosting habitat in the form of cavities in trees is identified within the areas proposed for development, the biologist will survey the potential roosting habitat during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees F) to determine presence of roosting bats. These surveys are recommended

to be conducted utilizing methods that are considered acceptable by bat experts. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras or a combination thereof;

- If cavity roosting bats are identified within any of the trees planned for removal, or if presence is assumed, trees should be removed outside of pup season only on days with temperatures in excess of 50 degrees F. Pup season is generally during the months of May through August. Two-step tree removal shall be utilized under the supervision of the qualified biologist. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree;
- To avoid potential impacts to foliage-roosting bat species (as opposed to the above-described cavity roosting species), it is recommended that all other tree removal be conducted from January through April on days with temperatures in excess of 50 degrees F.

7.7 Native Trees

The Project would require the removal of seven Protected Trees with a combined DBH of 157 inches. To mitigate for the loss of Protected Trees, the Project Applicant shall obtain a Tree Permit from Placer County's Planning Services Division prior to Improvement Plan approval. The Planning Services Division shall review the Tree Permit application as well as the final site improvement plans and determine the precise mitigation requirement at that time. The fee shall be paid into the Placer County Tree Preservation Fund at $100 per inch DBH removed or impacted.

The Tree Permit may be obtained as part of the improvement plan approval, or as a separate permit. To support the approval process, an Arborist Report will need to be prepared by an arborist or registered professional forester that includes specific information on the locations, condition, potential impacts of the activity, recommended actions and mitigation measures for all Protected Trees that could be impacted by the activity. Additionally, all Protected Trees within 50 feet of any development activity must be depicted on the site plan map. The site plan map shall indicate the exact location of the base and dripline of all Protected Trees within the project areas. A survey of the exact locations of the Protected Trees should be conducted by a California professional engineer or California professional land surveyor. The tree numbers should be shown on both the site plan and grading plan. The base elevation of each Protected Tree shall be shown on the grading plan.

Efforts should be made to save trees where feasible. This may include the use of retaining walls, planter islands, pavers, or other techniques commonly associated with tree preservation. The Improvement Plans shall include a note and show placement of temporary construction fencing around trees to be saved: The Applicant shall install a four foot tall, brightly colored (typically orange), synthetic mesh material fence (or an equivalent approved by the DRC at the following locations prior to any construction equipment being moved on-site or any construction activities taking place: at the limits of construction; outside the Protected Zone of all single-trunk trees six inches DBH or greater, or 10 inches DBH aggregate for multi-trunk trees; within 50 feet of any grading, road improvements, underground utilities, or other development activity; or as otherwise shown on the Tentative Subdivision Map.

No development of the Project, including grading, shall be allowed until this requirement is satisfied. Any encroachment within these areas, including Protected Zones of trees to be saved, must first be approved by the DRC. Temporary fencing shall not be altered during construction without written approval of the DRC. No grading, clearing, storage of equipment or machinery, etc., may occur until a representative of the DRC has inspected and approved all temporary construction fencing.

7.8 Worker Environmental Awareness Training

Prior to any ground-disturbing or vegetation-removal activities, a Worker Environmental Awareness Training (WEAT) shall be prepared and administered to the construction crews. The WEAT will include the following: discussion of the state and federal Endangered Species Act, the Clean Water Act, the Project's permits and CEQA documentation, and associated mitigation measures; consequences and penalties for violation or noncompliance with these laws and regulations; identification of special-status wildlife, location of any avoided Waters of the U.S; hazardous substance spill prevention and containment measures; and the contact person in the event of the discovery of a special-status wildlife species. The WEAT will also discuss the different habitats used by the species' different life stages and the annual timing of these life stages. A handout summarizing the WEAT information shall be provided to workers to keep on-site for future reference. Upon completion of the WEAT training, workers will sign a form stating that they attended the training, understand the information presented and will comply with the regulations discussed. Workers will be shown designated "avoidance areas" during the WEAT training; worker access should be restricted to outside of those areas to minimize the potential for inadvertent environmental impacts. Fencing and signage around the boundary of avoidance areas may be helpful.

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Figures

Figure 1. Site and Vicinity

Figure 2. California Natural Diversity Database Occurrences of Plant Species

Figure 3. California Natural Diversity Database Occurrences of Wildlife Species and Critical Habitat

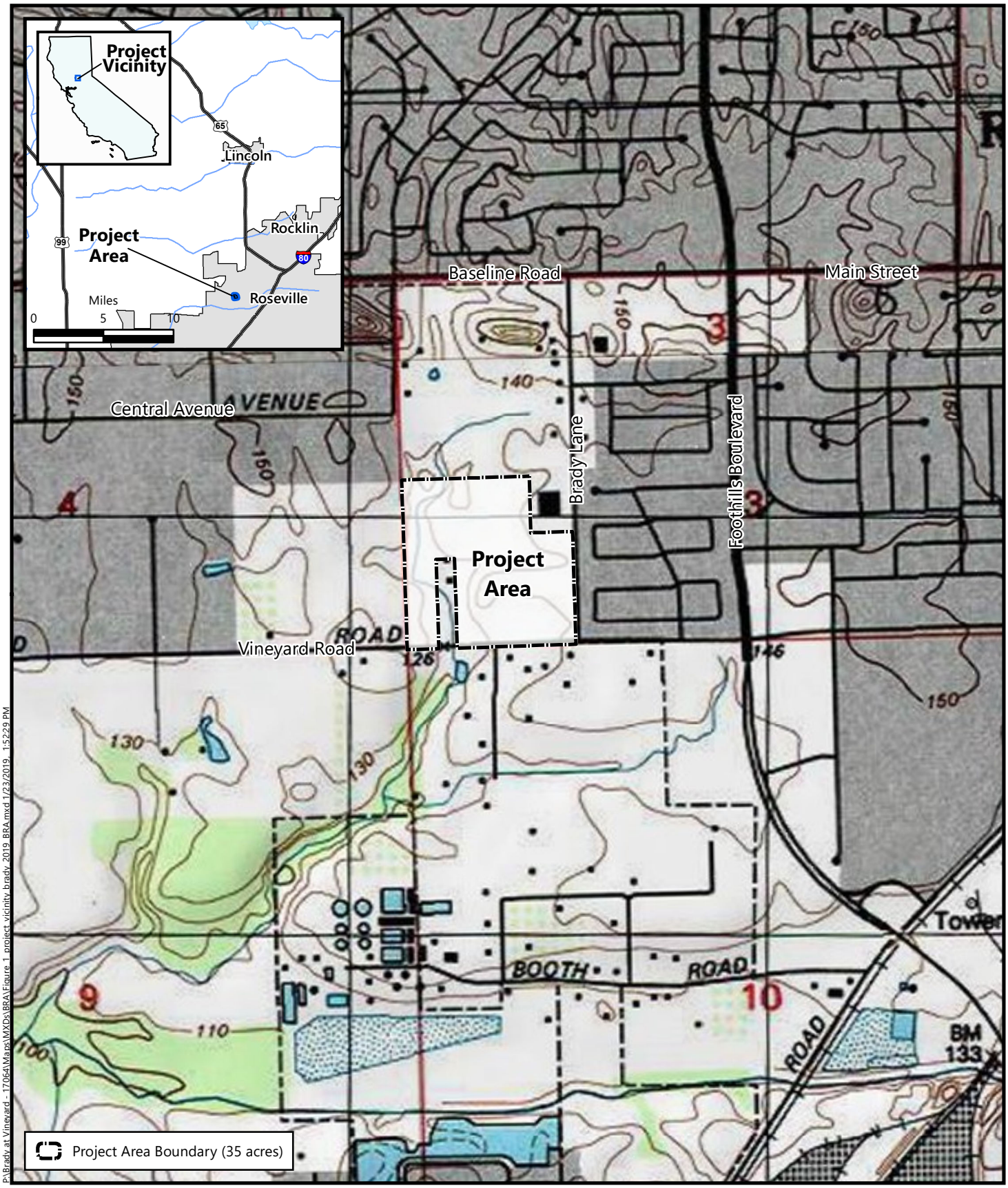
Figure 4. Vegetation Communities

Figure 5. Aquatic Resources

Figure 6. NRCS Soils

Figure 7. Vegetation Community Impacts

Figure 8. Imapacts to Aquatic Resources



N

Feet
0 500 1,000

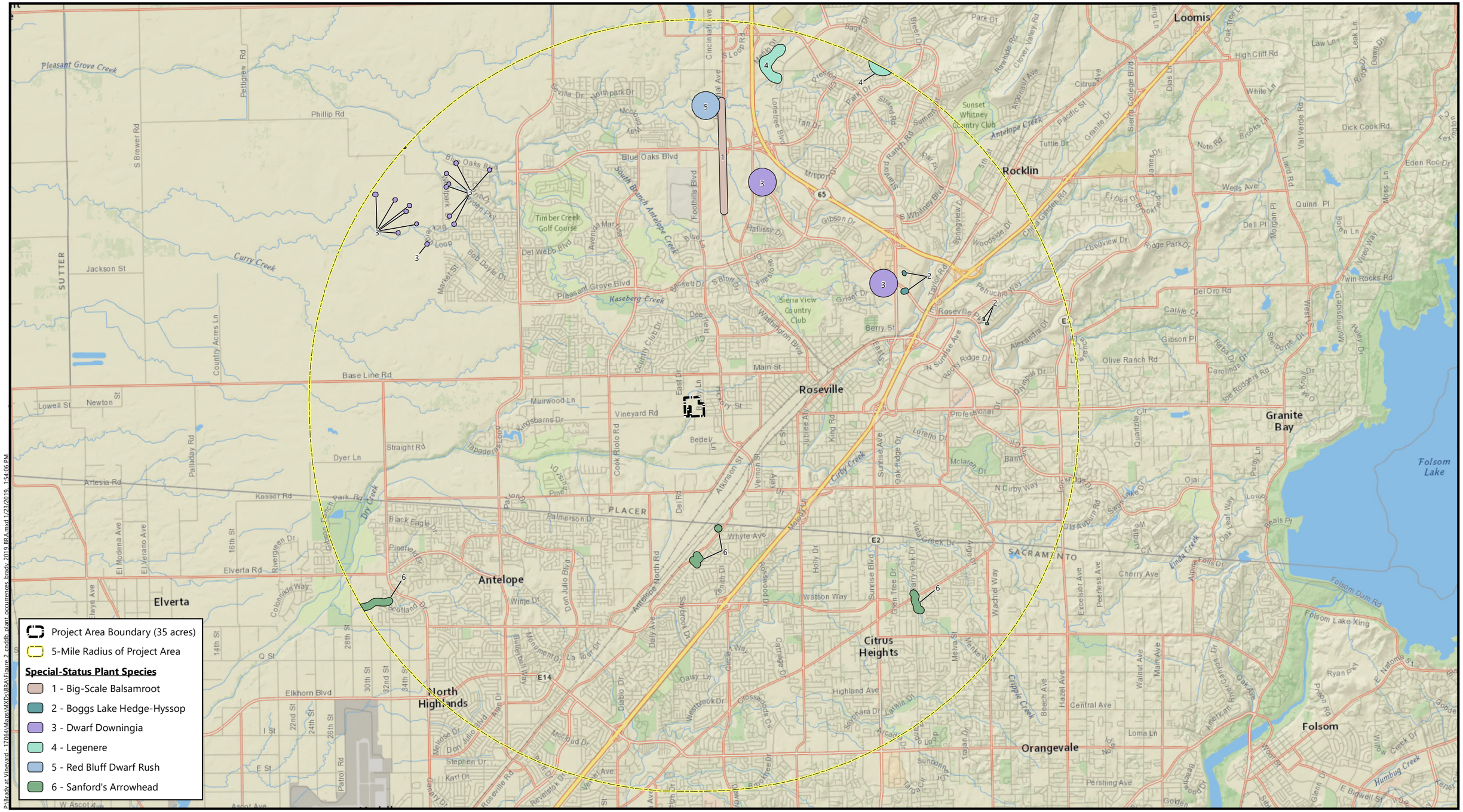
Source: United States Geologic Survey, 1992.
Section 3, Township 10 North, Range 6 East, MDB&M
"Roseville" and "Citrus Heights," California 7.5-Minute Topographic Quadrangles
Latitude: 38.745672; Longitude:-121.316204

