

ATTACHMENT B



January 25, 2016

Stephen Semprevivo
720 Mill Street
Half Moon Bay, CA 94019

Re: Biological Constraints and Environmentally Sensitive Habitat Areas Assessment for APN 048-042-280 and -290 Half Moon Bay, San Mateo County, California

Dear Mr. Semprevivo,

The purpose of this letter is to inform you of the results of the biological constraints and Environmentally Sensitive Habitat Area (ESHA) assessments at two undeveloped parcels (APN 048-042-280 and 048-042-290) located at the end of 3rd Avenue, Half Moon Bay, San Mateo County, California (Figure 1). Construction of residences is proposed on the parcels (Project). The assessment encompassed both parcels and the surrounding 50 feet (Study Area) to identify any potential sensitive habitats in the vicinity. The purpose of these assessments is to comply with the San Mateo County Midcoast Local Coastal Program (LCP).

Figures are provided in Attachment A, the list of observed species from the 2015 site assessment are provided in Attachment B, and photographs depicting the current Study Area conditions are provided in Attachment C.

Survey Methods

A site visit to the Study Area was made on December 31, 2015 by WRA biologist Erich Schickenberg (wetland and plant ecologist) and reviewed by Patricia Valcarcel (wildlife biologist). Prior to the site visit, a review was conducted of background information including:

- San Mateo County Midcoast Local Coastal Program (LCP) biological resources policies
- San Mateo County Heritage Tree Ordinance
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB; CDFW 2015)
- California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2015)
- U.S. Fish and Wildlife Service (USFWS) 7.5' Quadrangle Species Lists for the Montara Mountain and Half Moon Bay quadrangles (USFWS 2015)
- CDFG publication "California's Wildlife, Volumes I-III" (Zeiner et al. 1990)
- CDFG publication "California Bird Species of Special Concern" (Shuford and Gardali 2008)
- CDFG publication "Amphibians and Reptile Species of Special Concern in California" (Jennings 1994)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)

The Study Area was traversed on foot by the WRA biologist and examined for: (a) sensitive natural communities as defined by the CDFW and LCP and, (b) for the presence, and potential to support, special-status plant and wildlife species. Vegetation within the Study Area and vicinity was also evaluated for riparian habitat criteria and/or unvegetated streams as defined by the LCP. If a special-status species was observed during the site visit, its presence is recorded and discussed further below. For some species, a site assessment visit at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies. In these cases, a species may be assumed to be present or further protocol-level special-status species surveys may be necessary. Special-status species for which further protocol-level surveys may be necessary are described further below.

Survey Results

Study Area Description

The Study Area is located at the end of 3rd Avenue in the Miramar neighborhood of Half Moon Bay. It consists of undeveloped ruderal uplands and Arroyo de en Medio, an intermittent stream. The southern portion of the Study Area is a mix of several vegetation types, including blue gum (*Eucalyptus globulus*) grove, ruderal/disturbed and arroyo willow scrub. Within the ordinary high water mark (OHWM) of Arroyo de en Medio minimal riparian vegetation is present except a small patch of arroyo willow scrub in the south. Wetland plants seen within the OHWM include water parsley (*Oenanthe sarmentosa*, OBL), California figwort (*Scrophularia californica*, FAC), dock (*Rumex pulcher*, FAC), and arroyo willow (*Salix lasiolepis*, FACW). Non-wetland plants within the OHWM include California blackberry (*Rubus ursinus*), English ivy (*Hedera helix*), veldt grass (*Ehrharta erecta*), sour clover (*Oxalis pes-carpe*), garden nasturtium (*Tropaeolum majus*), tower-of-jewels (*Echium* sp.), and cape ivy (*Delairea odorata*). Four 36-inch diameter breast height (dbh) Monterey pine trees and one 72-inch dbh Monterey cypress occur within the Study Area. The Study Area is bounded by residential development and neighborhood roads.

Vegetation Communities

Three vegetation communities are present in the Study Area: blue gum grove, ruderal/disturbed and arroyo willow scrub (Figure 2). Ruderal/disturbed habitat will be permanently and temporarily disturbed by the construction of a residence. Blue gum grove and arroyo willow occur only within the Arroyo de en Medio corridor and are not expected to be directly disturbed by the construction of a residence. Arroyo de en Medio is designated a Sensitive Habitat Area (Mid-Coast San Mateo County LCP Sensitive Habitats Map) and arroyo willow scrub is a riparian corridor and sensitive habitat by the LCP. Both ruderal/disturbed and blue gum grove are non-sensitive vegetation communities.

