



East Contra Costa County  
Habitat Conservation Plan  
Natural Community  
Conservation Plan

City of Brentwood  
City of Clayton  
City of Oakley  
City of Pittsburg  
Contra Costa County  
ECCC Habitat Conservancy

Template prepared by the  
ECCC Habitat Conservancy

651 Pine Street, North Wing, 4th Floor  
Martinez, CA 94533-0095  
Phone: 925/335-1290  
Fax: 925/335-1299  
www.cocohcp.org

**City/County of Contra Costa County  
Application Form and Planning Survey Report  
to Comply with and Receive Permit Coverage under  
the East Contra Costa County  
Habitat Conservation Plan and Natural Community Conservation  
Plan**

**Project Applicant Information:**

Project Name: Silver Oaks Estates  
Project Applicant's Company/Organization: Clyde Miles Construction Company, Inc.  
Contact's Name: John Peterson  
Contact's Phone: (925) 427-4473 Fax: (925) 427-4696  
Contact's Email: john@jrpeteronassoc.com  
Mailing Address: 1850 Mt. Diablo Boulevard, Suite 440  
Walnut Creek, California 94596

**Project Description:**

Lead Planner: Joanne Chiu  
Project Location: Southwest of the intersection of Oakhurst Drive and Indian Wells Way, Clayton, California (Figures 1A, 1B)  
Project APN(s) #: 118-020-029  
Number of Parcels/Units: 1  
Size of Parcel(s): 13.96  
Project Description/Purpose (Brief): Clyde Miles Construction Company, Inc (the applicant) is proposing to build seven single-family homes, 52 multi-family residential units (townhomes), a neighborhood cabana and pool, and associated infrastructure on the 13.96-acre project site located south of Oakhurst Drive, in Clayton, California.

**Biologist Information:**

Biological/Environmental Firm: Monk & Associates, Inc.  
Lead Contact: Geoff Monk  
Contact's Phone: (925) 947-4867 x201 Fax: (925) 947-1165  
Contact's Email: geoff@monkassociates.com  
Mailing Address: 1136 Saranap Ave., Ste. Q  
Walnut Creek, CA 94595

# East Contra Costa County HCP/NCCP Planning Survey Report for Silver Oaks Estates City of Clayton

---

## I. Project Overview

**Project proponent:** Clyde Miles Construction, Inc.

**Project Name:** Silver Oaks Estates

**Application Submittal Date:** March 1, 2013 (Resubmitted August 15, 2014)

**Jurisdiction:**  Contra Costa County  Participating Special Entity<sup>1</sup>  
 City of Oakley  
 City of Pittsburg  
 City of Clayton  
 City of Brentwood

**Check appropriate Development Fee Zone(s):**  Zone I  Zone IV  
 Zone II  
 Zone III

See Figure 9-1 of the Final HCP/NCCP for a generalized development fee zone map. Detailed development fee zone maps by jurisdiction are available from the jurisdiction or at [www.cocohcp.org](http://www.cocohcp.org).

**Total Parcel Acreage:** 13.96

**Acreage of land to be permanently disturbed<sup>2</sup>:** 7.38

**Acreage of land to be temporarily disturbed<sup>3</sup>:** 0.75

---

<sup>1</sup> *Participating Special Entities* are organizations not subject to the authority of a local jurisdiction. Such organizations may include school districts, water districts, irrigation districts, transportation agencies, local park districts, geologic hazard abatement districts, or other utilities or special districts that own land or provide public services.

<sup>2</sup> *Acreage of land permanently disturbed* is broadly defined in the HCP/NCCP to include all areas removed from an undeveloped or habitat-providing state and includes land in the same parcel or project that is not developed, graded, physically altered, or directly affected in any way but is isolated from natural areas by the covered activity. Unless such undeveloped land is dedicated to the Preserve System or is a deed-restricted creek setback, the development fee will apply. The development fees were calculated with the assumption that all undeveloped areas within a parcel (e.g., fragments of undisturbed open space within a residential development) would be charged a fee; the fee per acre would have been higher had this assumption not been made. See Chapter 9 of the HCP/NCCP for details.

<sup>3</sup> *Acreage of land temporarily disturbed* is broadly defined in the HCP/NCCP as any impact on vegetation or habitat that does not result in permanent habitat removal (i.e. vegetation can eventually recover).

## Project Description

**Concisely and completely describe the project and location.** Reference and attach a project vicinity map (Figure 1) and the project site plans (Figure 2) for the proposed project. Include all activities proposed for site, including those disturbing ground (roads, bridges, outfalls, runoff treatment facilities, parks, trails, etc.) to ensure the entire project is covered by the HCP/NCCP permit. Also include proposed construction dates. Reference a City/County application number for the project where additional project details can be found.

**City/County Application Number:**

DP 01-10

**Anticipated Construction Date:**

Early 2015

**Project Description:**

Silver Oak Estates (the project site) is a 13.96-acre project site located in the City of Clayton, California (Figures 1A and 1B). The project site is bordered to the north by Oakhurst Drive, while Mount Diablo Creek traverses the southern and western boundaries. Beyond Oakhurst Drive to the north and Mount Diablo Creek to the south, are existing single-family home developments. Oakhurst Country Club Golf Course is immediately east of the project site. Lydia Lane Community Park is located near the southwestern border of the project site (Figure 1A).

The applicant proposes to develop a small residential community consisting of seven single-family detached homes, 52 multi-family residential unity townhomes, a community pool and cabana, and associated infrastructure, such as roads, sidewalks, lighting, landscaping, and utilities. A 50-foot (and greater) conservation area will separate the top-of-bank of Mount Diablo Creek from the edge of development associated with the Silver Oaks Estates project. The northern/eastern limits of the conservation area will be fenced with vinyl-clad chain-link fencing that is four-feet in height to protect the conservation area from outside influences.

## II. Existing Conditions and Impacts

### Land Cover Types

In completing the checklist in Table 1, click in the appropriate fields and type the relevant information. Please calculate acres of terrestrial land cover types to nearest tenth of an acre. Calculate the areas of all jurisdictional wetlands and waters land cover types to the nearest hundredth of an acre. If the field is not applicable, please enter N/A. The sum of the acreages in the *Acreage of land to be "permanently disturbed" and "temporarily disturbed" by project* column should equal the total impact acreage listed above.

Land cover types and habitat elements identified with an <sup>(a)</sup> in Table 1 require identification and mapping of habitat elements for selected covered wildlife species. In Table 2a and 2b

below, check the land cover types and habitat elements found in the project area and describe the results. Insert a map of all land cover types present on-site and other relevant features overlaid on an aerial photo below as Figure 3.

Table 1. Land Cover Types on the Project Site as Determined in the Field and Shown in Figure 3.