Figure 1
Site and Vicinity

Brady at Vineyard
Placer County, California

MADRONE ECOLOGICAL CONSULTING

P:\Brady at Vineyard - 17064\Maps\MXDs\BRA\Figure 1_project vicinity brady_2019_BRA.mxd 1/23/2019, 1:52:29 PM



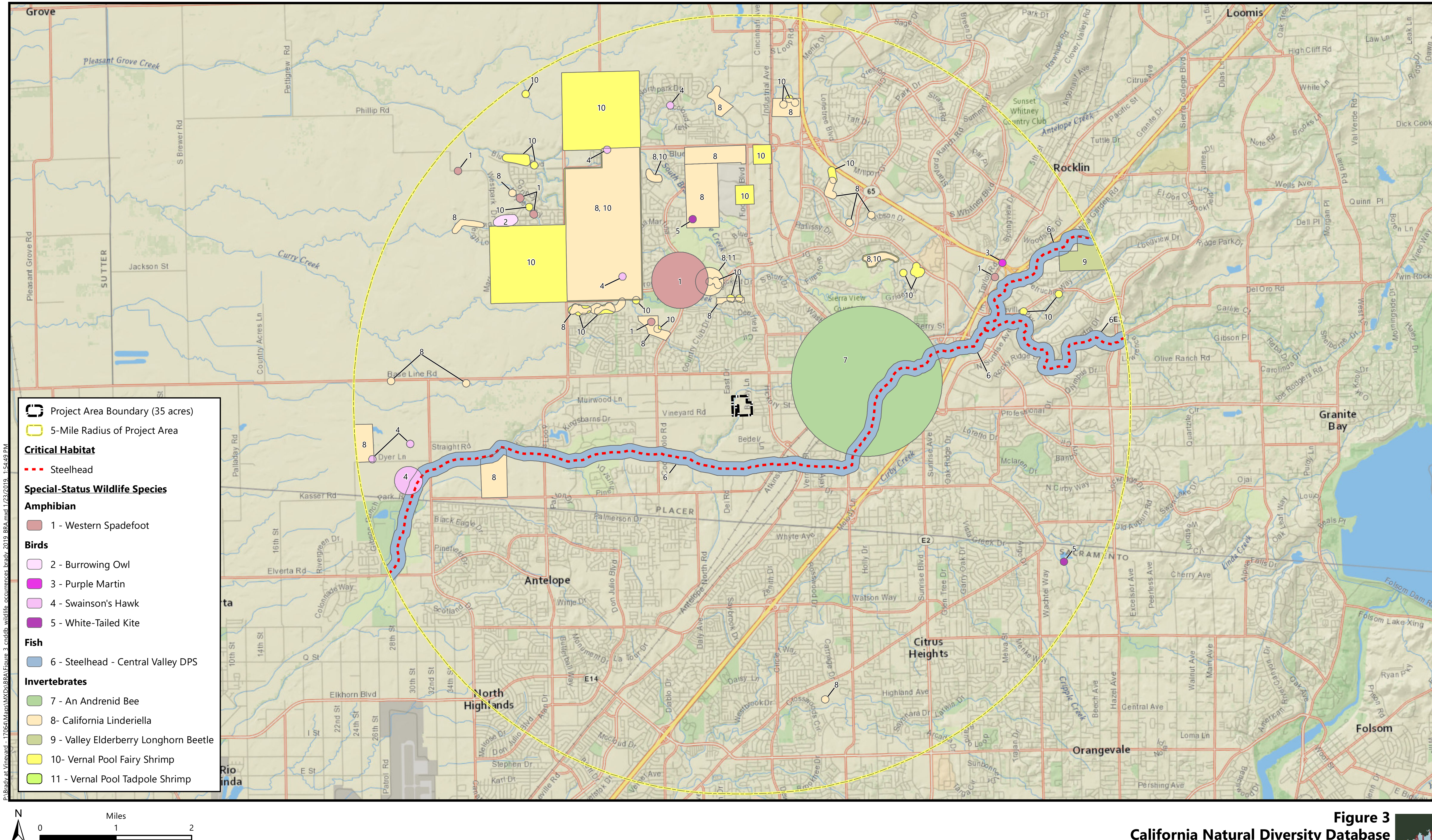
Source: *California Department of Fish and Wildlife*, August, 2018
Basemap Source: *National Geographic* and *ESRI*

Figure 2
California Natural Diversity Database Occurrences of Plant Species

Brady at Vineyard
Placer County, California

MADRONE ECOLOGICAL CONSULTING

P:\Brady at Vineyard - 17064\Maps\MXD\BRA\Figure 2 -cndb plant occurrences brady 2019 BRA.mxd 1/23/2019, 1:54:06 PM



Source: *California Department of Fish and Wildlife*, August 2018
Basemap Source: *National Geographic* and *ESRI*

Figure 3
California Natural Diversity Database Occurrences of Wildlife Species and Critical Habitat
Brady at Vineyard
Placer County, California

MADRONE ECOLOGICAL CONSULTING

N

Feet

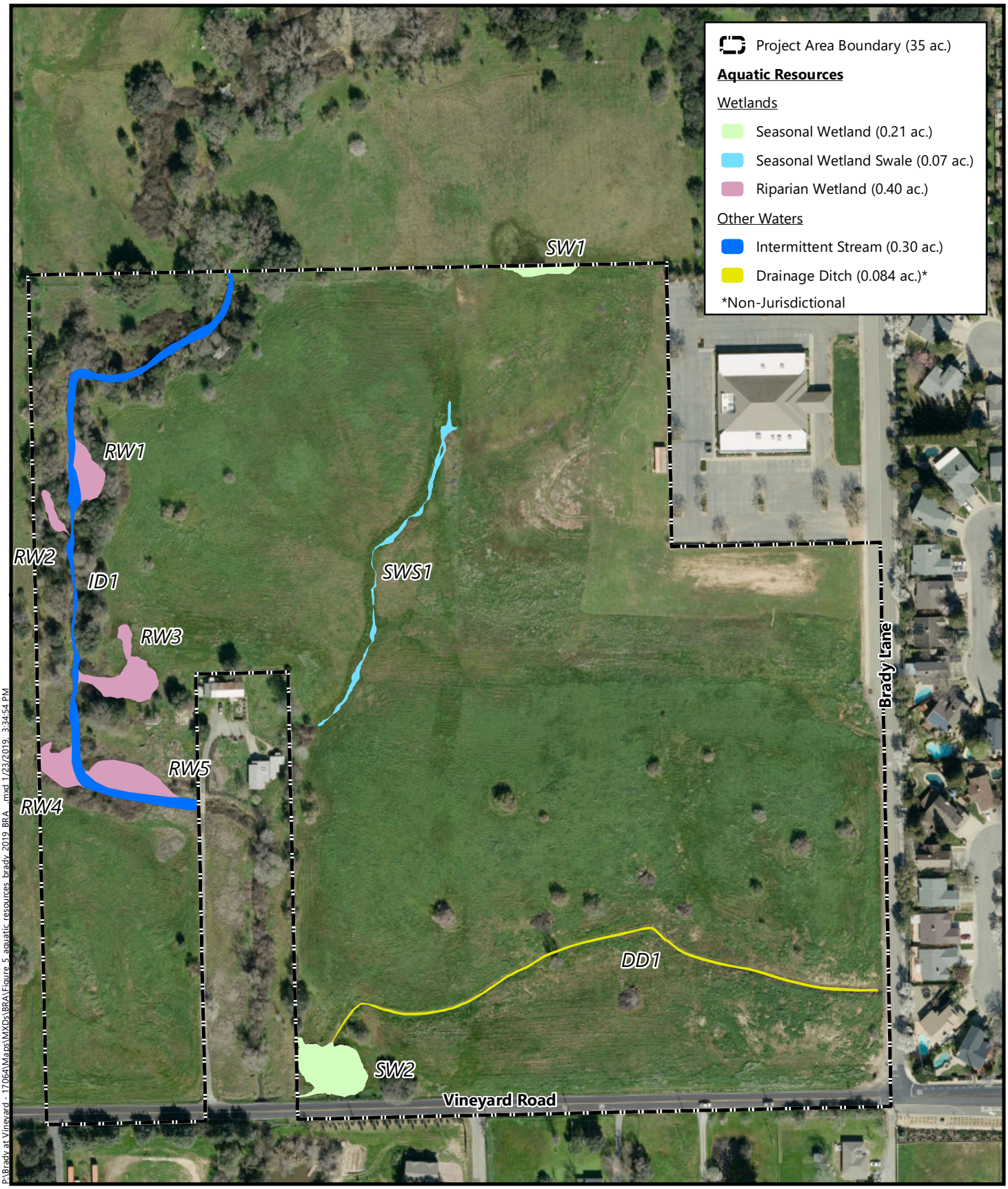
0 100 200

Aerial Source: *USDA, National Agriculture Imagery Program*, 1 March 2017

Figure 4
Vegetation Communities

Brady at Vineyard
Placer County, California

MADRONE ECOLOGICAL CONSULTING



P:\Brady at Vineyard - 17064\Maps\MXDs\BRA\Figure 5_aquatic resources_brady_2019_BRA_.mxd 1/23/2019, 3:34:54 PM