Non-Sensitive Vegetation Communities

The ruderal/disturbed vegetation is the dominant vegetation within the Study Area, and it encompasses approximately 0.47 acre. Non-native forbs dominate the ruderal vegetation. The ruderal uplands are dominated by weedy vegetation including ripgut brome (*Bromus diandrus*), slender oats (*Avena barbata*), garden nasturtium, tower-of-jewels, and sour clover. Several large, dead or decadent Monterey Pine (*Pinus radiata*) trees are present in this ruderal upland

area. The slopes leading down to Arroyo de en Medio creekbed are covered in veldt grass (*Ehrharta erecta*), garden nasturtium, cape ivy, poison oak (*Toxicodendron diversilobum*), and sour clover.

The blue gum grove is located along the Arroyo de en Medio at the eastern portion of the Study Area and encompassing approximately 0.10 acre. The blue gum grove forms an intermittent to dense canopy over the stream, depositing large amounts of litter within and along the banks. Blackwood acacia (*Acacia melanoxyton*) and silver wattle (*Acacia dealbata*) are also present in the canopy. The understory is sparse California blackberry, English ivy and cape ivy. One small arroyo willow and one California coffeeberry (*Frangula californica*) are present in this area.

Sensitive Vegetation Communities and Wetland and Waters Features

Approximately 0.01 acre of arroyo willow scrub is located in the southeast corner of the Study Area. Arroyo willow canopy is over 50 percent cover and considered a riparian corridor and Sensitive Habitat Area per the LCP. Understory is sparse with little to no cover, however edges around the arroyo willow scrub have an intermittent cover of garden nasturtium, California blackberry and cape ivy.

Riparian Corridor

Riparian Corridor and Buffer Zones Defined in the San Mateo County Local Coastal Program

Pursuant to the LCP, riparian corridors are defined as an association of plant and animal species containing at least 50 percent cover of the following species: red alder, jaumea, pickleweed, big leaf maple, narrow-leaf cattail, arroyo willow, broadleaf cattail, horsetail, creek dogwood, black cottonwood, and box elder. For perennial streams, the LCP requires a buffer 50 feet outward from the limit of riparian vegetation. For intermittent streams, the LCP requires a buffer 30 feet outward from the limit of riparian vegetation. Where no riparian vegetation exists, buffer zones along intermittent streams extend 30 feet from the stream midpoint as shown in Figure 2.

Within riparian corridors, the following uses are permitted: 1) education and research; 2) consumptive uses as provided for in the Fish and Game Code and Title 14 of the California Administrative Code, 3) fish and wildlife management activities, 4) trails and scenic overlooks on public lands, and 5) necessary water supply projects. Relevant permitted uses in buffer zones include 1) uses permitted in riparian corridors, 2) residential uses on existing legal building sites, set back 20 feet from the limit of riparian vegetation only if no feasible alternative exists and if no other building site on the parcel exists, 3) on parcels designated as Agriculture, Open Space, or Timber Production on the LCP Land Use Plan Map, residential structures or impervious surfaces only if no feasible alternative exists.

Riparian Corridor and Buffer Zones Applicable to the Study Area

Arroyo de en Medio drains west to the Pacific Ocean; however, it is dammed approximately 1.5 miles upstream from the Study Area. The portion of Arroyo de en Medio adjacent to the Study Area contained a small amount of running water at the time of the site visit on December 31, 2015. Based on available USGS topographic maps (USGS 1991) and aerial photographs (Google Earth 2015), Arroyo de en Medio is considered intermittent waters. Accordingly, a 30-

foot setback from edge of riparian is required. The arroyo willow identified in the Study Area is considered a riparian corridor under the LCP; however, a majority of the Arroyo de en Medio in the Study Area does not contain riparian vegetation and in these areas the buffer is extended 30-feet from the midpoint of the creek (Figure 2). For the purposes of this assessment, the limit of riparian vegetation is defined as the dripline of the arroyo willows to encompass the riparian corridor and sensitive habitat definitions in the LCP.