Land Cover Type (acres, except where noted)	Acreage of Land to be "Permanently Disturbed" by Project <sup>b</sup>	Acreage of Land to be "Temporarily Disturbed" by Project <sup>b</sup>	Acreage of Land Proposed for HCP/NCCP Dedication on the Parcel <sup>c</sup>	
			Stream Setback	Preserve System Dedication
<b>Grassland<sup>a</sup></b>				
<input type="checkbox"/> Annual grassland				
<input type="checkbox"/> Alkali grassland				
<input checked="" type="checkbox"/> Ruderal	2.75	0.28	0.86	
<input type="checkbox"/> <b>Chaparral and scrub</b>				
<input type="checkbox"/> <b>Oak savanna<sup>a</sup></b>				
<input checked="" type="checkbox"/> <b>Oak woodland</b>	1.35	0.03	0.15	
<b>Jurisdictional wetlands and waters</b>				
<input checked="" type="checkbox"/> Riparian woodland/scrub	0.27	0.13	5.00	
<input type="checkbox"/> Permanent wetland <sup>a</sup>				
<input type="checkbox"/> Seasonal wetland <sup>a</sup>				
<input type="checkbox"/> Alkali wetland <sup>a</sup>				
<input type="checkbox"/> Aquatic (Reservoir/Open Water) <sup>a</sup>				
<input type="checkbox"/> Slough/Channel <sup>a</sup>				
<input type="checkbox"/> Pond <sup>a</sup>				
<input checked="" type="checkbox"/> Stream (acres) <sup>a, d</sup>		0.03	2.78	
<input checked="" type="checkbox"/> Total stream length (feet) <sup>a, d</sup>		20		
Stream length by width category				
<input checked="" type="checkbox"/> ≤ 25 feet wide		20		
<input type="checkbox"/> > 25 feet wide				
Stream length by type and order <sup>e</sup>				
<input type="checkbox"/> Perennial				
<input type="checkbox"/> Intermittent				
<input checked="" type="checkbox"/> Ephemeral, 3 <sup>rd</sup> or higher order		20		
<input type="checkbox"/> Ephemeral, 1 <sup>st</sup> or 2 <sup>nd</sup> order				
<b>Irrigated agriculture<sup>a</sup></b>				

Land Cover Type (acres, except where noted)	Acreage of Land to be "Permanently Disturbed" by Project <sup>b</sup>	Acreage of Land to be "Temporarily Disturbed" by Project <sup>b</sup>	Acreage of Land Proposed for HCP/NCCP Dedication on the Parcel <sup>c</sup>	
			Stream Setback	Preserve System Dedication
<input type="checkbox"/> Cropland				
<input type="checkbox"/> Pasture (Pastoral)				
<input type="checkbox"/> Orchard				
<input type="checkbox"/> Vineyard				
<b>Other</b>				
<input type="checkbox"/> Nonnative woodland				
<input type="checkbox"/> Wind turbines				
<b>Developed</b>				
<input checked="" type="checkbox"/> Urban	3.01	0.31	0.59	
<input type="checkbox"/> Aqueduct				
<input type="checkbox"/> Turf				
<input type="checkbox"/> Landfill				
<b>Uncommon Vegetation Types (subtypes of above land cover types)</b>				
<input type="checkbox"/> Purple needlegrass grassland				
<input type="checkbox"/> Wildrye grassland				
<input type="checkbox"/> Wildflower fields				
<input type="checkbox"/> Squirreltail grassland				
<input type="checkbox"/> One-sided bluegrass grassland				
<input type="checkbox"/> Serpentine grassland				
<input type="checkbox"/> Saltgrass grassland (= alkali grassland)				
<input type="checkbox"/> Alkali sacaton bunchgrass grassland				
<input type="checkbox"/> Other uncommon vegetation types (please describe)				
<b>Uncommon Landscape Features or Habitat Elements</b>				
<input type="checkbox"/> Rock outcrop				
<input type="checkbox"/> Cave <sup>a</sup>				
<input type="checkbox"/> Springs/seeps				
<input type="checkbox"/> Scalds				
<input type="checkbox"/> Sand deposits				
<input type="checkbox"/> Mines <sup>a</sup>				
<input checked="" type="checkbox"/> Buildings (bat roosts) <sup>a</sup>	—	—		—

Land Cover Type (acres, except where noted)	Acreage of Land to be "Permanently Disturbed" by Project <sup>b</sup>	Acreage of Land to be "Temporarily Disturbed" by Project <sup>b</sup>	Acreage of Land Proposed for HCP/NCCP Dedication on the Parcel <sup>c</sup>	
			Stream Setback	Preserve System Dedication
<input checked="" type="checkbox"/> Potential nest sites (trees or cliffs) <sup>a</sup>	—	—		—
<b>Total Impacted Acres</b>	<b>7.38</b>	<b>0.75</b>	<b>6.60</b>	

<sup>a</sup> Designates habitat elements that may trigger specific survey requirements and/or best management practices for key covered wildlife species. See Chapter 6 in the HCP/NCCP for details.

<sup>b</sup> See Section 9.3.1 of the HCP/NCCP for a definition of "permanently disturbed" and "temporarily disturbed." In nearly all cases, all land in the subject parcel is considered permanently disturbed.

<sup>c</sup> Dedication of land in lieu of fees must be approved by the local agency and the Implementing Entity before they can be credited toward HCP/NCCP fees. See Section 8.6.7 on page 8-32 of the Plan for details on this provision. Stream setback requirements are described in Conservation Measure 1.7 in Section 6.4.1 and in Table 6-2.

<sup>d</sup> Specific requirements on streams are discussed in detail in the HCP/NCCP. Stream setback requirements pertaining to stream type and order can be found in Table 6-2. Impact fees and boundary determination methods pertaining to stream width can be found in Table 9-5. Restoration/creation requirements in lieu of fees depend on stream type and can be found in Tables 5-16 and 5-17.

<sup>e</sup> See glossary (Appendix A) for definition of stream type and order.

*It is important to note that, due to the proposed permanent and temporary impacts within the stream setback, the "Total Impacted Acreages" above do not add up to the total site acreage. All of the temporary impacts will occur within the 6.6-acre setback. In addition, of the 7.38 acres of permanent impacts on the project site, 0.02 acre will occur within the 6.6 acre setback. In other words, the project site is comprised of the 6.6-acre stream setback and the 7.36-acre development footprint.*

### Field-Verified Land Cover Map

**Insert field-verified land cover map.** The map should contain all land cover types present on-site. The map should be representative of an aerial photo. Identify all pages of the field-verified land cover map as **(Figure 3a)**. **Please attach representative photos of the project site (Figure 3b).**

Figure 3A depicts the field-verified land cover map for the Silver Oaks Estates project site. Photographs of the project site are attached as Figure 3B. Below we provide a description of the plant communities/land cover types present on the project site.