N

Feet

0 100 200

Aerial Source: *USDA, National Agriculture Imagery Program*, 1 March 2017

Figure 5
Aquatic Resources

Brady at Vineyard
Placer County, California

MADRONE ECOLOGICAL CONSULTING

N

Feet

0 100 200

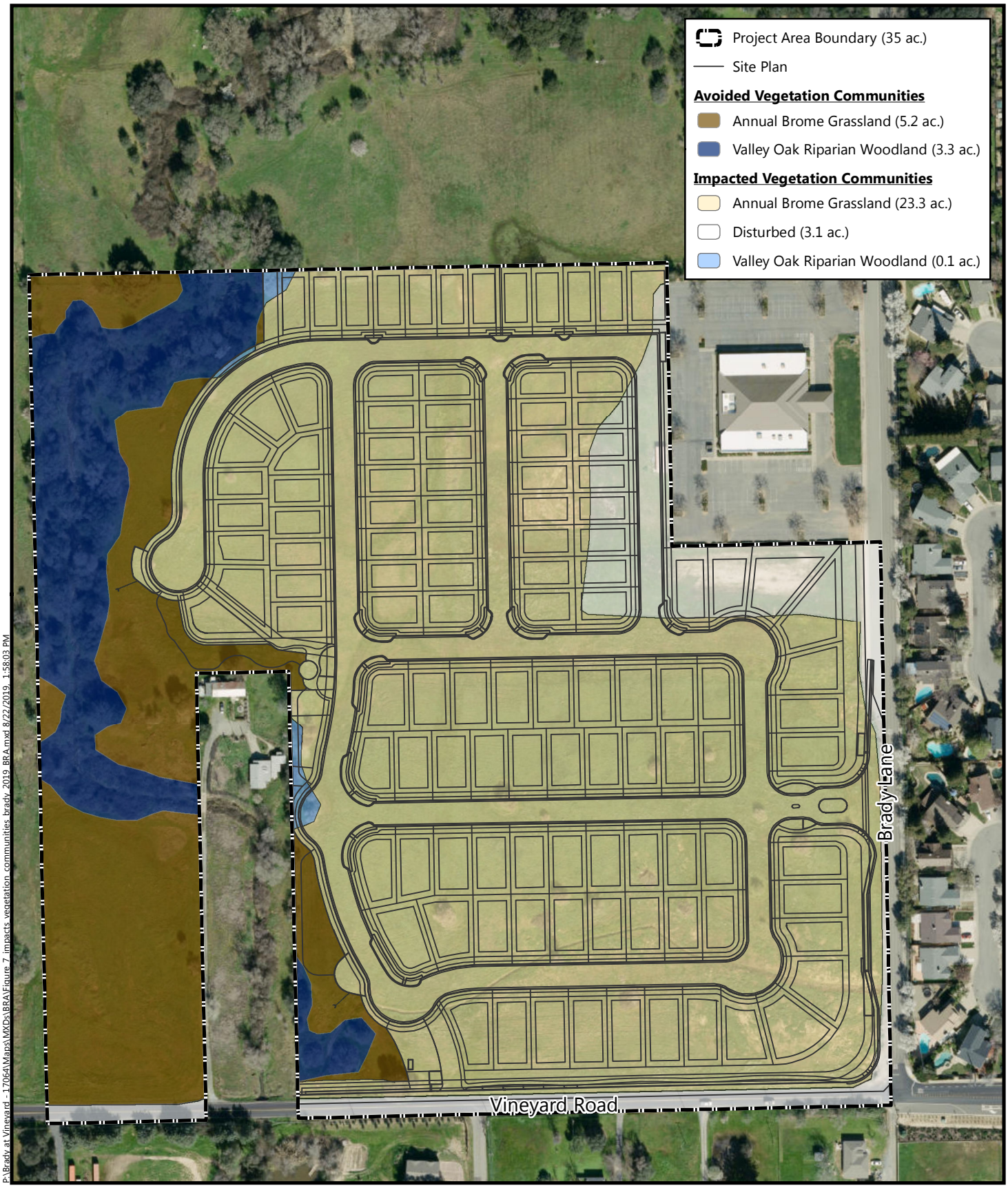
Soil Data Source: *USDA, SSURGO Data for Soil Survey, Placer County, California, Western Part.* 2017

Aerial Source: *USDA, National Agriculture Imagery Program,* 1 March 2017

Figure 6
NRCS Soils

Brady at Vineyard
Placer County, California

MADRONE ECOLOGICAL CONSULTING



N

Feet
0 100 200

Figure 7
Vegetation Community Impacts

Brady at Vineyard
Placer County, California

MADRONE ECOLOGICAL CONSULTING

Aerial Source: City of Roseville, 1 March 2017

PROJECT AREA AQUATIC RESOURCES						
Waters of the U.S.	**Directly Impacted**		**Avoided**		**Total Acreage**	**Total Linear Feet**
	(acres)	**(linear feet)**	**(acres)**	**(linear feet)**		
Riparian Wetland	0	-	0.40	-	0.40	-
Seasonal Wetland	0.08	-	0.13	-	0.21	-
Seasonal Wetland Swale	0.07	-	0.00	-	0.07	-
Intermittent Stream	0	-	0.30	1,180	0.30	1,180
Total:	**0.15**	**0**	**0.83**	**1,180**	**0.98**	**1,180**
Non-Jurisdictional	**Directly Impacted**		**Avoided**		**Total Acreage**	**Total Linear Feet**
	(acres)	**(linear feet)**	**(acres)**	**(linear feet)**		
Drainage Ditch	0.084	945	0	0	0.084	945
Project Area Total:	**0.234**	**945**	**0.83**	**1180**	**1.064**	**2,125**

P:\Brady at Vineyard - 17061\Maps\MXDs\BRA\Figure 8 Impacts aquatic resources brady 2019 BRA.mxd 8/22/2019, 1:48:08 PM

N

Feet
0 80 160

Aerial Source: City of Roseville, 1 March 2017

Figure 8
Impacts to Aquatic Resources

Brady at Vineyard
Placer County, California

MADRONE ECOLOGICAL CONSULTING

Attachments

Attachment A. Vesting Tentative Subdivision Map

Attachment B. Stormwater Quality Shed Map

Attachment C. IPaC Trust Resource Report for the Project Area

Attachment D. CNPS Inventory of Rare and Endangered Plants Query for the "Citrus Heights, California" USGS Quadrangle and Eight Surrounding Quadrangles

Attachment E. Wildlife List

Attachment F. USACE PJD Verification E-mail and Figure for Study Area 1 (SPK-2017-00976)

Attachment G. USACE AJD Verification Letter and Figure for Study Area 2 (SPK-2017-00976)

Attachment H. Tree Removal Exhibit – RFE Engineering, Inc.

Attachment A

Vesting Tentative Subdivision Map

VESTING TENTATIVE SUBDIVISION MAP

BRADY VINEYARD SUBDIVISION

BRADY LANE AND VINEYARD ROAD PLN18-00234
PLACER COUNTY, CA
(PORTION OF APN'S 473-020-002 AND 013)

LEGEND:

- DIMENSION POINT - NOTHING FOUND OR SET
- CENTERLINE
- BOUNDARY
- PROPOSED LOT LINE
- ROW
- EASEMENT
- SET BACK LINE
- FENCE
- 100-YR FLOOD PLAIN LIMITS
- STORM DRAIN MANHOLE
- SEWER MANHOLE
- JOINT POLE
- STREET LIGHT
- SIGN
- TEMPORARY SITE BENCHMARK
- CONTROL POINT

ASSESSOR'S PARCEL NO.:

PLACER COUNTY APN'S: 473-020-002 AND 013

USE:

VACANT

ZONING:

CURRENT: RS-AG-B-20; O; F-DR

PROPOSED: RS-B-X-5,000; O; F-DR

SETBACKS:

FRONT: 20'
SIDE (EXTERIOR): 7.5'
REAR: 10'

JURISDICTION:

PLACER COUNTY

EXISTING EASEMENTS:

AS SHOWN ON MAP.

PROPOSED EASEMENTS:

AS SHOWN ON MAP.

OWNER'S :

JAGROOP S. GILL, ET AL AS TO APN NO. 473-020-002, AND
SUKHBIR BRAR, ET AL AS TO APN NO. 473-020-013

CONTACT: SUKHBIR "STEVE" BRAR
2351 SUNSET BOULEVARD
ROCKLIN, CA 95765
PHONE: (916) 749-0967

ENGINEER:

SHAWN SOMERS, P.E.
RFE ENGINEERING, INC.
2260 DOUGLAS BLVD, SUITE 160
ROSEVILLE, CA 95661
PH: 916-772-7800

SURVEYOR:

WILLIAM F. McKINNEY, PLS
RFE ENGINEERING, INC.
2260 DOUGLAS BLVD, SUITE 160
ROSEVILLE, CA 95661
PH: 916-772-7800

FLOOD PLAIN:

ZONE AE
FEMA MAP NUMBER: 06061C1027H
EFFECTIVE DATE: NOVEMBER 2, 2018

AREA OF FLOOD PLAIN WITHIN PROPERTY: 3.82 ACRES.

FLOOD PLAIN SHOWN HEREON IS A COMBINATION OF FEMA BASE FLOOD ELEVATIONS (BFEs) - FROM THE FEMA STUDY TO BE RELEASED 11/2/2018 - AND THE FLOOD ELEVATIONS FROM THIS PROJECT'S HEC-RAS MODEL (WHICHEVER IS HIGHER AT A GIVEN STREAM STATION).

SERVICE REPRESENTATIVES

SERVICE	COMPANY	PHONE
GAS	PG&E	800-468-4743
ELECTRIC	PG&E	800-468-4743
TELEPHONE	AT&T	888-944-0447
WATER	CAL AM WATER	916-568-4210
SEWER	PLACER COUNTY CSA 28, ZONE 173 (DRY CREEK)	530-886-4916
DRAINAGE	PLACER COUNTY	530-889-7528
U.S.A.	UNDERGROUND SERVICE ALERT	800-227-2600
FIRE	CAL FIRE	530-745-3575
CABLE	WAVE BROADBAND	866-928-3123
PLANNING	PLACER COUNTY	530-745-3084
ELEMENTARY SCHOOL	DRY CREEK ELEMENTARY	916-770-8800
HIGH SCHOOL	ROSEVILLE JOINT UNION HIGH SCHOOL	916-786-2051
POLICE	PLACER COUNTY SHERIFF'S DEPARTMENT	530-889-7800
SOLID WASTE	RECOLOGY	530-885-3735

NOTES:

1) THE BRADY SUBDIVISION HOMEOWNER'S ASSOCIATION IS RESPONSIBLE FOR PRIVATE DRAINAGE EASEMENT MAINTENANCE.

2) THE PROPOSED ROADSIDE BIO-RETENTION AREAS ARE TO BE OWNED AND MAINTAINED BY BRADY SUBDIVISION HOMEOWNER'S ASSOCIATION.

3) RESIDENTIAL DRIVEWAY LENGTHS SHALL BE A MINIMUM OF 20 FEET IN LENGTH AS MEASURED FROM THE EDGE OF PAVEMENT OF THE ROAD TO THE FACE OF THE GARAGE DOOR.

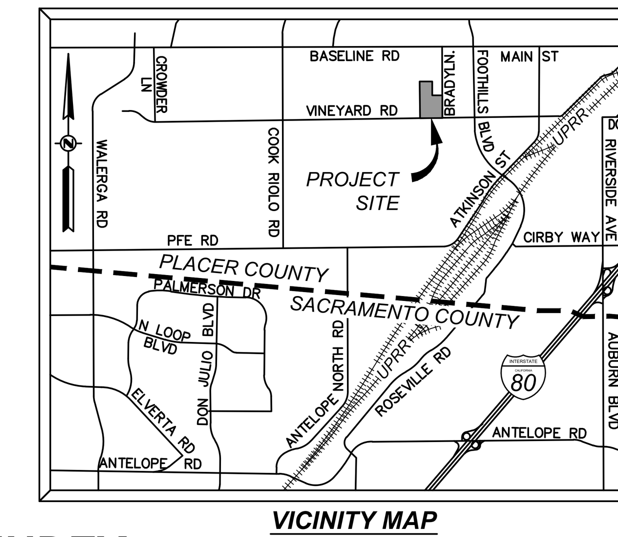
4) LETTERED LOT 'A' IS FOR THE SEWER LIFT STATION.

5) LETTERED LOTS 'B', 'C', & 'D' ARE LOTS FOR LANDSCAPE PURPOSES. LOT 'E' IS AN OPEN SPACE LOT.

6) LETTERED LOT 'F' IS A DESIGNATED PRIVATE ROAD EASEMENT APPURTENANT TO LOTS 1-119 AND A PUBLIC UTILITY EASEMENT, PUBLIC SUPPORT EASEMENT, EMERGENCY ACCESS EASEMENT AND PRIVATE DRAINAGE ACCESS EASEMENT.