Special-Status Species

Special-Status Plants

Based upon a review of the resources and databases discussed previously, all special-status plant species documented in the vicinity of the Study Area were assessed. Figure 3 shows occurrences documented within 2 miles of the Study Area in the CNDDDB (CDFW 2015). No special-status plant species were observed in the Study Area. Many species requiring certain habitat types not present in the Study Area, such as serpentine endemics and plants requiring coastal bluff or scrub habitats, were determined to have no potential to occur. Of the 27 special-status plant species evaluated, all were determined to have no potential or a low potential to occur based on the high disturbance levels in and around the Study Area and/or a lack of suitable habitat components in the Study Area. Although the site visit did not constitute a protocol-level rare plant survey, no special-status plants or their habitats were observed.

San Mateo County Heritage Tree and Significant Tree Ordinances

Pursuant to the County of San Mateo Heritage Tree Ordinance (Ordinance No. 2427), "Heritage" trees may be subject to regulation under the tree ordinance pursuant to the ordinance. Several native species above certain diameter breast height (dbh) are considered "Heritage" trees and include madrone, coast live oak, and California bay laurel trees. Permits may be required by the County for the trimming or removal of trees which qualify for heritage status under the Ordinance. Under the same ordinance, "Significant" trees are subject to regulation. "Significant" trees are any species which have dbh 38 inches or greater. The trees currently within the Study Area are silver wattle, blackwood acacia, white alder (*Alnus rhombifolia*), blue gum, California coffeeberry, Monterey cypress (*Hesperocyparis macrocarpa*), arroyo willow, lollypop tree (*Myoporum laetum*), Monterey pine (*Pinus radiata*), and coast redwood (*Sequoia sempervirens*). None of these species are covered under the San Mateo County Heritage Tree Ordinance; therefore no "Heritage" trees occur in the Study Area. However, one 72-inch Monterey cypress does occur in the Study Area and is considered a "Significant" tree. Removal of this tree may require a permit.

Special-Status Wildlife

Based upon a review of the databases and literature, 39 special-status wildlife species have been documented to occur in the vicinity of the Study Area. Figure 3 shows occurrences documented within 2 miles of the Study Area in the CNDDDB (CDFW 2015). Of the 39 special-status wildlife species documented to occur in the vicinity, only one species, Allen's hummingbird (*Selasphorus sasin*), has a moderate potential to occur within the Study Area and is discussed further below. Most species do not have potential to occur because a lack of suitable habitat including no aquatic features for breeding, no serpentine habitat, no dense

understory vegetation, and barriers to dispersal. Cavities are not present in the trees within the Study Area; therefore, the Study Area is unlikely to support cavity nesting bird or bat species.

California red-legged frog (*Rana draytonii*; CRLF) is unlikely to be present because of a lack of suitable pond breeding habitat in the vicinity of the Study Area. Typical CRLF breeding habitat is characterized by deep and still or slow-moving water associated with emergent marsh and/or riparian vegetation. CRLF often seek upland refugia during the dry months, over-summering in small mammal burrows, moist leaf litter, incised stream channels, or large cracks in the bottom of dried ponds (Jennings and Hayes 1994). Adult and sub-adult CRLF may disperse between breeding habitats and nearby riparian and/or estivation habitats during the respective rainy season and summer. During such dispersals, frogs can travel up to one mile over a variety of topographic and habitat types during rain events or wet weather (Bulger et al. 2003, Fellers and Kleeman 2007, USFWS 2010); however, typical dispersal distances are less than 0.5 mile (Fellers 2005). Dispersal habitat is defined as accessible upland or riparian habitats between occupied locations within one mile of each other that allow for movement between these sites and do not contain barriers to movement (USFWS 2010). Moderate to high density urban or industrial developments, large reservoirs and heavily traveled roads without bridges or culverts are considered barriers to dispersal (USFWS 2010). Arroyo de en Medio in the vicinity of the Study Area is an intermittent creek and does not contain suitable breeding habitat based upon water levels and vegetation. The lower Arroyo de en Medio system is not known to support CRLF (CDFW 2015), and urban development is present between the Study Area and occupied habitats one mile to the northeast and southeast. Based upon the intermittent status of Arroyo de en Medio and the lack of suitable breeding habitat in the vicinity of the Study Area, it is unlikely CRLF is present within the Study Area and unlikely to use this section of Arroyo de en Medio as dispersal habitat.