### Plant Communities/Land Cover Types

The project site was formerly occupied by two ranchettes; one home is currently occupied and the other is in disrepair and partially fallen/burned down. In addition, there are several out-buildings, livestock paddocks, and fences on the project site.

The project site supports two native plant communities and two anthropogenic (that is, human-established) communities/land use types. The native plant communities are oak woodland (1.50 acres) and riparian woodland (5.27 acres). Within the riparian woodland is Mount Diablo Creek, which encompasses approximately 2.78 acres between the tops

of bank (TOBs). The anthropogenic communities are categorized as urban (3.60 acres) and ruderal (3.59 acres). A brief description of each is provided below.

Oak woodland on the project site is limited to two linear strips of vegetation dominated by mature valley oak (*Quercus lobata*) and coast live oak (*Quercus agrifolia*) trees. Due to the project site's long history of human use, this plant community has been modified by the introduction of ornamental tree species such as deodar cedar (*Cedrus deodara*), incense cedar (*Calocedrus decurrens*), and tobira (*Pittosporum tobira*). Native shrubs found in this community onsite are toyon (*Heteromeles arbutifolia*) and holly leaf redberry (*Rhamnus illicifolia*). There is no herbaceous layer under the shrubby understory; a dense layer of leaf litter lies on the ground underneath the canopy.

The riparian woodland community runs along Mt. Diablo Creek on the south side of the project site. This woodland community is dominated by valley oaks and California buckeye (*Aesculus californica*) trees. Almond (*Prunus dulcis*) trees, black walnut (*Juglans hindsii*) trees, and Oregon ash (*Fraxinus latifolia*) are also present along the creek. Toyon and Himalayan blackberry (*Rubus armeniacus*) are present along the banks. The understory is herbaceous.

The anthropogenic communities/land use types include a very small area of ruderal vegetation in the project site's northwestern corner that is composed of non-native grasses and forbs (broad-leaved plants) such as rip-gut brome (*Bromus diandrus*), field hedge parsley (*Torilis arvensis*), Bermuda buttercup (*Oxalis pes-caprae*), broad-leaf filaree (*Erodium botrys*), dead nettle (*Lamium amplexicaule*), and Shepard's purse (*Capsella bursa-pastoris*). Former livestock paddocks/fenced enclosures are located at the northern and eastern extents of the project site. These paddocks are dominated by non-native grasses, thistles, and mustards (*Brassica nigra*, for example). Finally, a large portion of the project site consists of barren ground in areas that were formerly a swimming pool, parking areas, and possibly orchard as remnant ornamental trees are also present in these areas (see Figure 3A, the land habitat types map).

### **Jurisdictional Wetlands and Waters**

Jurisdictional wetlands and waters are defined on pages 1-18 and 1-19 of the Final HCP/NCCP as the following land cover types: permanent wetland, seasonal wetland, alkali wetland, aquatic, pond, slough/channel, and stream. (It should be noted that definitions of these features differ for state and federal jurisdictions.) If you have identified any of these land cover types to be present on the project site in Table 1, complete the section below.

Indicate agency that certified the wetland delineation:

USACE,  RWQCB, or  the ECCC Habitat Conservancy.

Wetland delineation is attached (Jurisdictional Determination)

**Provide any additional information on Impacts to Jurisdictional Wetland and Waters below.**

A wetland delineation has not been completed for the project site. M&A biologists are trained wetland biologists who conducted site assessment surveys of the project site in 2010, 2012, and in 2013. No waters of the U.S./State, other than Mount Diablo Creek, occur on the project site. This creek is part of a deed-restricted conservation area that will be preserved in perpetuity as part of the proposed project. The conservation area includes the bed, bank, and channel of Mount Diablo Creek, along with its riparian vegetation and a 50-foot (and greater) setback from the top-of-bank of the creek channel.

Site drainage associated with the proposed project will be directed towards Mount Diablo Creek via an 18-inch high density polyethylene (HDPE) pipe. An outfall structure will be constructed above the ordinary high water mark of Mount Diablo Creek where storm water would be discharged from the project site. The outfall design keeps rip-rap outside of the bed and channel (i.e., above the ordinary high water marks) of Mount Diablo Creek while erosion control would be built into the outfall design. As water exits the 18-inch HDPE stormdrain pipe, it would enter the outfall structure with a 250 cubic-foot (approximately) energy-dissipation area. This energy-dissipation area would be essentially a concrete box that is filled with CalTrans "light-class" rip-rap. The rip-rap would dissipate the energy of the stormwater outflow, dramatically reducing the velocity of water leaving the stormdrain system. Once the water enters the energy-dissipater, it would trickle through the rip-rap and into an approximately 10-foot long gravel-filled energy-dissipater, which would slow the water's velocity even further. From the gravel-filled dissipater, water would trickle onto the banks of Mount Diablo Creek, well-above the ordinary high watermark (OHWM), and into the low-flow channel of Mount Diablo Creek at a low-enough velocity as to not cause erosion of the bank, bed, or channel.

The original plan for the sewer line installation included tunneling under Mount Diablo Creek via Jack and Bore, which would avoid impacts to both the Stream Setback and Mount Diablo Creek. However, since the original PSR was submitted in March 2013, the feasibility of this method has been reevaluated and the applicant is now proposing installation of the sewer line via open cut trenching. The approximately 10-foot wide trench would traverse approximately 140 feet of the riparian corridor associated with Mount Diablo Creek, commencing at the proposed Oak Drive to the north of the creek, and terminating at the existing sanitary sewer manhole on the south side of the Creek. The original PSR submitted for the East Contra Costa County HCP/NCCP did not discuss impacts to Mount Diablo Creek or the Stream Setback associated with open-cut trenching for the sewer line. Construction associated with an open cut trench would result in temporary impacts to approximately 0.05 acre (2,191 square feet) of the Stream Setback (the conservation area), 0.03 acre (1,471 square feet) of which is within Mount Diablo Creek (below TOB).

## Species-Specific Planning Survey Requirements

Based on the land cover types found on-site and identified in Table 1, check the applicable boxes in Table 2a then provide the results of the planning surveys below. In Table 3 check corresponding preconstruction survey or notification requirements that are triggered by the presence of particular landcover types or species habitat elements as identified in Table 2a. The species-specific planning survey requirements are described in more detail in Section 6.4.3 of the HCP/NCCP.