60 0 60 120
1 INCH = 60 FEET

811 Know what's below. Call before you dig. or (800) 227-2600



VICINITY MAP
NOT TO SCALE

SHEET INDEX:

TM1 VESTING TENTATIVE SUBDIVISION MAP
TM2 VESTING TENTATIVE SUBDIVISION MAP SECTIONS
C1 EXISTING CONDITIONS PLAN
C2 PRELIMINARY GRADING PLAN (OVERALL)
C3 PRELIMINARY GRADING PLAN (NORTH HALF)
C4 PRELIMINARY GRADING PLAN (SOUTH HALF)
C5 PRELIMINARY UTILITY PLAN (NORTH HALF)
C6 PRELIMINARY UTILITY PLAN (SOUTH HALF)
C7 PRELIMINARY SITE PLAN WITH AERIAL
C8 PRELIMINARY STORM WATER QUALITY PLAN (BMPs)
C9 PRELIMINARY TREE REMOVAL PLAN
C10 PRELIMINARY TREE INVENTORY

LEGAL DESCRIPTION:

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE UNINCORPORATED AREA IN COUNTY OF PLACER, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

TRACT ONE:
ALL THAT REAL PROPERTY SITUATED, LYING AND BEING IN SECTION 3, TOWNSHIP 10 NORTH, RANGE 6 EAST, M.D.B.& M., AND FURTHER DESCRIBED AS BEING A PORTION OF LOT 4 AND LOT 8, AS SHOWN ON THE OFFICIAL MAP OF THE "HICKEN TRACT", ON FILE IN THE OFFICE OF THE COUNTY RECORDER AND MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS, TO-WIT: BEGINNING AT A POINT MARKING THE SOUTHWEST CORNER OF THE HEREIN DESCRIBED PARCEL AND WHICH POINT OF BEGINNING IS FURTHER DESCRIBED AS BEING THE SOUTHWEST CORNER OF THE AFORESAID SECTION 3; AND RUNNING THENCE FROM SAID POINT OF BEGINNING NORTH 89° 33' 45" EAST, 250 FEET ALONG THE SOUTH LINE OF SAID SECTION 3; THENCE RUNNING NORTH 00° 27' 15" WEST, 703.80 FEET; THENCE NORTH 89° 33' 45" EAST, 145.10 FEET; THENCE SOUTH 00° 27' 15" EAST, 703.80 FEET TO A POINT ON THE SOUTHERLY LINE OF SAID SECTION 3; THENCE ALONG THE SOUTHERLY LINE OF SECTION 3, NORTH 89° 33' 45" EAST, 273.09 FEET; THENCE NORTH 00° 54' 00" WEST, 1319.92 FEET TO A POINT ON THE NORTH LINE OR THE AFOREMENTIONED "HICKEN TRACT"; THENCE ALONG THE SAID NORTH LINE OF THE "HICKEN TRACT", SOUTH 89° 25' 30" WEST, 668.80 FEET TO THE NORTHWEST CORNER OF LOT 4 OF THE SAID "HICKEN TRACT", WHICH POINT IS FURTHER DESCRIBED AS BEING COMMON TO THE SOUTHEAST CORNER OF LOT 31, AS SHOWN ON THE OFFICIAL AMENDED MAP OF "ROSECREST SUBDIVISION", ON FILE IN THE OFFICE OF THE COUNTY RECORDER; AND RUNNING THENCE SOUTH 00° 54' 45" EAST, 1318.36 FEET TO THE POINT OF BEGINNING. EXCEPTING THEREFROM THE AMOUNT TAKEN FOR COUNTY ROAD ALONG THE SOUTH LINE.

TRACT TWO:
PARCEL 2 AS SHOWN ON THAT CERTAIN PARCEL MAP FILED IN BOOK 25 OF PARCEL MAPS, AT PAGE 4, OFFICIAL RECORDS OF PLACER COUNTY, SAID PARCEL 2 BEING GRANTED TO R & S TRUST, ET. AL. PER DOCUMENT NO. 2016-0049026, OFFICIAL RECORDS OF PLACER COUNTY, TOGETHER ALL OF THE LAND DESCRIBED IN THE GRANT DEED TO IMPACT CHURCH PER DOCUMENT NO. 2011-0003666, OFFICIAL RECORDS OF PLACER COUNTY, BEING A PORTION OF PARCEL 1 AS SHOWN ON SAID PARCEL MAP, SAID PARCELS BEING A PORTION OF FRACTIONAL SECTION 3, T. 10N., R. 6E., M.D.M., EXCEPTING THEREFROM ALL THAT PORTION OF SAID DOC #2011-0003666 BEING DESCRIBED AS FOLLOWS: BEGINNING AT A POINT ON THE NORTH LINE OF SAID PARCEL 1, SAID POINT ALSO BEING ON THE NORTH LINE OF SAID DOC #2011-0003666, FROM WHICH POINT, THE NORTHWEST CORNER OF SAID PARCEL 1 BEARS SOUTH 89° 31' 52" WEST, 338.39 FEET; THENCE FROM SAID POINT OF BEGINNING, ALONG THE NORTH LINE OF SAID DOC #2011-0003666, THE FOLLOWING THREE (3) COURSES AND DISTANCES: (1) NORTH 89° 31' 52" EAST, 51.76 FEET; (2)SOUTH 00° 28' 19" EAST, 17.33 FEET; AND (3) NORTH 89° 27' 41" EAST, 276.15 FEET, TO THE NORTHEAST CORNER OF SAID DOC #2011-0003666, SAID POINT ALSO BEING ON THE EAST LINE OF SAID PARCEL 1; THENCE ALONG THE EAST LINE OF SAID DOC #2011-0003666 AND THE EAST LINE OF SAID PARCEL 1, SOUTH 00° 28' 19" EAST, 428.80 FEET; THENCE LEAVING SAID EAST LINE, SOUTH 89° 27' 36" WEST, 328.27 FEET; THENCE NORTH 00° 25' 31" WEST, 446.20 FEET, TO THE POINT OF BEGINNING.
THE ABOVE DESCRIPTION ENCOMPASSES ONE LEGAL PARCEL OF LAND AS APPROVED BY MINOR BOUNDARY LINE ADJUSTMENT NO.
PLN16-00287, RECORDED APRIL 6, 2017 AS INSTRUMENT NO. 2017-0025722-00, OF OFFICIAL RECORDS
APN: 473-020-007-000 AND PORTION 473-020-009-000 (OLD)
473-020-013-000 (NEW NOT YET ASSESSED)

PROPOSED LOT AREAS

TOTAL SIZE: 32.04 AC
FLOODPLAIN AREA: 3.82 AC
ROW DEDICATION: 1.57 AC
NET BUILDABLE AREA: 26.65 AC

OPEN SPACE LOT 'E': 6.34 AC
LANDSCAPE LOTS: 1.44 AC (LOTS 'B', 'C', & 'D')
PARK AREA: 1.25 AC (WITHIN OPEN SPACE LOT 'E')

DATE OF AERIAL SURVEY:

POINT CO.
DATE: JUNE 6, 2017

ABBREVIATIONS

AC	ASPHALT CONCRETE
DAE	DRAINAGE ACCESS EASEMENT
DE	DRAINAGE EASEMENT
DI	DROP INLET
BSL	BUILDING SETBACK LINE
CL	CENTERLINE
EAE	EMERGENCY ACCESS EASEMENT
(E)	EXISTING
EP	EDGE OF PAVEMENT
FL	FLOW LINE
GR	GRATE
INV	INVERT
IRR	IRRIGATION
MPE	MULTI-PURPOSE EASEMENT
MPTE	MULTI-PURPOSE TRAIL EASEMENT
NAP	NOT A PART
OH	OVER HEAD POWER LINES
PSE	PUBLIC SUPPORT EASEMENT
PUE	PUBLIC UTILITY EASEMENT
(P)	PROPOSED
ROW	RIGHT-OF-WAY
SDMH	STORM DRAIN MANHOLE
SSMH	SANITARY SEWER MANHOLE
TBC	TOP BACK OF CURB
UG	UNDERGROUND
WA	WATER
WM	WATER METER

ENGINEER'S STATEMENT:

THIS VESTING TENTATIVE SUBDIVISION MAP ACCURATELY CONFORMS TO SECTION 16.12.040 OF PLACER COUNTY LAND DEVELOPMENT MANUAL.

SIGNATURE DATE

REGISTERED PROFESSIONAL ENGINEER SHAWN B. SOMERS No. C 80625 Exp. 3-31-21 CIVIL STATE OF CALIFORNIA

SURVEYOR'S STATEMENT:

I HEREBY STATE THAT THIS TENTATIVE MAP ACCURATELY DEPICTS THE LOCATION, WIDTH, TYPE, AND RECORDING INFORMATION OF ALL RECORD EASEMENTS LISTED IN THE PRELIMINARY TITLE REPORT ISSUED BY PLACER TITLE COMPANY, ORDER NO. P-170175 DATED MARCH 30, 2017.

SIGNATURE DATE

PROFESSIONAL LAND SURVEYOR WILLIAM F. McKINNEY No. 4715 Exp. 09-30-21 STATE OF CALIFORNIA

NO.	REVISION	DATE	BY	APPRV'D
	PRELIMINARY PLAN DRAFT - NOT FOR CONSTRUCTION			

DESIGN	DRAWN	QUANT.
BY: RFE	BY: XXX	
CHECK: RFE	CHECK: RFE	

0 1 2 ORIGINAL SCALE IS IN INCHES

RFE ENGINEERING, INC
Civil Engineers • Planners • Surveyors
2260 Douglas Blvd, Suite 160, Roseville, CA 95661
Ph: 916-772-7800 Fax: 916-772-7804
www.RFEengineering.com

SUKHBIR BRAR
2351 SUNSET BOULEVARD,
ROCKLIN, CA 95765
PH: (916) 749-0967

VESTING TENTATIVE SUBDIVISION MAP
BRADY VINEYARD SUBDIVISION
PLACER COUNTY, CA
(APN'S 473-020-002 & 013) PLN18-00234

Drawing — of —
Sheet TM1 of Total 12

08/01/2019

RFE PROJECT #17059 – VINEYARD ROAD AND BRADY LANE, PLACER COUNTY, CALIFORNIA

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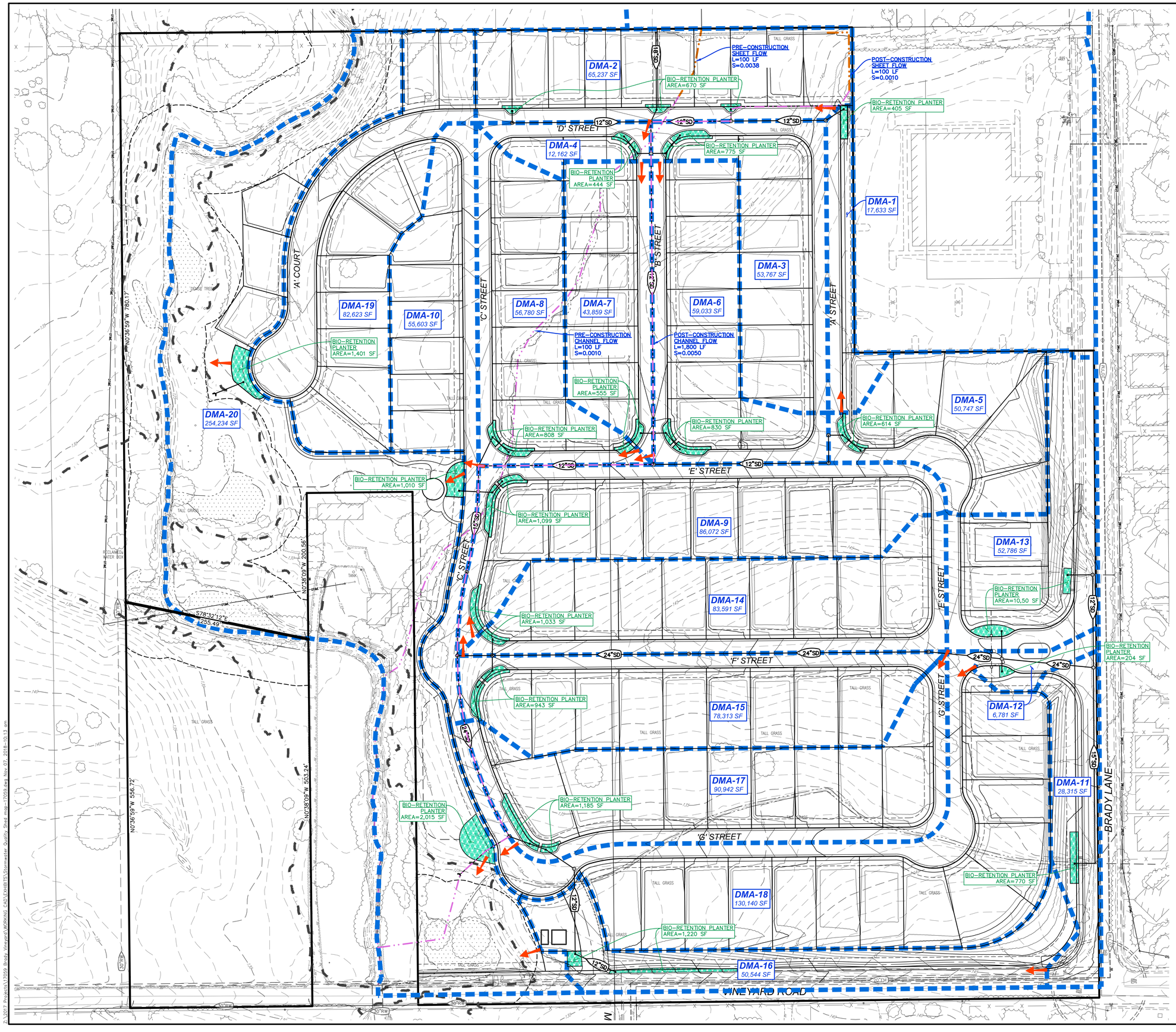
Attachment B