San Francisco gartersnake (*Thamnophis sirtalis tetrataenia*; SFGS) is also unlikely to occur within the Study Area based upon a lack of suitable habitat in the vicinity. The preferred habitat of SFGS is a densely vegetated pond near an open hillside where they can sun themselves, feed, and find cover in rodent burrows; however, considerably less ideal habitats can be successfully occupied. Temporary ponds and other seasonal freshwater bodies are also used. Emergent and bankside vegetation such as cattails (*Typha* spp.), bulrushes (*Scirpus* spp.) and spike rushes (*Juncus* spp. and *Eleocharis* spp.) apparently are preferred and used for cover. The area between stream and pond habitats and grasslands or bank sides is used for basking, while nearby dense vegetation or water often provide escape cover (USFWS 2006). During periods of heavy rain or shortly after, SFGS may make long-distance movements of up to 1.25 miles along drainages within the dense riparian cover, and are not documented to travel over open terrain (McGinnis 2001). The nearest SFGS occurrence is over 1.5 miles to the south and dispersal barriers including development are present between the occurrence and the Study Area. It is unlikely SFGS will occur in the Study Area or vicinity because of the lack of suitable pond habitat and distance from occupied habitat.

Allen's hummingbird (*Selasphorus sasin*), USFWS Bird of Conservation Concern. Allen's hummingbird, common in many portions of its range, is a summer resident along the majority of California's coast and a year-round resident in portions of coastal southern California and the Channel Islands. Breeding occurs in association with the coastal fog belt, and typical habitats used include coastal scrub, riparian, woodland and forest edges, and eucalyptus and cypress groves (Mitchell 2000). It feeds on nectar, as well as insects and spiders. The willows and blue gum in the Study Area provide suitable nesting habitat and Allen's hummingbird is known to

nest in suburban habitats in the vicinity. Allen's hummingbird has a high potential to nest in the arroyo willow scrub and blue gum grove within the Study Area.

Impacts and Recommendations

The Study Area contains a riparian corridor and has potential to support one special-status bird species. In addition, most native bird nests are protected under the Migratory Bird Treaty Act. No rare, endangered, or unique species are anticipated to be present in the Study Area. Recommendations to protect the riparian corridor and nesting birds are described below.

Riparian Corridor

Per LCP guidelines, Arroyo de en Medio is an Environmentally Sensitive Habitat Area and setbacks are recommended to avoid impacts to the Arroyo de en Medio riparian corridor. The setback for an intermittent creek is 30 feet from edge of riparian habitat or centerline of the creek where no riparian vegetation is present. Based upon the vegetation in the Study Area, the setback is recommended to be 30 feet from the dripline of the arroyo willow habitat and from the centerline of the creek elsewhere in the Study Area. The setback is shown in Figure 2.

- It is recommended that any proposed construction or project activities remain outside of the 30-foot setback to remain in compliance with the LCP.

Special-Status and Non-Special-Status Nesting Birds

One special-status and several non-special-status bird species have potential to nest within the Study Area. Therefore, the following measures are recommended to avoid impacts to active nests of both special-status and non-special-status bird species:

- Trees or shrubs proposed for removal or trimming should be removed or trimmed during the bird non-nesting season (September 1 – February 14).
- If tree or shrub removal or Project activities are initiated during the nesting season (February 15 – August 31), a pre-construction nesting bird survey is recommended to avoid impacts to both special-status and non-special-status bird species.
 - If active nests are observed, a qualified biologist will determine suitable buffers based upon nest location and bird species. Buffers will be dependent upon species, nest location and project activities, but may range between 25-75 feet for passerine birds and up to 250 feet for raptors.

Summary

Based upon a review of databases and a site visit to the Study Area on December 31, 2015, one sensitive habitat is present within the Study Area, the Arroyo de en Medio riparian corridor. It is recommended that any proposed construction or project activities maintain a 30-foot setback from the riparian corridor as shown in Figure 2. Avoidance of the bird nesting season or pre-construction surveys for nesting birds are recommended for tree or shrub removal and initiation of Project activities. No special-status plant species have potential to be present. No rare, endangered, or unique species have potential to be present. No heritage trees are present; however, one "Significant" tree is present. If the tree is planned for removal, it may require a permit from the County of San Mateo. No further measures are recommended.

Please feel free to contact me with any questions you may have.