**Table 2a. Species-Specific Planning Survey Requirements Triggered by Land Cover Types and Habitat Elements in the project area based on Chapter 6 of the Final HCP/NCCP.**

Land Cover Type in the project area?	Species	Habitat Element in the project area?	Planning Survey Requirement
<input checked="" type="checkbox"/> Grasslands, oak savanna, agriculture, ruderal	San Joaquin kit fox	Assumed if within modeled range of species	Identify and map potential breeding and denning habitat and potential dens if within modeled range of species (see Appendix D of HCP/NCCP).
	Western burrowing owl	Assumed	Identify and map potential breeding habitat.
<input checked="" type="checkbox"/> Aquatic (ponds, wetlands, streams, slough, channels, & marshes)	Giant garter snake	<input type="checkbox"/> Aquatic habitat accessible from San Joaquin River	Identify and map potential habitat.
	California tiger salamander	<input type="checkbox"/> Ponds and wetlands in grassland, oak savanna, oak woodland <input type="checkbox"/> Vernal pools <input type="checkbox"/> Reservoirs <input type="checkbox"/> Small lakes	Identify and map potential breeding habitat. Document habitat quality and features. Provide Implementing Entity with photo-documentation and report.
	California red-legged frog	<input checked="" type="checkbox"/> Slow-moving streams, ponds, and wetlands	Identify and map potential breeding habitat. Document habitat quality and features. Provide Implementing Entity with photo-documentation and report.
<input type="checkbox"/> Seasonal wetlands	Covered shrimp	<input type="checkbox"/> Vernal pools <input type="checkbox"/> Sandstone rock outcrops <input type="checkbox"/> Sandstone depressions	Identify and map potential breeding habitat.

Land Cover Type in the project area?	Species	Habitat Element in the project area?	Planning Survey Requirement
Any	Townsend's big-eared bat	<input type="checkbox"/> Rock formations with caves <input type="checkbox"/> Mines <input checked="" type="checkbox"/> Abandoned buildings outside urban areas	Map and document potential breeding or roosting habitat.
	Swainson's hawk	<input type="checkbox"/> Potential nest sites (trees within species' range usually below 200')	Inspect large trees for presence of nest sites.
	Golden eagle	<input type="checkbox"/> Potential nest sites (secluded cliffs with overhanging ledges; large trees)	Document and map potential nests.

<sup>a</sup> Vernal pool fairy shrimp, vernal pool tadpole shrimp, longhorn fairy shrimp, and midvalley fairy shrimp.

## Results of Species-Specific Planning Surveys Required in Table 2a

**1. Describe the results of the planning survey conducted as required in Table 2a.** Planning surveys will assess the location, quantity, and quality of suitable habitat for specified covered wildlife species on the project site. Covered species are assumed to occupy suitable habitat in impact areas and mitigation is based on assumption of take.

In accordance with the HCP/NCCP, a total of four covered wildlife species have the potential to occur within the Silver Oaks Estates project footprint given the habitat types present: San Joaquin kit fox (*Vulpes macrotis mutica*), Townsend's big-eared bat (*Corynorhinus townsendii* ssp. *townsendii*), California red-legged frog (*Rana draytonii*), and western burrowing owl (*Athene cunicularia*). Although California tiger salamander (*Ambystoma californiense*) (CTS) is known to occur in the vicinity of the project site, the project site itself does not provide suitable habitat for this species. Further, the isolated location of the project site, surrounded by high-density residential developments, precludes use of the site by California tiger salamander.

It should be noted that the project footprint has a history of extensive disturbance dating to circa 1900. These disturbances include horse ranching, and the construction of numerous homes, barns, outbuildings, water towers, and livestock paddocks. This history of land conversion on the project site has also created a condition in which herbaceous and/or understory vegetation is largely absent from the property (much of the ground surface is graveled and barren). The only areas that support herbaceous and/or understory vegetation are those areas identified on Figure 3A as ruderal or riparian. The ruderal areas consist almost exclusively of non-native vegetation with a history of heavy grazing pressure, while the riparian area understory is only sparsely vegetated (see the Plant Communities description). Thus, these land-use histories, combined with the project site's location (it is completely surrounded by dense urban development and heavily-trafficked city streets), have rendered the project site inhospitable to the covered wildlife species identified above. In fact, the only wildlife

species that have been detected on the project site during site assessment visits conducted by M&A in 2010, 2012, and 2013 are those species that are well-adapted to humans and extensive urban development such as oak titmouse (*Baeolophus inornatus*), acorn woodpecker (*Melanerpes formicivorus*), dark-eyed junco (*Junco hyemalis*), western scrub-jay (*Aphelocoma californica*), Anna's hummingbird (*Calypte anna*), chestnut-backed chickadee (*Poecile rufescens*), Nuttall's woodpecker (*Picoides nuttallii*), northern flicker (*Colaptes auratus*), American crow (*Corvus brachyrhynchos*), turkey vulture (*Cathartes aura*), California ground squirrel (*Spermophilus beecheyi*), fox squirrel (*Sciurus niger*), and raccoon (*Procyon lotor*).

In addition to the history of disturbance on the project site, the four covered species would be unlikely to occur within the Silver Oaks Estates project footprint owing to a general lack of suitable habitat. Further explanation is provided below.

**San Joaquin kit fox:** Because the patch of ruderal habitat on the project site is small (0.31-acre) and surrounded by dense urban development, the project site is both inhospitable and inaccessible to San Joaquin kit fox. Similarly, no potential San Joaquin kit fox dens have been observed on the project site during numerous site visits conducted by M&A during 2010, 2012 and 2013. Thus, San Joaquin kit fox are extremely unlikely to be affected by the proposed project.

**Western burrowing owl:** The closest known record for western burrowing owl to the project site is located 2.8 miles to the north (CNDDDB records). Western burrowing owls are typically found in vast, open spaces with ample viewsheds from which potential predators can be observed at a distance. Because such open spaces on the project are small (about 1/3 of an acre), and are surrounded by trees, fences, buildings, and rubbish piles, the project site does not support suitable western burrowing owl habitat. Furthermore, no western burrowing owls, or suitable western burrowing owl burrows have been observed on the proposed project site during M&A's numerous site visits conducted in 2010, 2012, and 2013. Thus, western burrowing owls are extremely unlikely to be affected by the proposed project.

**California red-legged frog:** There are no records for the California red-legged frog on or near the project site. The closest known record is 1.8 miles away in a stock pond (CNDDDB records). While Mt. Diablo Creek running along the project site's southern and western borders may provide seasonal migration habitat, this reach of the creek supports shallow, swift water for most of the year. During storm events, flash-flows in the creek can be significant, which effectively "flush" the creek. Thus, Mount Diablo Creek does not provide suitable breeding, egg-laying, or larval development habitat for California red-legged frog.