Stormwater Quality Shed Map



LEGEND

DRAINAGE AREA DESIGNATIONS AND AREA	DMA-3 53,767 SF
DRAINAGE AREA BOUNDARY	
SHEET FLOW	
CHANNEL FLOW	
OVERLAND RELEASE	
FLOW NODE ID	D1
PIPE ID	SD1
POND LIMITS	
BIORETENTION	
WETLAND AREA	

APPRV'D	BY	DATE	REVISION

BY	CHECK NO.
DESIGN SBS	RFE
DRAWN SBS	RFE
QUANT.	

0 1 2 ORIGINAL SCALE IS IN INCHES

PRELIMINARY NOT FOR CONSTRUCTION

SUKHBIR BRAR
2351 SUNSET BOULEVARD,
ROCKLIN, CA 95765
PH: (916) 749-0967

RFE ENGINEERING, INC.
Civil Engineers • Planners • Surveyors
2260 Douglas Blvd. Suite 160, Roseville, CA 95661
Ph: 916-772-1700 Fax: 916-772-7904
www.RFEengineering.com

BRADY VINEYARD SUBDIVISION
B RADY LANE AND VINEYARD ROAD,
PLACER COUNTY, CA
(APNS 417-020-002 & 013) FLN16-00234

STORMWATER QUALITY SHED MAP

Drawing SM1 of Total 1

11/07/2018

RFE PROJECT #17059 – VINEYARD ROAD AND BRADY LANE, PLACER COUNTY, CALIFORNIA

Z:\2017 Projects\17059 Brady Vineyard\WORKING CAD\EXHIBITS\Stormwater Quality Shed map-17059.dwg Nov 07, 2018-10:13 am

Attachment C

IPaC Trust Resource Report for the Project Area

IPaC resource list

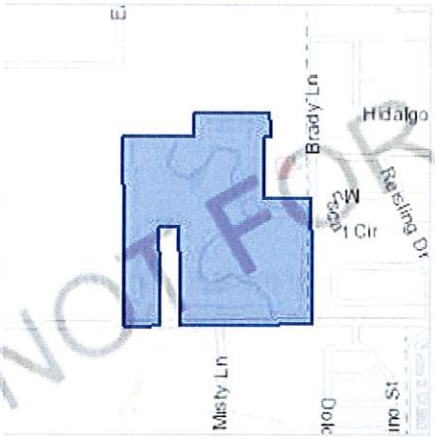
This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Placer County, California



Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Reptiles

NAME	STATUS
Giant Garter Snake Thamnophis gigas No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

NOT FOR CONSULTATION

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Burrowing Owl Athene cunicularia This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9737	Breeds Mar 15 to Aug 31
California Thrasher Toxostoma redivivum This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Common Yellowthroat Geothlypis trichas sinuosa This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

NOT FOR CONSULTATION

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the E-bird Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and

NOT FOR CONSULTATION

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

NOT FOR CONSULTATION

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Attachment D

CNPS Inventory of Rare and Endangered Plants Query for the "Citrus Heights, California" USGS Quadrangle and Eight Surrounding Quadrangles Area

CNPS California Native Plant Society

Inventory of Rare and Endangered Plants

Plant List

14 matches found. *Click on scientific name for details*

Search Criteria

uads 3812174, 3812173, 3812172, 3812164, 3812163, 3812162, 3812154 3812153 and 3812152;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Chloropyron molle ssp. hispidum	hispid bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Sep	1B.1	S1	G2T1
Clarkia biloba ssp. brandegeeae	Brandegee's clarkia	Onagraceae	annual herb	May-Jul	4.2	S4	G4G5T4
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	4.2	S3	G3
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	1B.2	S2	G2

Juncus leiospermus var. ahartii	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	1B.2	S1	G2T1
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	Juncaceae	annual herb	Mar-Jun	1B.1	S2	G2T2
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	1B.1	S2	G2
Navarretia myersii ssp. myersii	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	1B.1	S2	G2T2
Navarretia nigelliformis ssp. nigelliformis	adobe navarretia	Polemoniaceae	annual herb	Apr-Jun	4.2	S3	G4T3
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	1B.1	S2	G2
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	1B.1	S1	G1
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3

Suggested Citation

California Native Plant Society, Rare Plant Program. 2018. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 30 June 2018].

- Search the Inventory
- Simple Search
- Advanced Search
- Glossary

- Information

- About the Inventory
- About the Rare Plant Program
- CNPS Home Page
- About CNPS
- Join CNPS

- Contributors
- The Calflora Database
- The California Lichen Society
- California Natural Diversity Database
- The Jepson Flora Project
- The Consortium of California Herbaria
- CalPhotos

- Questions and Comments
- rareplants@cnps.org Contact us

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Attachment E

Wildlife List

Wildlife Species Observed within the Brady at Vineyard BRA Study Area

Species Name	Common name
Reptiles and Amphibians	
Pseudacris regilla	Pacific tree frog
Sceloporus occidentalis	Western fence lizard
Birds	
Accipiter cooperii	Cooper's hawk
Agelaius phoeniceus	Red-winged blackbird
Antigone canadensis	Sandhill crane
Aphelocoma californica	California scrub jay
Ardea alba	Great egret
Branta canadensis	Canada goose
Buteo jamaicensis	Red-tailed Hawk
Cathartes aura	Turkey vulture
Columbia livia	Rock dove
Charadrius vociferous	Killdeer
Corvus brachyrhynchos	American crow
Elanus leucurus	White-tailed kite
Euphagus cyanocephalus	Brewer's blackbird
Falco sparverius	American kestrel
Mimus polyglottos	Northern mockingbird
Passerculus sandwichensis	Savannah sparrow
Sayornis nigricans	Black phoebe
Tyrannus verticalis	Western kingbird
Zenaida macroura	Mourning dove
Zonotrichia leucophrys	White-crowned sparrow
Mammals	
Lepus californicus	Black-tailed hare
Mephitis mephitis	Striped skunk
Otospermophilus beecheyi	California ground squirrel

Attachment F

USACE PJD Verification E-mail and Figure for Study Area 1 (SPK-2017-00976)

Matt Hirkala

From: Fisher, Leah M CIV USARMY CESPK (US) <Leah.M.Fisher@usace.army.mil>
Sent: Wednesday, February 14, 2018 9:15 AM
To: Sarah Vonderohe
Cc: Matt Hirkala
Subject: Notification of AR verification for the Brady at Vineyard, Study Area 1, Placer County, CA (SPK-2017-00976) (UNCLASSIFIED)
Attachments: brady_vineyard_ARD_2017_PJD.PDF

CLASSIFICATION: UNCLASSIFIED

Dear Ms. VonderOhe:

We are responding to your November 17, 2017, request for verification of an aquatic resources delineation for the Brady at Vineyard, Study Area 1. The approximately 28-acre site is located near Dry Creek and is west of Brady Lane and north of Vineyard Road in Section 3, Township 10 N, Range 6 E, MDB&M, Latitude 38.7455356°, Longitude -121.316222°, Placer County, California.

Based on available information, we concur with your aquatic resources delineation for Study Area 1, which consists of approximately 0.30 acre of intermittent stream, 0.07 acre of seasonal wetland swale, 0.21 acre of seasonal wetland, and 0.40 acre of riparian wetland, as depicted on the attached November 1, 2017 (revised February 13, 2018), Aquatic Resources Delineation for Brady at Vineyard, Study Area 1 drawing, prepared by Madrone Ecological Consulting.

This verification letter does not constitute a determination of jurisdiction (JD). A JD is not required to process an Nationwide Permit verification or application for a Department of the Army permit. If you do not require a JD for the site, your permit application/verification request may be processed sooner.

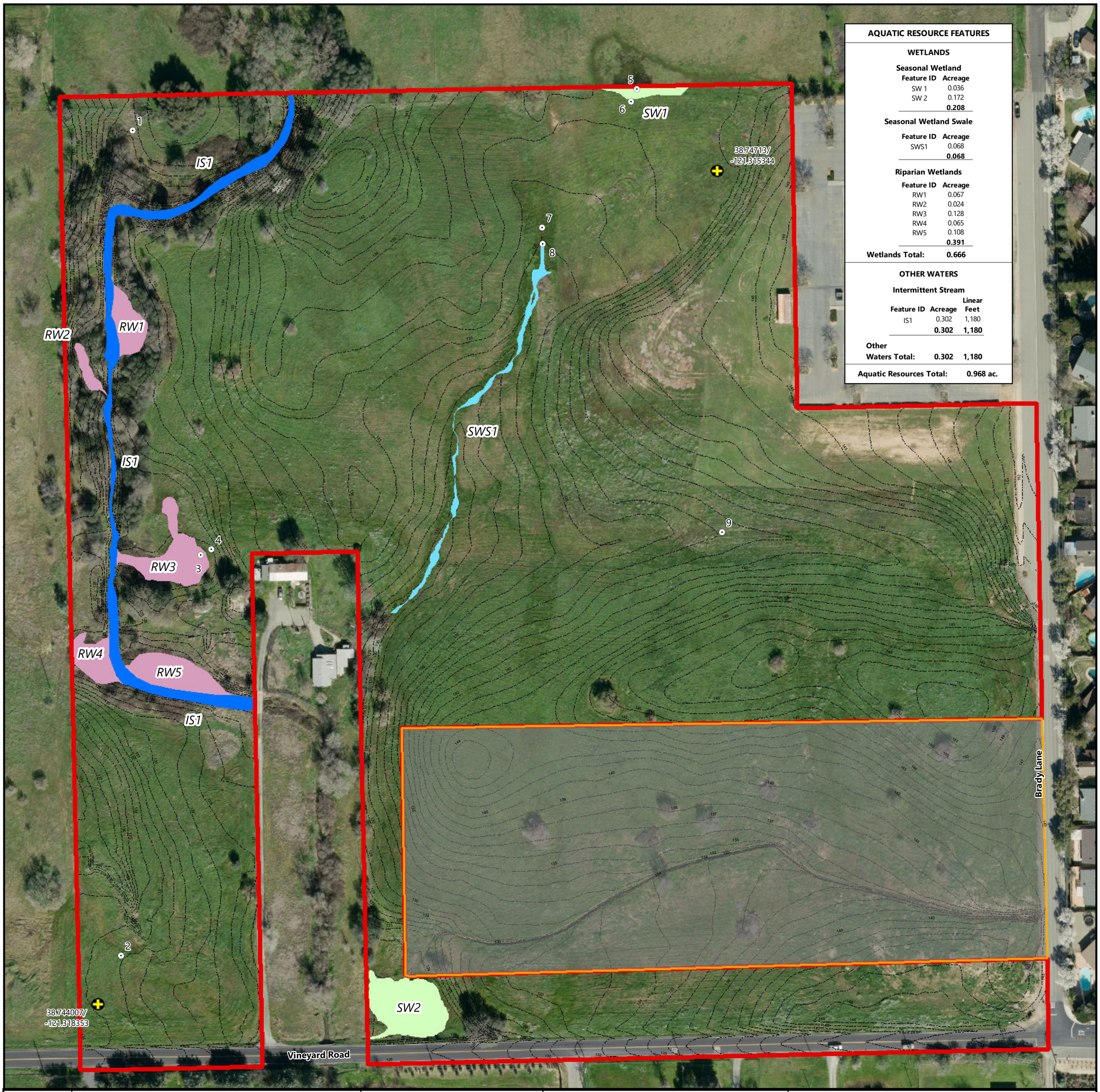
Please refer to identification number SPK-2017-00976 in any correspondence concerning this project. If you have any questions, please contact me at the address below.