Sincerely,



Patricia Valcarcel
Wildlife Biologist

Enclosures:

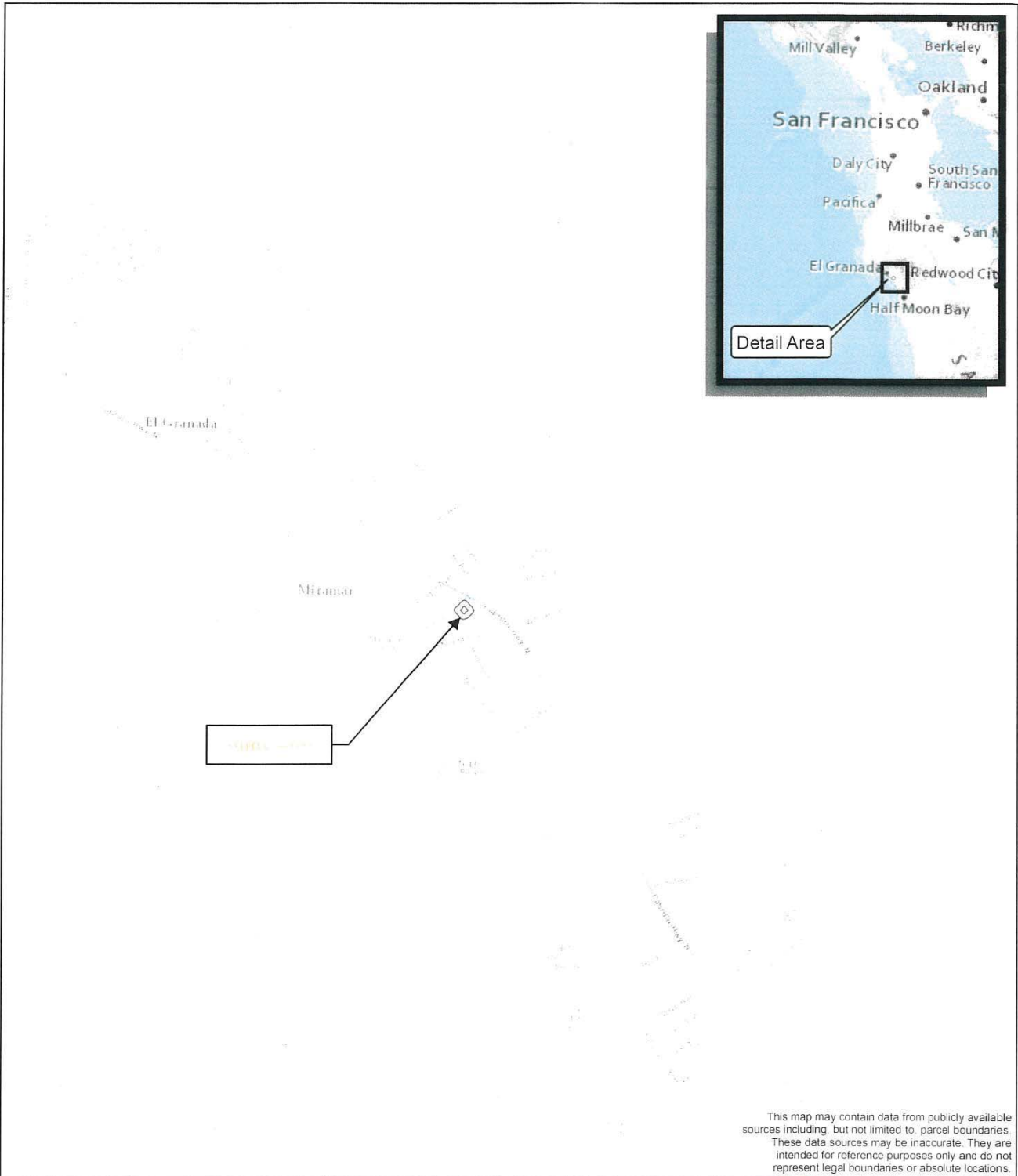
- Attachment A - Figures
- Attachment B - List of Observed Species
- Attachment C - Study Area Photographs

References

- Bulger, J. B., S. J. Norman, and R. B. Seymour. 2003. Terrestrial activity and conservation of adult California red-legged frogs (*Rana aurora draytonii*) in coastal forests and grasslands. *Biological Conservation* 110 (2003) 85–95.
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Attachment A
Figures

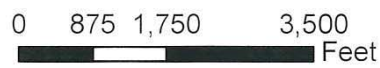


This map may contain data from publicly available sources including, but not limited to, parcel boundaries. These data sources may be inaccurate. They are intended for reference purposes only and do not represent legal boundaries or absolute locations.