Additionally, given the barren nature of much of the project site, along with the lack of upland refugia (burrows), and the extensive history of disturbance at the

project site, the likelihood of California red-legged frogs using this project site as over-summering habitat is quite low. Regardless, although the bed, bank, and channel of Mt. Diablo Creek, along with a 50-foot (and greater) setback from the top-of-bank, are being preserved in perpetuity as part of the proposed project, a small portion of the creek (0.03 acre, 1,471 square feet) will be temporarily impacted from construction associated with open cut trenching to connect the sewer line from the development to the existing sewerline that occurs immediately south of the creek. Thus, suitable California red-legged frog habitat will be impacted by the proposed project.

**Townsend’s big-eared bat:** While there are numerous abandoned buildings within the project site footprint, none of these buildings provide suitable bat roosting habitat. The buildings are all very open and drafty, and the spaces within the buildings are all well-lit. Furthermore, during M&A’s multiple visits to the project site, no evidence of bat roosting has been observed. That is, no guano has been detected on the ground, nor have building “scars” been seen. (Building “scars” are areas of buildings where bats enter and exit; these areas are typically marred with dirt, guano, and oils.) Thus, Townsend’s big-eared bats are extremely unlikely to be affected by the proposed project.

**2. Reference and attach the Planning Survey Species Habitat Maps as required in Table 2a**

See Figures 3A and 3B, attached.

**Covered and No-Take Plants**

On suitable land cover types, surveys for covered and no-take plants must be conducted using approved CDFW/USFWS methods during the appropriate season to identify any covered or no-take plant species that may occur on the site (see page 6-9 of the Final HCP/NCCP). Based on the land cover types found in the project area and identified in Table 1, check the applicable boxes in Table 2b and provide a summary of survey results as required below. If any no-take plants are found in the project area, the provisions of Conservation Measure 1.11 must be followed (see *Avoidance and Minimization Measures* below).

**Table 2b. Covered and No-Take Plant Species, Typical Habitat Conditions, and Typical Blooming Periods**

Land Cover Type in the project area?	Plant Species	Covered (C) or No-Take (N)?	Typical Habitat or Physical Conditions, if Known	Typical Blooming Period <sup>a</sup>
<input type="checkbox"/> Oak savanna	Diablo Helianthella ( <i>Helianthella castanea</i> )	C	Elevation above 650 feet <sup>b</sup>	Mar–Jun
	Mount Diablo fairy-lantern ( <i>Calochortus pulchellus</i> )	C	Elevation between 650 and 2,600 feet <sup>b</sup>	Apr–Jun

Land Cover Type in the project area?	Plant Species	Covered (C) or No-Take (N)?	Typical Habitat or Physical Conditions, if Known	Typical Blooming Period <sup>a</sup>
<input checked="" type="checkbox"/> Oak woodland	Brewer's dwarf flax ( <i>Hesperolinon breweri</i> )	C		May–Jul
	Diablo Helianthella ( <i>Helianthella castanea</i> )	C	Elevation above 650 feet <sup>b</sup>	Mar–Jun
	Mount Diablo fairy-lantern ( <i>Calochortus pulchellus</i> )	C	Elevation between 650 and 2,600 feet <sup>b</sup>	Apr–Jun
	Showy madia ( <i>Madia radiata</i> )	C		Mar–May
<input type="checkbox"/> Chaparral and scrub	Brewer's dwarf flax ( <i>Hesperolinon breweri</i> )	C		May–Jul
	Diablo Helianthella ( <i>Helianthella castanea</i> )	C	Elevation above 650 feet <sup>b</sup>	Mar–Jun
	Mount Diablo buckwheat ( <i>Eriogonum truncatum</i> )	N		Apr–Sep; uncommonly Nov–Dec.
	Mount Diablo fairy-lantern ( <i>Calochortus pulchellus</i> )	C	Elevation between 650 and 2,600 feet <sup>b</sup>	Apr–Jun
	Mount Diablo Manzanita ( <i>Arctostaphylos auriculata</i> )	C	Elevation between 700 and 1,860 feet; restricted to the eastern and northern flanks of Mt. Diablo <sup>b</sup>	Jan–Mar
<input type="checkbox"/> Alkali grassland	Brittlescale ( <i>Atriplex depressa</i> )	C	Restricted to soils of the Pescadero or Solano soil series; generally found in southeastern region of plan area <sup>b</sup>	May–Oct
	Caper-fruited tropidocarpum ( <i>Tropidocarpum capparideum</i> )	N		Mar–Apr
	Contra Costa goldfields ( <i>Lasthenia conjugens</i> )	N	Generally found in vernal pools	Mar–Jun
	Recurved larkspur ( <i>Delphinium recurvatum</i> )	C		Mar–Jun
	San Joaquin spearscale ( <i>Atriplex joaquiniana</i> )	C		Apr–Oct
<input type="checkbox"/> Alkali wetland	Alkali milkvetch ( <i>Astragalus tener</i> ssp. <i>tener</i> )	N		Mar–Jun

Land Cover Type in the project area?	Plant Species	Covered (C) or No-Take (N)?	Typical Habitat or Physical Conditions, if Known	Typical Blooming Period <sup>a</sup>
	Brittlescale ( <i>Atriplex depressa</i> )	C	Restricted to soils of the Pescadero or Solano soil series; generally found in southeastern region of plan area <sup>b</sup>	May–Oct
	San Joaquin spearscale ( <i>Atriplex joaquiniana</i> )	C		Apr–Oct
<input type="checkbox"/> Annual grassland	Alkali milkvetch ( <i>Astragalus tener</i> ssp. <i>tener</i> )	N		Mar–Jun
	Big tarplant ( <i>Blepharizonia plumosa</i> )	C	Elevation below 1500 feet <sup>b</sup>	Jul–Oct
	Brewer's dwarf flax ( <i>Hesperolinon breweri</i> )	C	Restricted to grassland areas within a 500+ buffer from oak woodland and chaparral/scrub <sup>b</sup>	May–Jul
	Contra Costa goldfields ( <i>Lasthenia conjugens</i> )	N	Generally found in vernal pools	Mar–Jun
	Diamond-petaled poppy ( <i>Eschscholzia rhombipetala</i> )	N		Mar–Apr
	Large-flowered fiddleneck ( <i>Amsinckia grandiflora</i> )	N		Apr–May
	Mount Diablo buckwheat ( <i>Eriogonum truncatum</i> )	N		Apr–Sep; uncommonly Nov–Dec
	Mount Diablo fairy-lantern ( <i>Calochortus pulchellus</i> )	C	Elevation between 650 and 2,600 <sup>b</sup>	Apr–Jun
	Round-leaved filaree ( <i>California macrophylla</i> ) <sup>1</sup>	C		Mar–May
	Showy madia ( <i>Madia radiata</i> )	C		Mar–May
<input type="checkbox"/> Seasonal wetland	Adobe navarretia ( <i>Navarretia nigelliformis</i> ssp. <i>nigelliformis</i> )	C	Generally found in vernal pools <sup>b</sup>	Apr–Jun
	Alkali milkvetch ( <i>Astragalus tener</i> sp. <i>tener</i> )	N		Mar–Jun
	Contra Costa goldfields ( <i>Lasthenia conjugens</i> )	N	Generally found in vernal pools	Mar–Jun

Land Cover Type in the project area?	Plant Species	Covered (C) or No-Take (N)?	Typical Habitat or Physical Conditions, if Known	Typical Blooming Period <sup>a</sup>
--------------------------------------	---------------	-----------------------------	--------------------------------------------------	--------------------------------------

<sup>a</sup> From California Native Plant Society. 2007. *Inventory of Rare and Endangered Plants* (online edition, v7-07d). Sacramento, CA. Species may be identifiable outside of the typical blooming period; a professional botanist shall determine if a covered or no take plant occurs on the project site.