v/r, Leah

Leah M. Fisher
Senior Regulatory Project Manager
United States Army Corps of Engineers
Sacramento District, Regulatory Division
1325 J Street, Room 1350
Sacramento, California 95814-2922
Leah.M.Fisher@usace.army.mil
Office: 916.557.6639 | Fax: 916.557.7803 Customer Service Hours: 9:00am to 3:00pm M-F

We want your feedback! Take the survey:
http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

Information on our Regulatory Program:
http://www.spk.usace.army.mil/Missions/Regulatory.aspx



AQUATIC RESOURCE FEATURES

WETLANDS

Seasonal Wetland

Feature ID	Acreage
SW 1	0.036
SW 2	0.172
	0.208

Seasonal Wetland Swale

Feature ID	Acreage
SWS1	0.068
	0.068

Riparian Wetlands

Feature ID	Acreage
RW1	0.067
RW2	0.024
RW3	0.128
RW4	0.065
RW5	0.108
	0.391

Wetlands Total: 0.666

OTHER WATERS

Intermittent Stream

Feature ID	Acreage	Linear Feet
IS1	0.302	1,180
	0.302	**1,180**

Other Waters Total: 0.302 1,180

Aquatic Resources Total: 0.968 ac.

Project Name: Brady at Vineyard
Map Title: Aquatic Resources Delineation, Study Area 1
Path: P:\Brady at Vineyard - 170564\Maps\brady_vineyard_ARD_2017_PID.mxd
Date Map Prepared: 1 November 2017
Date Map Revised: 13 February 2018

Notes:
Scale: 1 inch = 100 feet
Coordinate System: CORS96 California State Plane, Zone II (FIPS 0402)
Datum: NAD83
Vertical Datum: NAVD 88
Projection: Lambert Conformal Conic
Aerial Base: USDA, National Agriculture Imagery Program
Aerial Base Flown: 1 March 2017
Date Map Prepared: 1 November 2017
Date Map Revised: 13 February 2018
Map Prepared by: N. Bente, M. Hirkaka
Delineation Performed by: M. Hirkaka
Definitions:
ac. = acre
USDA = United States Department of Agriculture

N

0 50 100 200
Feet

Prepared For:

Sukhbir Brar
2351 Sunset Boulevard
Suite 170-280
Rocklin, California 95746

Study Area 1 (28 ac.)
Study Area 2 (7 ac.)
Reference Point (decimal degrees, NAD83)
1-Foot Topographic Contour

Aquatic Resources

Wetlands
Riparian Wetland (0.391 ac.)
Seasonal Wetland (0.208 ac.)
Seasonal Wetland Swale (0.068 ac.)

Other Waters
Intermittent Stream (0.302 ac.)

Aquatic Resources Delineation
Brady at Vineyard
Study Area 1

Placer County, California

MADRONE ECOLOGICAL CONSULTING
8421 Auburn Boulevard, Suite 248
Citrus Heights, California 95610
(916) 822.3220 | www.madroneeco.com

Attachment G

USACE AJD Verification Letter and Figure for Study Area 2 (SPK-2017-00976)

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

March 20, 2018

Regulatory Division (SPK-2017-00976)

Mr. Sukhbir Brar
2351 Sunset Boulevard
Rocklin, California 95746

Dear Mr. Brar:

We are responding to your agent's November 17, 2017, request for an approved jurisdictional determination for the Brady at Vineyard site, Study Area 2. The approximately 7-acre study area is located near Dry Creek and is west of Brady Lane and north of Vineyard Road, in Section 3, Township 10 North, Range 6 East, Mount Diablo Baseline & Meridian, Latitude 38.7455356°, Longitude -121.316222°, Placer County, California.

Based on available information, we concur with your agent's aquatic resources delineation for Study Area 2, as depicted on the enclosed November 1, 2017, *Aquatic Resources Delineation, Brady at Vineyard, Study Area 2*, drawing, prepared by Madrone Ecological Consulting (enclosure 1).

The 0.084 acre of drainage ditch, identified as "DD1" on the enclosed drawing, was excavated wholly in and drains only uplands, and does not carry a relatively permanent flow of water. Therefore, this feature is not a water of the United States and is currently not regulated by the U.S. Army Corps of Engineers. Based upon this information, we have determined that there are no waters of the United States within Study Area 2.

We are enclosing a copy of the *Approved Jurisdictional Determination Form* for your site (enclosure 2).

This approved jurisdictional determination is valid for five years from the date of this letter, unless new information warrants revision of the determination before the expiration date. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 Code of Federal Regulations (CFR) Part 331.

A *Notification of Appeal Process (NAP) and Request for Appeal (RFA) Form* is enclosed (enclosure 3). If you request to appeal this determination, you must submit a completed RFA form to the South Pacific Division Office at the following address: Administrative Appeal Review Officer, Army Corps of Engineers, South Pacific Division, CESPD-PDO, 1455 Market Street, 2052B, San Francisco, California 94103-1399, Telephone: 415-503-6574, FAX: 415-503-6646.

In order for an RFA to be accepted by the Corps, we must determine that the form is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that the form was received by the Division Office within 60 days of the date of the NAP. It is not necessary to submit an RFA form to the Division Office unless you object to the determination in this letter.

We recommend that you provide a copy of this letter and notice to all other affected parties, including any individual who has an identifiable and substantial legal interest in the property.

This approved jurisdictional determination has been conducted to identify the limits of aquatic resources subject to U.S. Army Corps of Engineers jurisdiction under Section 404 of the Clean Water Act for the particular site identified in this request.

We appreciate feedback, especially about interaction with our staff and our processes.

Please refer to identification number SPK-2017-00976 in any correspondence concerning this project. If you have any questions, please contact me at our California North Section Office, Regulatory Division, U.S. Army Corps of Engineers, 1325 J Street, Room 1350, Sacramento, California 95814-2922, by email at *Leah.M.Fisher@usace.army.mil*, or telephone at (916) 557-6639. For program information or to complete our Customer Survey, visit our website at *www.spk.usace.army.mil/Missions/Regulatory.aspx*.

Sincerely,

Leah M. Fisher
Senior Project Manager
California North Section

Enclosures

cc (w/enlc. 1):
Sarah VonderOhe, Madrone Ecological Consulting, svonderohe@MadroneEco.com
Robert Leidy, USEPA, leidy.robert@epa.gov
CA Regional Water Quality Control Board, Region 5, info5@waterboards.ca.gov
CA Department of Fish and Wildlife, North Central Region, R2Info@wildlife.ca.gov
Placer County, Planning Services Division, planning@placer.ca.gov

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Mr. Sukhbir Brar	File No.: SPK-2017-00976	Date: March 20, 2018

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
→	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at *http://www.usace.army.mil/cecw/pages/reg_materials.aspx* or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer (address on reverse). This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer (address on reverse). This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer (address on reverse). This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

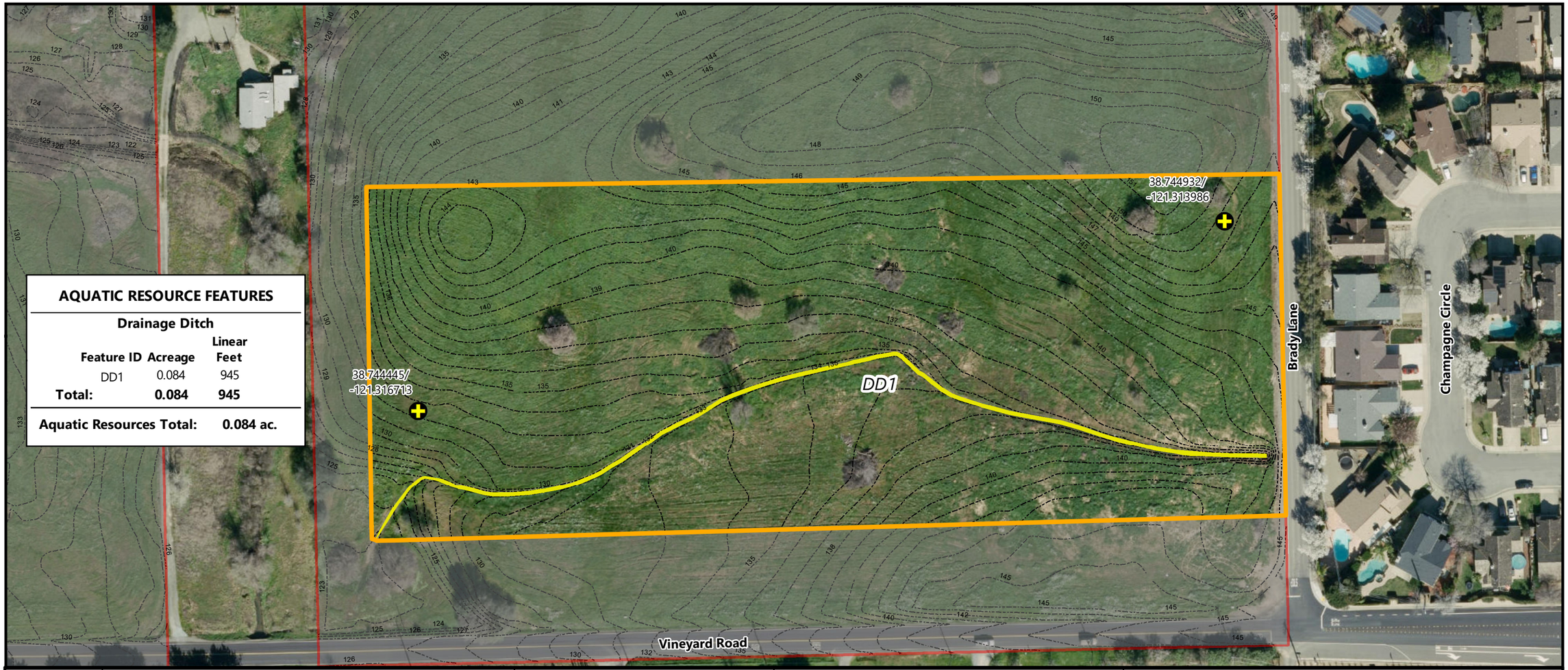
Leah M. Fisher
Senior Regulatory Project Manager
U.S. Army Corps of Engineers
Sacramento District
1325 J Street, Room 1350
Sacramento, California 95814-2922
Phone: (916) 557-6639, FAX 916-557-7803
Email: Leah.M.Fisher@usace.army.mil

If you only have questions regarding the appeal process you may also contact:

Thomas J. Cavanaugh
Administrative Appeal Review Officer
U.S. Army Corps of Engineers
South Pacific Division
1455 Market Street, 2052B
San Francisco, California 94103-1399
Phone: 415-503-6574, FAX 415-503-6646)
Email: Thomas.J.Cavanaugh@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:



AQUATIC RESOURCE FEATURES

Drainage Ditch

Feature ID	Acreage	Linear Feet
DD1	0.084	945
Total:	**0.084**	**945**

Aquatic Resources Total: 0.084 ac.