Figure 1. Study Area Location Map



Third Ave Miramar ESHA Assessment
Half Moon Bay, California



Map Prepared Date: 1/20/2016
Map Prepared By: Fhourigan
Base Source: Esri Streaming - National Geographic
Data Source(s): WRA

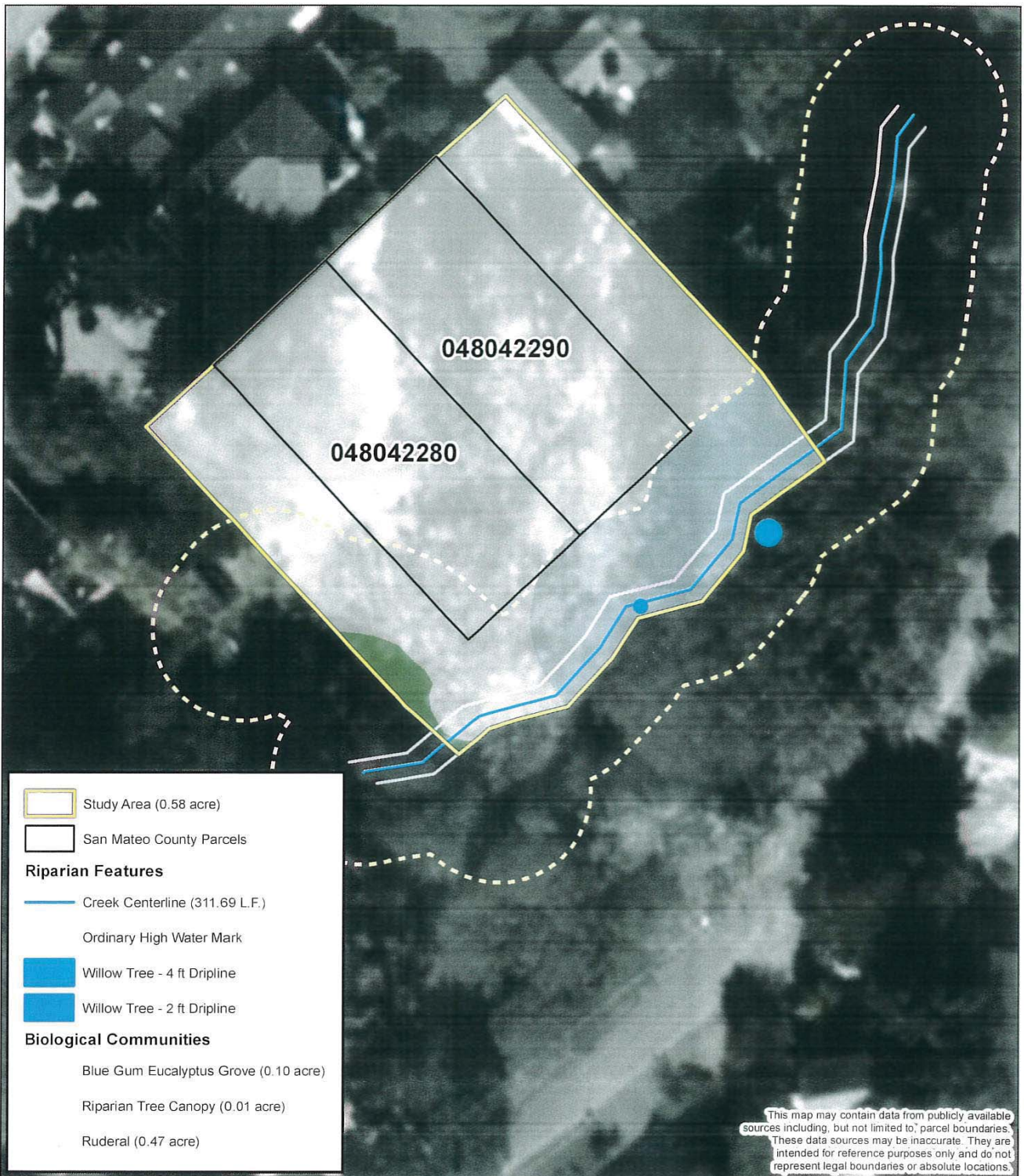


Figure 2. Biological Communities Map

Third Avenue Miramar ESHA Assessment
Half Moon Bay, California



0 10 20 40
Feet

Map Prepared Date: 1/25/2016
Map Prepared By: M.Rochelle
Base Source: Esri Streaming - Microsoft 2010
Data Source(s): WRA, San Mateo County