<sup>b</sup> See Species Profiles in Appendix D of the Final HCP/NCCP.

## Results of Covered and No-Take Plant Species Planning Surveys Required in Table 2b

**Describe the results of the planning survey conducted as required in Table 2b.** Describe the methods used to survey the site for all covered and no-take plants, including the dates and times of all survey's conducted (see Tables 3-8 and 6-5 of the HCP/NCCP for covered and no-take plants). In order to complete all the necessary covered and no-take plant surveys, both spring and fall surveys are required, check species survey requirements below.

**If any covered or no-take plants were found, include the following information in the results summary:**

- Description and number of occurrences and their rough population size.
- Description of the "health" of each occurrence, as defined on pages 5-49 and 5-50 of the HCP/NCCP.
- A map of all the occurrences.
- Justification of surveying time window, if outside of the plant's blooming period.
- The CNDDDB form(s) submitted to CDFW (if this is a new occurrence).
- A description of the anticipated impacts that the covered activity will have on the occurrence and/or how the project will avoid impacts to all covered and no-take plant species. All projects must demonstrate avoidance of all six no-take plants (see table 6-5 of the HCP/NCCP).

In accordance with the HCP/NCCP, a total of four covered and no-take species have the potential to occur in the project site: showy madia (*Madia radiata*), Mt. Diablo fairy lantern (*Calochortus pulchellus*), Brewer's dwarf flax (*Hesperolinon breweri*), and Diablo helianthella (*Helianthella castanea*). It should be noted, however, that the project site has a history of extensive disturbance dating to circa 1900. These disturbances include horse ranching, the construction of numerous homes, barns, outbuildings, water towers, and horse paddocks, and the introduction of numerous non-native plant species (largely for landscaping). This history of land conversion on the project site has also created a condition in which herbaceous and/or understory vegetation is largely absent from the property (much of the ground surface is graveled and barren). The only areas that support herbaceous and/or understory vegetation are those areas identified on Figure 3A as ruderal or riparian. The ruderal areas consist almost exclusively of non-native vegetation with a history of heavy grazing pressure, while the riparian area

understory is only sparsely vegetated (see the Plant Communities description above). Collectively, these disturbances have rendered the project footprint inhospitable to rare plant species. Thus, the proposed project is highly unlikely to impact the four covered and no-take plant species listed above.

In addition to the history of disturbance, the four covered and no-take plant species would be unlikely to occur on the project site owing to a general lack of suitable habitat. Since the project site lies below 400 feet elevation (it lies at approximately 350 feet above sea level), it does not provide suitable habitat for Diablo helianthella or Mt. Diablo fairy lantern; these species have a minimum elevation requirement of 650 feet above sea level. Similarly, Brewer’s dwarf flax would not be supported on the project site due to its strong affinity for serpentine soils, which are not found on the project site. Finally, it should also be noted that other than the Mount Diablo Creek corridor, which is being preserved in perpetuity as part of the proposed project, the woodlands of the project site are completely devoid of understory vegetation. Finally, the ruderal habitat present on the project site would be considered too disturbed to provide suitable grassland habitat for showy madia.

### III. Species-Specific Monitoring and Avoidance Requirements

This section discusses subsequent actions that are necessary to ensure project compliance with Plan requirements. Survey requirements and Best Management Practices pertaining to selected covered wildlife species are detailed in Section 6.4.3, *Species-Level Measures*, beginning on page 6-36 of the Final HCP/NCCP.

#### **Preconstruction Surveys for Selected Covered Wildlife**

If habitat for selected covered wildlife species identified in Table 2a was found to be present in the project area. In Table 3, identify the species for which preconstruction surveys or notifications are required based on the results of the planning surveys. Identify whether a condition of approval has been inserted into the development contract to address this requirement.

**Table 3. Applicable Preconstruction Survey and Notification Requirements based on Land Cover Types and Habitat Elements Identified in Table 2a.**

Species	Preconstruction Survey and Notification Requirements
<input type="checkbox"/> None	
<input checked="" type="checkbox"/> San Joaquin kit fox (p. 6-38)	Map all dens (>5 in. diameter) and determine status. Determine if breeding or denning foxes are in the project area. Provide written preconstruction survey results to FWS within 5 working days after surveying.
<input checked="" type="checkbox"/> Western burrowing owl (p. 6-40)	Map all burrows and determine status. Document use of habitat (e.g. breeding, foraging) in/near disturbance area (within 500 ft.)

<input type="checkbox"/> Giant garter snake (p. 6-44)	Delineate aquatic habitat up to 200 ft. from water's edge. Document any sightings of garter snake.
<input type="checkbox"/> California tiger salamander (p. 6-46) (notification only)	Provide written notification to USFWS and CDFW regarding timing of construction and likelihood of occurrence in the project area.
<input checked="" type="checkbox"/> California red-legged frog (p. 6-47) (notification only)	Provide written notification to USFWS and CDFW regarding timing of construction and likelihood of occurrence in the project area.
<input type="checkbox"/> Covered shrimp species (p. 6-47)	Document and evaluate use of all habitat features (e.g., vernal pools, rock outcrops). Document occurrences of covered shrimp.
<input checked="" type="checkbox"/> Townsend's big-eared bat (p. 6-37)	Determine if site is occupied or shows signs of recent occupation (guano).
<input type="checkbox"/> Swainson's hawk (p. 6-42)	Determine whether nests are occupied.
<input type="checkbox"/> Golden eagle (p. 6-39)	Determine whether nests are occupied.
Note: Page numbers refer to the HCP/NCCP.	

### **Preconstruction Surveys as Required for Selected Covered Wildlife in Table 3**

**Describe the preconstruction survey's or notification conditions applicable to any species checked in Table 3.** All preconstruction surveys shall be conducted in accordance with the requirements set forth in Section 6.4.3, *Species-Level Measures*, and Table 6-1 of the HCP/NCCP.