Project Name: Brady at Vineyard
Map Title: Aquatic Resources Delineation, Study Area 2
Path: P:\Brady at Vineyard - 1706\4-Maps\brady_vineyard_ARD_2017_A1D.mxd
Date Map Prepared: 1 November 2017
Date Map Updated:

Notes:

Scale: 1 inch = 100 feet
Coordinate System: CORS96 California State Plane, Zone II (FIPS 0402)
Datum: NAD83
Vertical Datum: NAVD 88
Projection: Lambert Conformal Conic
Aerial Base: USDA, National Agriculture Imagery Program
Aerial Base Flown: 1 March 2017
Date Map Prepared: 1 November 2017
Map Prepared by: N. Bente, M. Hirkaka
Delineation Performed by: M. Hirkaka

Definitions:

ac. = acre
USDA = United States Department of Agriculture

N

0 50 100 200
Feet

Prepared For:

Sukhbir Brar
2351 Sunset Boulevard
Suite 170-280
Rocklin, California 95746

Study Area 2 (7 ac.)
Study Area 1 (28 ac.)
Reference Point (decimal degrees, NAD83)
1-Foot Topographic Contour

Aquatic Resources

Drainage Ditch (0.084 ac.)

Aquatic Resources Delineation
Brady at Vineyard
Study Area 2

Placer County, California

MADRONE ECOLOGICAL CONSULTING
8421 Auburn Boulevard, Suite 248
Citrus Heights, California 95610
(916) 822.3220 | www.madroneeco.com

Attachment H

Tree Removal Exhibit – RFE Engineering, Inc.

LEGEND

DESCRIPTION	EXISTING
TREE & DRIP	
TREE REMOVAL	
WETLAND AREA	
50' WETLAND SETBACK	
100-YEAR FLOOD PLAIN LIMITS	

APN: 473-010-014 KOLOVOS GEORGE P TR ET AL

APN: 473-010-013 KOLOVOS GEORGE P TR ET AL

APN: 473-010-012 KOLOVOS GEORGE P TR ET AL

APN: 473-010-020 HUNTINGTON REVOCABLE LIVING TRUST & HUNTINGTON GLO

APN: 473-020-011 THE FATHER'S HOUSE

APN: 473-020-002 GILL JABGROUP S TR ET AL

APN: 473-020-013 GILL JABGROUP S TR ET AL

APN: 474-020-01 S. BURTON HARLYN TRUSTEE ET AL

APN: 473-020-001 WU XIU QIN

APPROX. 100-YR FLOOD PLAIN LIMITS

FLOOD ZONE AE

50' WETLAND SETBACK

N.A.P.

N.A.P.O.T.S.

'A' COURT

'A' STREET

'B' STREET

'C' STREET

'D' STREET

'E' STREET

'F' STREET

'G' STREET

LOT 'A'

LOT 'B'

LOT 'C'

LOT 'D'

LOT 'E'

LOT 'F'

30' EVE

BRADY LANE

VINEYARD ROAD

MISTY LANE

1 INCH = 60 FEET

Know what's below. Call before you dig. or (800) 227-2600

DESIGN	SBS	RFE	
DRAWN	SBS	RFE	
QUANT.			

ORIGINAL SCALE IS IN INCHES 0 1 2

PRELIMINARY NOT FOR CONSTRUCTION

SUKHBIR BRAR
2351 SUNSET BOULEVARD,
ROCKLIN, CA 95765
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BRADY SUBDIVISION
VINEYARD ROAD AND BRADY LANE,
PLACER COUNTY, CA
(APNs 473-020-002 & 013) PLN18-00234

TREE REMOVAL EXHIBIT

Drawing 1 of Total 2

10/12/2018

RFE PROJECT #17059 – VINEYARD ROAD AND BRADY LANE, PLACER COUNTY, CALIFORNIA

Z:\2017 Projects\17059 Brady Vineyard\WORKING CAD\EXHIBITS\Tree Removal Exhibit.dwg Oct 12, 2018-01:59 pm

TREE #	COMMON NAME	SPECIES	MULTI-STEMS (inches)	TOTAL DBH (inches)	DLR (feet)	CONDITIONAL ASSESSMENT						NOTABLE CHARACTERISTICS	MAINTENANCE RECOMMENDATIONS	REMOVE
						RTCR	TRUNK	LIMBS	FOLIAGE	STRUCTURE	VIGOR			
1	Interior Live Oak	*(Quercus wislizeni)*	14,16,25	55	29	Fair	Fair	Fair	Fair	Fair	Fair	Forks 2' above grade; slightly above average amount of deadwood.	None at this time.	Remove
2	Interior Live Oak	*(Quercus wislizeni)*	4,6	10	7	Fair	Fair	Fair	Fair	Fair	Fair	Supporting a partially failed Willow tree.	None at this time.	
3	Interior Live Oak	*(Quercus wislizeni)*		7	9	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
4	Interior Live Oak	*(Quercus wislizeni)*		7	11	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
5	Pacific Willow	*(Salix lucida)*	14,16	30	35	Poor	Poor	Fair	Fair	Poor	Fair	Recent partial failure of the root system has left the tree lying on grade and in adjacent trees; slightly above average amount of deadwood.	None at this time.	
6	Interior Live Oak	*(Quercus wislizeni)*		17	17	Fair	Fair	Fair	Fair	Fair	Fair	Measured 2' above grade; trunk and some limbs are covered with dense poison oak growth.	***Remove the poison oak growth.***	
7	Blue Oak	*(Quercus douglasii)*		6	8	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	Remove
8	Blue Oak	*(Quercus douglasii)*	4,4,6	14	10	Fair	Fair	Fair	Fair	Fair	Fair	Forks at grade and 3' above grade; slightly above average amount of deadwood.	None at this time.	Remove
9	Interior Live Oak	*(Quercus wislizeni)*	8,9	17	30	Obscured	Obscured	Fair	Fair	Obscured	Fair	Tag on branch. Root collar and lower trunk not visible due to dense vegetation around the base of the tree; main stems grow one sided to the east and then turn downward.	***Clear surrounding vegetation and reevaluate.***	
10	Interior Live Oak	*(Quercus wislizeni)*	14,14,16	44	25	Poor to fair	Poor to fair	Fair	Fair	Poor to fair	Fair	Forks just above grade; callusing basal lower trunk wounds, various locations, with minor to moderate decay; weak attachments; out of balance south and east, with portions of the tree lying on grade; slightly above average amount of deadwood.	None at this time.	
11	Blue Oak	*(Quercus douglasii)*		11	10	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
12	Blue Oak	*(Quercus douglasii)*		23	28	Fair	Fair	Fair	Fair	Fair	Fair	Out of balance to the southwest; slightly above average amount of deadwood.	None at this time.	
13	Blue Oak	*(Quercus douglasii)*		11	15	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	Remove
14	Interior Live Oak	*(Quercus wislizeni)*		6	16	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
15	Interior Live Oak	*(Quercus wislizeni)*		15	24	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
16	Interior Live Oak	*(Quercus wislizeni)*	6,7	13	15	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
17	Interior Live Oak	*(Quercus wislizeni)*		13	17	Fair	Fair	Fair	Fair	Fair	Fair	Slightly out of balance to the south; slightly above average amount of deadwood.	None at this time.	
18	Blue Oak	*(Quercus douglasii)*		6	7	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
19	Blue Oak	*(Quercus douglasii)*		6	9	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
20	Blue Oak	*(Quercus douglasii)*		10	16	Fair	Poor to fair	Poor to fair	Fair	Poor to fair	Fair	Southerly stem has wounding 7'-9' above grade; above average amount of deadwood.	None at this time.	
21	Blue Oak	*(Quercus douglasii)*		7	10	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
22	Blue Oak	*(Quercus douglasii)*	8,8	16	24	Obscured	Obscured	Poor to fair	Poor to fair	Obscured	Poor to fair	Root collar and lower trunk obscured by dense vegetation; partially over creek bank; some of the tree is lying prone on grade; above average amount of deadwood.	None at this time.	
23	Interior Live Oak	*(Quercus wislizeni)*		10	22	Poor to fair	Poor to fair	Fair	Fair	Poor to fair	Fair	Past partial failure of the root system has left the tree growing at an angle; out of balance to the south; above average amount of deadwood.	None at this time.	
24	Blue Oak	*(Quercus douglasii)*		7	14	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
25	Blue Oak	*(Quercus douglasii)*	4,6	10	9	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
26	Interior Live Oak	*(Quercus wislizeni)*	6,8	14	25	Poor to fair	Poor to fair	Fair	Fair	Poor to fair	Fair	Past partial failure of the root system has left the lower portion of the tree lying prone on grade; out of balance to the southwest; slightly above average amount of deadwood.	None at this time.	
27	Blue Oak	*(Quercus douglasii)*		29	30	Fair	Fair	Poor to fair	Poor to fair	Poor to fair	Fair	Tree is growing on the edge of the creek bank; above average amount of deadwood; sparse foliage.	None at this time.	
28	Interior Live Oak	*(Quercus wislizeni)*		23	29	Fair	Fair	Fair	Fair	Fair	Fair	Out of balance to the southeast; slightly above average amount of deadwood.	None at this time.	
29	Interior Live Oak	*(Quercus wislizeni)*		10	16	Fair	Fair	Fair	Fair	Fair	Fair	Suppressed; out of balance to the southwest; slightly above average amount of deadwood.	None at this time.	
30	Valley Oak	*(Quercus lobata)*		29	30	Fair	Fair	Fair	Fair	Fair	Fair	Above average amount of deadwood.	None at this time.	
31	Interior Live Oak	*(Quercus wislizeni)*		14	22	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
32	Valley Oak	*(Quercus lobata)*		14	17	Obscured	Obscured	Fair	Fair	Obscured	Fair	Root collar and lower trunk covered by dense vegetation.	***Remove vegetation and reevaluate.***	
33	Blue Oak	*(Quercus douglasii)*		6	8	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
34	Blue Oak	*(Quercus douglasii)*		17	25	Fair	Fair	Fair	Fair	Fair	Fair	Measured 1.5' above grade; slightly above average amount of deadwood.	None at this time.	
35	Blue Oak	*(Quercus douglasii)*	8,13	21	22	Fair	Fair	Fair	Fair	Fair	Fair	Measured 2' above grade; forks 1' above grade; weak attachments; slightly above average amount of deadwood.	None at this time.	
36	Interior Live Oak	*(Quercus wislizeni)*		6	13	Fair	Fair	Fair	Fair	Fair	Fair	Suppressed; out of balance to the west; slightly above average amount of deadwood.	None at this time.	
37	Interior Live Oak	*(Quercus wislizeni)*		6	10	Fair	Fair	Fair	Fair	Fair	Fair	Suppressed; slightly out of balance to the north; slightly above average amount of deadwood.	None at this time.	
38	Interior Live Oak	*(Quercus wislizeni)*		15	24	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
39	Interior Live Oak	*(Quercus wislizeni)*		13	27	Fair	Fair	Fair	Fair	Fair	Fair	Measured 2' above grade; slightly above average amount of deadwood.	None at this time.	
40	Interior Live Oak	*(Quercus wislizeni)*		15	28	Fair	Fair	Fair	Fair	Fair	Fair	Out of balance to the west; slightly above average amount of deadwood.	None at this time.	
41	Valley Oak	*(Quercus lobata)*	9,11,15	35	28	Fair	Fair	Fair	Fair	Fair	Fair	Forks grade to 3.5' above grade; weak attachments; above average amount of deadwood.	None at this time.	
42	Valley Oak	*(Quercus lobata)*	4,6	10	15	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
43	Pacific Willow	*(Salix lucida)*	5,5,6,8,9	33	18	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
44	Valley Oak	*(Quercus lobata)*		6	11	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
45	Blue Oak	*(Quercus douglasii)*		7	11	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
46	Valley Oak	*(Quercus lobata)*		8	18	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
47	Valley Oak	*(Quercus lobata)*		14	24	Poor to fair	Poor to fair	Poor to fair	Fair	Poor to fair	Fair	Callusing basal lower trunk wound to 4' above grade, west side, with minor decay; out of balance to the west; slightly above average amount of deadwood.	None at this time.	
48	Interior Live Oak	*(Quercus wislizeni)*		9	17	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
49	Valley Oak	*(Quercus lobata)*		14	23	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
50	Valley Oak	*(Quercus lobata)*		11	22	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	