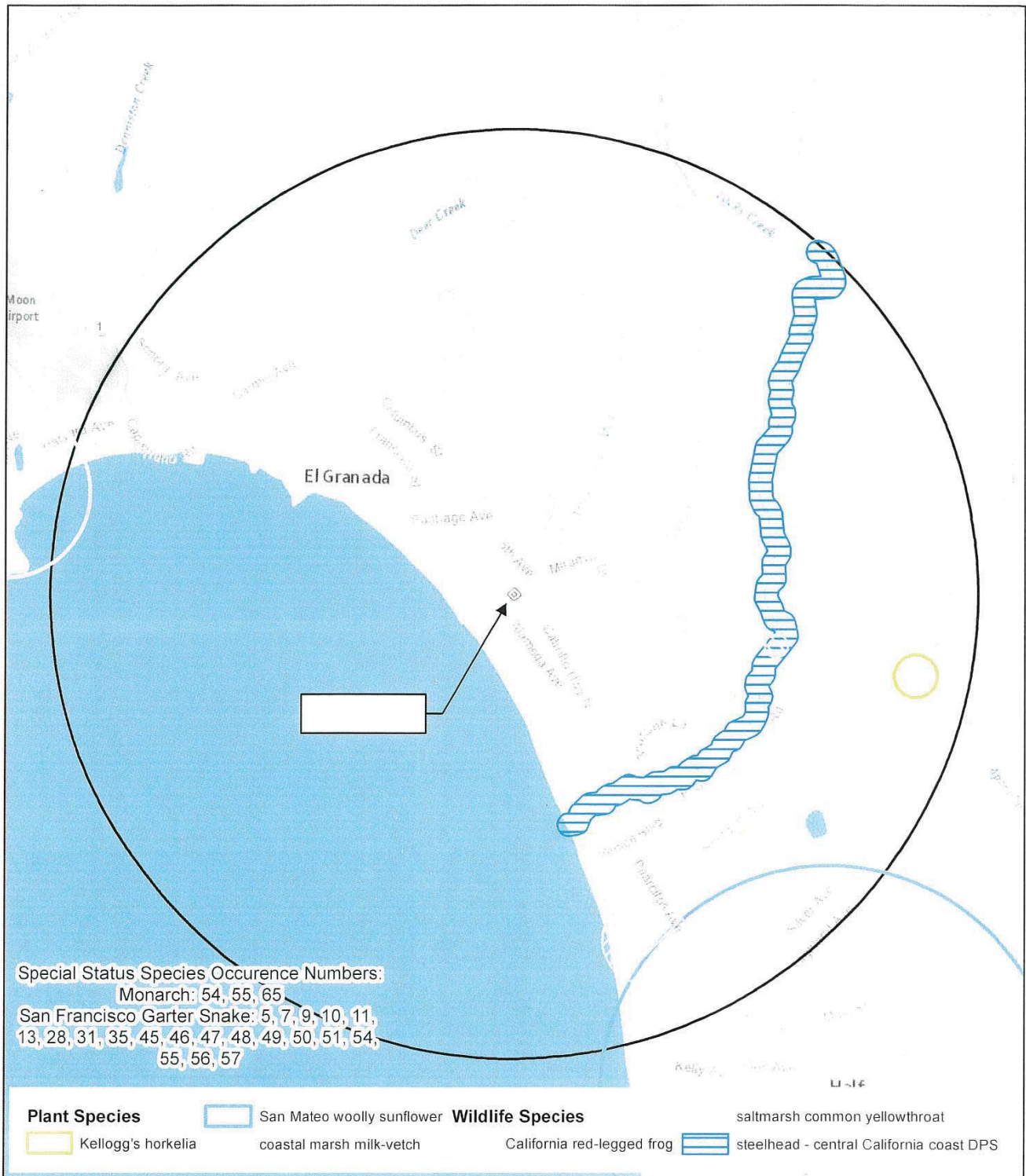
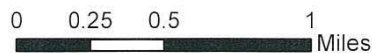


Figure 3. Special Status Plant and Wildlife Species within 2 miles of the Study Area



Third Ave Miramar ESHA Assessment
 Half Moon Bay, California



Map Prepared Date: 1/19/2016
 Map Prepared By: Flourigan
 Base Source: Esri, National Geographic
 Data Source(s): WRA, CNDDDB

Attachment B

List of Observed Species

Attachment B. Plant Species Observed in the Study Area on December 31, 2015.