#### **San Joaquin Kit Fox**

Prior to any ground disturbance related to covered activities, a USFWS/CDFW-approved biologist will conduct a preconstruction survey in areas identified in the planning survey as capable of supporting suitable breeding or denning habitat for San Joaquin kit fox. The survey will establish the presence or absence of San Joaquin kit foxes and/or suitable dens and evaluate use by kit foxes in accordance with USFWS survey guidelines (U.S. Fish and Wildlife Service 1999). The preconstruction survey will be conducted within 30 days of ground disturbance. On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 250-foot radius from the perimeter of the proposed footprint to identify San Joaquin kit foxes and/or suitable dens. Adjacent parcels under different land ownership will not be surveyed. The status of all dens will be determined and mapped. Written results of the preconstruction survey will be submitted to USFWS within 5 working days after survey completion and before the start of ground disturbance. Concurrence is not required prior to initiation of covered activities.

#### **Western Burrowing Owl**

Prior to any ground disturbance related to covered activities, a USFWS/CDFW-approved biologist will conduct a preconstruction survey in areas identified in the planning survey as capable of supporting potential burrowing owl habitat. The survey will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use

by owls in accordance with CDFW survey guidelines (California Department of Fish and Wildlife 2012).

On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. The survey should take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls will be identified and mapped. The survey will take place no more than 30 days prior to construction. During the breeding season (February 1– August 31), the survey will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1–January 31), the survey will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

#### **California Red-legged Frog**

Prior to any ground disturbance of any suitable breeding habitat, written notification will be submitted to the USFWS, CDFW, and the Implementing Entity, including photos and habitat assessment. These parties will also be notified of the approximate date of removal of suitable habitat at least 30 days prior to this removal to allow USFWS or CDFW staff to translocate individuals, if requested. No preconstruction surveys are required.

#### **Townsend's Big-eared Bat**

If the project does not avoid impacts to suitable habitat for Townsend's big-eared bat, a preconstruction survey is required to determine whether the sites are occupied immediately prior to construction or whether they show signs of recent previous occupation. A preconstruction survey is used to determine what avoidance and minimization requirements are triggered before construction and whether construction monitoring is necessary.

If the species is discovered or if evidence of recent prior occupation is established, construction will be scheduled such that it minimizes impacts on Townsend's big-eared bat. Hibernation sites with evidence of prior occupation will be sealed before the hibernation season (November–March), and nursery sites will be sealed before the nursery season (April–August). If the site is occupied, then these actions will occur either prior to or after the hibernation season for hibernacula and after August 15 for nursery colonies. Construction will not take place as long as the site is occupied.

The locations of all suitable or occupied microhabitat within the inventory area are not known due to survey and mapping limitations. Hibernacula or nursery sites may be located during planning or preconstruction surveys. Avoiding impacts on occupied sites during sensitive periods will minimize disturbance or direct mortality as a result of

covered activities, and sealing sites prior to construction will allow bats to reestablish elsewhere.

**Construction Monitoring & Avoidance and Minimization Measures for Selected Covered Species**

If preconstruction surveys for key covered wildlife species establish the presence of any such species, construction monitoring will be necessary. In Table 4, check the boxes for the species that will be assessed during the preconstruction surveys (see Table 3). A summary of the construction monitoring requirements for each species is provided in Table 4 and these measures must be implemented in the event that preconstruction surveys described in Table 3 detect the covered species. A summary of avoidance measures is also provided in Table 4 and these measures must be implemented if construction monitoring detects the species or its sign. These construction monitoring and avoidance requirements are described in detail in Section 6.4.3, Species-Level Measures, of the Final HCP/NCCP.

**Construction Monitoring Plan Requirements in Section 6.3.3, Construction Monitoring, of the Final HCP/NCCP:**

- Before implementing a covered activity, the applicant will develop and submit a construction-monitoring plan to the Implementing Entity<sup>4</sup> for approval.**

Table 4. Applicable Construction Monitoring Requirements

Species Assessed by Preconstruction Surveys	Monitoring Action Required if Species Detected
<input type="checkbox"/> None	N/A
<input checked="" type="checkbox"/> San Joaquin kit fox (p. 6-38)	Establish exclusion zones (>50 ft) for potential dens. Establish exclusion zones (>100 ft) for known dens. Notify USFWS of occupied natal dens.
<input checked="" type="checkbox"/> Western burrowing owl (p. 6-40)	Establish buffer zones (250 ft) around nests. Establish buffer zones (160 ft) around burrows.
<input type="checkbox"/> Giant garter snake (p. 6-44)	Delineate 200-ft buffer around potential habitat. Provide field report on monitoring efforts. Stop construction activities if snake is encountered; allow snake to passively relocate. Remove temporary fill or debris from construction site. Mandatory training for construction personnel.
<input type="checkbox"/> Covered shrimp species (p. 6-47)	Establish buffer around outer edge of all hydric vegetation associated with habitat (50 feet of limit of immediate watershed supporting the wetland, whichever is larger). Mandatory training for construction personnel.
<input type="checkbox"/> Swainson’s hawk (p. 6-42)	Establish 1,000-ft buffer around active nest and monitor compliance.
<input type="checkbox"/> Golden eagle (p. 6-39)	Establish 0.5-mile buffer around active nest and monitor compliance.

<sup>4</sup> The East Contra Costa County Habitat Conservancy and the local land use Jurisdiction must review and approve the plan **prior** to the commencement of all covered activities (i.e. construction).

## **Construction Monitoring & Avoidance and Minimization Measures as Required for Selected Covered Wildlife in Table 4**

**Describe the construction monitoring and avoidance and minimization measures applicable to any species checked in Table 4.** A summary of avoidance measures is provided in Table 4, these measures must be implemented if construction monitoring detects the presence of the species. The construction monitoring & avoidance and minimization measures requirements are described in detail in Section 6.4.3, Species-Level Measures, of the HCP/NCCP.

### **San Joaquin Kit Fox**

#### **Construction Monitoring**

If dens are identified in the survey area outside the proposed disturbance footprint, exclusion zones around each den entrance or cluster of entrances will be demarcated. The configuration of exclusion zones should be circular, with a radius measured outward from the den entrance(s). No covered activities will occur within the exclusion zones. Exclusion zone radii for potential dens will be at least 50 feet and will be demarcated with four to five flagged stakes. Exclusion zone radii for known dens will be at least 100 feet and will be demarcated with staking and flagging that encircles each den or cluster of dens but does not prevent access to the den by kit fox.