TREE #	COMMON NAME	SPECIES	MULTI-STEMS (inches)	TOTAL DBH (inches)	DLR (feet)	CONDITIONAL ASSESSMENT						NOTABLE CHARACTERISTICS	MAINTENANCE RECOMMENDATIONS	REMOVE
						RTCR	TRUNK	LIMBS	FOLIAGE	STRUCTURE	VIGOR			
51	Valley Oak	*(Quercus lobata)*		11	29	Fair	Fair	Fair	Fair	Fair	Fair	Out of balance to the southwest; above average amount of deadwood.	None at this time.	
52	Interior Live Oak	*(Quercus wislizeni)*		10	28	Fair	Poor to fair	Poor to fair	Fair	Poor to fair	Fair	Suppressed; out of balance to the west; slightly above average amount of deadwood.	None at this time.	
53	Blue Oak	*(Quercus douglasii)*		10	14	Fair	Fair	Fair	Fair	Fair	Fair	Measured 1.5' above grade; slightly above average amount of deadwood.	None at this time.	
54	Blue Oak	*(Quercus douglasii)*		7	12	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
55	Blue Oak	*(Quercus douglasii)*		9	12	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
56	Blue Oak	*(Quercus douglasii)*		9	15	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
57	Valley Oak	*(Quercus lobata)*		9	16	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
58	Valley Oak	*(Quercus lobata)*		15	26	Fair	Fair	Fair	Fair	Fair	Fair	Above average amount of deadwood.	None at this time.	
59	Interior Live Oak	*(Quercus wislizeni)*	10,13	23	29	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
60	Interior Live Oak	*(Quercus wislizeni)*	6,8,10	24	26	Fair	Fair	Fair	Fair	Fair	Fair	Forks at grade to 1' above grade; weak attachments; slightly above average amount of deadwood.	None at this time.	
61	Interior Live Oak	*(Quercus wislizeni)*		11	17	Fair	Fair	Fair	Fair	Fair	Fair	Out of balance to the northeast; slightly above average amount of deadwood.	None at this time.	
62	Pacific Willow	*(Salix lucida)*		25	33	Fair	Fair	Poor to fair	Fair	Poor to fair	Fair	Measured 1' above grade; above average amount of deadwood.	None at this time.	
63	Interior Live Oak	*(Quercus wislizeni)*		7	13	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
64	Valley Oak	*(Quercus lobata)*		20	23	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
65	Interior Live Oak	*(Quercus wislizeni)*	6,6	12	17	Fair	Fair	Fair	Fair	Fair	Fair	Out of balance to the east; slightly above average amount of deadwood.	None at this time.	
66	Interior Live Oak	*(Quercus wislizeni)*		8	11	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
67	Interior Live Oak	*(Quercus wislizeni)*		7	18	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
68	Interior Live Oak	*(Quercus wislizeni)*		7	24	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
69	Interior Live Oak	*(Quercus wislizeni)*	6,7,8,10	31	23	Fair	Poor to fair	Poor to fair	Fair	Poor to fair	Fair	Forks 2' above grade; weak attachments; above average amount of deadwood.	None at this time.	
70	Interior Live Oak	*(Quercus wislizeni)*		11	17	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
71	Interior Live Oak	*(Quercus wislizeni)*		7	16	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
72	Interior Live Oak	*(Quercus wislizeni)*		7	15	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
73	Interior Live Oak	*(Quercus wislizeni)*		14	25	Fair	Fair	Fair	Fair	Fair	Fair	Out of balance to the north; slightly above average amount of deadwood.	None at this time.	
74	Interior Live Oak	*(Quercus wislizeni)*		21	35	Poor	Poor to fair	Poor to fair	Fair	Poor to fair	Fair	Tree emanates from the creek and is lying prone on grade to the east for its length.	None at this time.	
75	Interior Live Oak	*(Quercus wislizeni)*		11	15	Fair	Fair	Fair	Fair	Fair	Fair	Above average amount of deadwood.	None at this time.	
76	Valley Oak	*(Quercus lobata)*		20	25	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
77	Interior Live Oak	*(Quercus wislizeni)*		15	24	Fair	Fair	Fair	Fair	Fair	Fair	Out of balance to the east; slightly above average amount of deadwood.	None at this time.	
78	Interior Live Oak	*(Quercus wislizeni)*		9	24	Fair	Fair	Fair	Fair	Fair	Fair	Out of balance to the east; slightly above average amount of deadwood.	None at this time.	
79	Interior Live Oak	*(Quercus wislizeni)*	5,6	11	25	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
80	Interior Live Oak	*(Quercus wislizeni)*	4,6,6	16	28	Fair	Fair	Fair	Fair	Fair	Fair	Tag on branch. Out of balance to the east; slightly above average amount of deadwood.	None at this time.	
81	Interior Live Oak	*(Quercus wislizeni)*	8,9	17	32	Fair	Fair	Fair	Fair	Fair	Fair	Tag on branch approximately 30' away from the base. Out of balance to the east; above average amount of deadwood.	None at this time.	
82	Valley Oak	*(Quercus lobata)*		24	29	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
83	Interior Live Oak	*(Quercus wislizeni)*	6,8	14	23	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
84	Interior Live Oak	*(Quercus wislizeni)*	5,8,9	22	23	Fair	Fair	Fair	Fair	Fair	Fair	Out of balance to the east; slightly above average amount of deadwood.	None at this time.	
85	Interior Live Oak	*(Quercus wislizeni)*		18	30	Poor to fair	Poor to fair	Fair	Fair	Poor to fair	Fair	Emanating out of the creek bank; out of balance to the east; above average amount of deadwood.	None at this time.	
86	Interior Live Oak	*(Quercus wislizeni)*		10	14	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
87	Interior Live Oak	*(Quercus wislizeni)*		9	17	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
88	Blue Oak	*(Quercus douglasii)*		6	7	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
89	Interior Live Oak	*(Quercus wislizeni)*	7,10	17	16	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
90	Interior Live Oak	*(Quercus wislizeni)*	6,7	13	15	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
91	Interior Live Oak	*(Quercus wislizeni)*		10	19	Fair	Fair	Fair	Fair	Fair	Fair	Out of balance to the east; slightly above average amount of deadwood.	None at this time.	
92	Interior Live Oak	*(Quercus wislizeni)*		8	15	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
93	Blue Oak	*(Quercus douglasii)*		31	33	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
94	Interior Live Oak	*(Quercus wislizeni)*	13,15	28	25	Fair	Fair	Fair	Fair	Fair	Fair	Forks 3' above grade; weak attachments; above average amount of deadwood.	None at this time.	
95	Interior Live Oak	*(Quercus wislizeni)*		16	21	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
96	Interior Live Oak	*(Quercus wislizeni)*	4,6	10	9	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
97	Interior Live Oak	*(Quercus wislizeni)*	11,13	24	17	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
98	Interior Live Oak	*(Quercus wislizeni)*	13,14,14	41	25	Poor to fair	Poor to fair	Fair	Fair	Poor to fair	Fair	Forks at grade; weak attachments; out of balance to the south; above average amount of deadwood.	None at this time.	
99	Interior Live Oak	*(Quercus wislizeni)*		16	22	Fair	Fair	Fair	Fair	Fair	Fair	Out of balance to the north; slightly above average amount of deadwood.	None at this time.	
100	Pacific Willow	*(Salix lucida)*	6,8,8,10	32	22	Poor to fair	Poor to fair	Poor to fair	Fair	Poor to fair	Fair	Weak attachments; above average amount of deadwood.	None at this time.	
101	Interior Live Oak	*(Quercus wislizeni)*	4,8	12	20	Fair	Fair	Fair	Fair	Fair	Fair		None at this time.	
102	Interior Live Oak	*(Quercus wislizeni)*		10	17	Fair	Fair	Fair	Fair	Fair	Fair	Slightly above average amount of deadwood.	None at this time.	
103	Interior Live Oak	*(Quercus wislizeni)*		26	28	Fair	Fair	Fair	Fair	Fair	Fair	Above average amount of deadwood.	None at this time.	Remove
104	Interior Live Oak	*(Quercus wislizeni)*	5,6,6	17	20	Fair	Fair	Fair	Fair	Fair	Fair	Suppressed; out of balance to the northeast; slightly above average amount of deadwood.	None at this time.	Remove
105	Interior Live Oak	*(Quercus wislizeni)*	14,14	28	30	Fair	Poor to fair	Poor to fair	Fair	Poor to fair	Fair	Suppressed; lying prone on grade for the length; slightly above average amount of deadwood.	None at this time.	Remove
106	Pacific Willow	*(Salix lucida)*	8,10,11	29	14	Poor	Poor	Poor	Poor	Poor	Poor	Tree is 90% dead.	***Recommend removal due to nature and extent of noted defects.***	Remove
107	Fremont Cottonwood	*(Populus fremontii)*	8,9	17	12	Fair	Fair	Fair	Fair	Fair	Fair	Weak attachments; above average amount of deadwood.	None at this time.	

TOTAL INVENTORIED TREES = 107 Trees (1,652 aggregate diameter inches)
RECOMMENDED REMOVALS = 1 Tree (29 aggregate diameter inches)
REMOVALS FOR PROJECT IMPROVEMENTS = 7 Trees (157 aggregate diameter inches)
TOTAL REMOVALS = 8 Trees (186 aggregate diameter inches)

NO.	REVISION	DATE	BY	APPRV'D

	BY	CHECK
DESIGN	SBS	RFE
DRAWN	SBS	RFE
QUANT.		

0 1 2 ORIGINAL SCALE IS IN INCHES

PROFESSIONAL ENGINEER SOMERS REGISTERED CIVIL STATE OF CALIFORNIA
PRELIMINARY NOT FOR CONSTRUCTION

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www.RFEengineering.com

BRADY SUBDIVISION
VINEYARD ROAD AND BRADY LANE,
PLACER COUNTY, CA
(APNS 473-020-002 & 013) PLN18-00234

TREE INVENTORY

Drawing — of — Sheet 2 of Total 2

10/12/2018

RFE PROJECT #17059 – VINEYARD ROAD AND BRADY LANE, PLACER COUNTY, CALIFORNIA

Z:\2017 Projects\17059 Brady Vineyard\WORKING CAD\EXHIBITS\Tree Removal Exhibit.dwg Oct 12, 2018-01:59 pm