Family	Scientific Name	Common Name
Adoxaceae	<i>Sambucus racemosa</i>	Red elderberry
Aizoaceae	<i>Carpobrotus chilensis</i>	Sea fig
Apiaceae	<i>Conium maculatum</i>	Poison hemlock
Apiaceae	<i>Daucus carota</i>	Carrot
Araceae	<i>Zantedeschia aethiopica</i>	Callalily
Araliaceae	<i>Hedera helix</i>	English ivy
Asteraceae	<i>Delairea odorata</i>	Cape ivy
Asteraceae	<i>Erigeron canadensis</i>	Canada horseweed
Asteraceae	<i>Eriophyllum staechadifolium</i>	Lizard tail
Betulaceae	<i>Alnus rhombifolia</i>	White alder
Boraginaceae	<i>Echium pininana</i>	Pine echium
Brassicaceae	<i>Nasturtium officinale</i>	Watercress
Brassicaceae	<i>Raphanus sativus</i>	Jointed charlock
Cornaceae	<i>Cornus sericea ssp. sericea</i>	Red osier dogwood
Cucurbitaceae	<i>Marah fabacea</i>	California man-root
Cupressaceae	<i>Hesperocyparis macrocarpa</i>	Monterey cypress
Cupressaceae	<i>Sequoia sempervirens</i>	Coast redwood
Cyperaceae	<i>Cyperus eragrostis</i>	Tall cyperus
Dryopteridaceae	<i>Polystichum munitum</i>	Western sword fern
Fabaceae	<i>Acacia dealbata</i>	Silver wattle
Fabaceae	<i>Acacia melanoxylon</i>	Blackwood acacia
Iridaceae	<i>Chasmanthe floribunda</i>	African cornflag
Myrtaceae	<i>Eucalyptus globulus</i>	Blue gum
Onagraceae	<i>Epilobium ciliatum ssp. ciliatum</i>	Willow herb
Oxalidaceae	<i>Oxalis pes-caprae</i>	Bermuda buttercup
Papaveraceae	<i>Fumaria officinalis</i>	Fumitory
Pinaceae	<i>Pinus radiata</i>	Monterey pine
Poaceae	<i>Bromus diandrus</i>	Ripgut brome
Poaceae	<i>Ehrharta erecta</i>	Upright veldt grass
Polygonaceae	<i>Persicaria hydropiper</i>	Common smartweed
Polygonaceae	<i>Rumex crispus</i>	Curly dock
Polygonaceae	<i>Rumex pulcher</i>	Fiddleleaf dock
Rhamnaceae	<i>Frangula californica</i>	California coffeeberry
Rosaceae	<i>Rubus ursinus</i>	California blackberry
Salicaceae	<i>Salix lasiolepis</i>	Arroyo willow
Scrophulariaceae	<i>Myoporum laetum</i>	Ngaio tree
Scrophulariaceae	<i>Scrophularia californica</i>	California bee plant
Solanaceae	<i>Solanum douglasii</i>	Douglas' nightshade
Tropaeolaceae	<i>Tropaeolum majus</i>	Garden nasturtium
Urticaceae	<i>Urtica dioica</i>	Stinging nettle

Attachment C
Representative Photographs

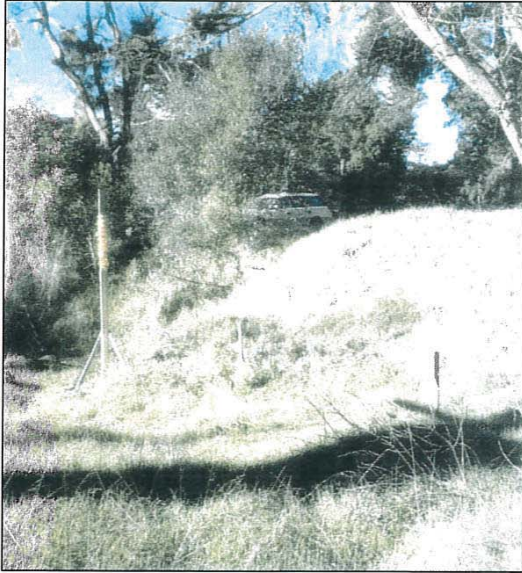


Photo 1. Photo of upland ruderal areas dominated by weedy grasses and forbs. Photo taken in westerly direction



Photo 2. Photo showing ruderal upland area. Arroyo de en Medio is on the right. Photo taken in easterly direction.



Photo 3. Photo showing arroyo willow scrub along Arroyo de en Medio on the western side of the Study Area. Photo taken in a south west direction.



Photo 4. Photo showing Arroyo de en Medio. The Study Area is on the right. Photo taken in a westerly direction.