#### **Avoidance and Minimization Measures**

- If a San Joaquin kit fox den is discovered in the proposed development footprint, the den will be monitored for 3 days by a USFWS/CDFW–approved biologist using a tracking medium or an infrared beam camera to determine if the den is currently being used.
- Unoccupied dens should be destroyed immediately to prevent subsequent use.
- If a natal or pupping den is found, USFWS and CDFW will be notified immediately. The den will not be destroyed until the pups and adults have vacated and then only after further consultation with USFWS and CDFW.
- If kit fox activity is observed at the den during the initial monitoring period, the den will be monitored for an additional 5 consecutive days from the time of the first observation to allow any resident animals to move to another den while den use is actively discouraged. For dens other than natal or pupping dens, use of the den can be discouraged by partially plugging the entrance with soil such that any resident animal can easily escape. Once the den is determined to be unoccupied it may be excavated under the direction of the biologist. Alternatively, if the animal is still present after 5 or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant (i.e., during the animal’s normal foraging activities).

## Western Burrowing Owl

### Avoidance and Minimization and Construction Monitoring

If burrowing owls are found during the breeding season (February 1–August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1– January 31), the project proponent should avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below).

### Mitigation for unavoidable impacts includes:

If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 2012). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

## IV. Landscape and Natural Community-Level Avoidance and Minimization Measures

Describe relevant avoidance and minimization measures required to address the conservation measures listed below. If a conservation measure is not relevant to the project, explain why.

### For All Projects

#### **HCP/NCCP Conservation Measure 1.10. Maintain Hydrologic Conditions and Minimize Erosion**

Briefly describe how the project complies with this measure. See page 6-21 of the Final HCP/NCCP for details.

The perennial Mount Diablo Creek traverses the southern and western boundary of the project site (Figure 3A); this creek will be included as part of a deed-restricted conservation area (stream setback) that will be preserved in perpetuity. A small portion of the creek (0.03 acre, 1,471 square feet) will be temporarily impacted by construction associated with the installation of the sewer pipeline across the creek.

The applicant proposes to conduct all work in the stream in the dry season (August/September) and as such would not need to dewater the stream in order to excavate. If work should occur during periods of flow in the creek, prior to any work within Mount Diablo Creek, the work area will be dewatered. A temporary sandbag coffer dam will be installed to isolate the work area from the flowing portion of the creek. The sandbag coffer dam will be wrapped in 10-mil visqueen to prevent seepage of water through the sandbags into the dewatered area. In the event that groundwater seepage occurs in the work area, water will be pumped to a filtering containment unit prior to being allowed to reenter the channel downstream of the work area. While all wildlife would be removed from the dewatered area and placed back into the flowing portion of the creek, the sump pump intake will be screened with wire mesh not larger than five millimeters (mm) to prevent fish and possibly frogs, or larvae, from entering the pump system. All efforts will be made to avoid and otherwise minimize any sediment from flowing downstream.

Best Management Practices (BMP's) will be implemented as part of the project to ensure that de minimus fill does not enter Mount Diablo Creek. Hay wattles will be installed between the project footprint and Mount Diablo Creek. BMP's will also include the installation of silt fencing between the construction footprint and the creek channel. In addition, refueling areas will be contained with fuel blankets to prevent any fuel spills during fueling. Finally, a California native seed hydroseed mix will be applied to all temporarily-disturbed areas upon completion of the project. The location of the BMP's will be mapped with a GPS unit and submitted to the Conservancy in the Construction Monitoring Plan to demonstrate compliance with conditions set forth in the HCP/NCCP for maintaining hydrologic conditions and minimizing erosion.

### **HCP/NCCP Conservation Measure 1.11. Avoid Direct Impacts on Extremely Rare Plants, Fully Protected Wildlife Species, or Covered Migratory Birds**

Briefly describe how the project complies with this measure. See page 6-23 of the Final HCP/NCCP for details.

Complete details of the potential for rare plants and mitigation for potential impacts are provided on pages 11-15 of the PSR. Please refer to the "Results of Covered and No-Take Plant Species Planning Surveys Required in Table 2b." No suitable rare plant habitat occurs on the project site.

The trees on the project site provide suitable nesting habitat for white-tailed kite (*Elanus caeruleus*) (a fully protected bird as defined under Sections 3511 and 4700 of the California Fish and Game Code). No suitable habitat for other fully protected wildlife species occurs on the project site.

The trees on the project site also provide suitable nesting habitat for common birds. Impacts to common nesting birds and raptors are not addressed in the HCP/NCCP; however, these birds are protected under the Migratory Bird Treaty Act (50 CFR 10.13) and their eggs and young are protected under California Fish and Game Code Sections 3503, 3503.5. Potential impacts to these species from the proposed project include disturbance to nesting birds and possibly death of adults and/or young. No active nests have been identified in the adjacent grasslands or trees; however, no specific surveys for nesting passerine birds or raptors have been conducted.

In order to avoid impacts to nesting birds and raptors (including fully protected species), a nesting survey shall be conducted 15 days prior to commencing with proposed construction, if this work would commence between February 15<sup>th</sup> and September 15<sup>th</sup>. The results of this survey shall be contained within the Construction Monitoring Plan. The nesting survey shall include examination of the trees, shrubs, and ground within the project site footprint as well as the surrounding 250 feet. If nesting birds are identified during the surveys, a qualified biologist shall determine whether the proposed work could negatively impact the nest. If the proposed work has the potential to negatively impact the nest, all work at the site near the nest shall be delayed until a qualified biologist determines that the young have fledged the nest or that it is otherwise no longer in use.

If more than 15 days elapse between the date of the nesting survey and the start of the project, the nesting survey shall be repeated until the site no longer supports potential nesting habitat.

### **For Projects on or adjacent to Streams or Wetlands**

#### **HCP/NCCP Conservation Measure 1.7. Establish Stream Setbacks**

Briefly describe how the project complies with this measure. See page 6-15 and Table 6-2 of the Final HCP/NCCP for details. For questions on the stream setback requirements, please contact the Conservancy.

Mount Diablo Creek traverses the southern and western boundary of the project site. Mount Diablo Creek is a 3<sup>rd</sup> or higher order intermittent stream. Per Table 6-2 of the Final HCP/NCCP, a 3<sup>rd</sup> or higher order ephemeral stream warrants a 50-foot (and greater) setback from the TOB. The bed, bank, and channel of Mount Diablo Creek and its riparian vegetation will be preserved in perpetuity as part of a deed-restricted conservation area associated with the project. Along the length of Mount Diablo Creek, the setback ranges from 50 feet to 190 feet from TOB. Approximately 0.7 acre will be included in the setback that is above and beyond the acreage required by the Final HCP/NCCP (Figure 3 and Site Plan).

Within the setback, an outfall structure will be constructed where storm water would be discharged from the project site, a sewer line will be installed via open cut trenching to

connect the development to the existing sewer line, vegetated stormwater detention basins will be constructed, and small portions of a private road and a private driveway will be constructed. These impacts are illustrated in Figure 3. Excluding the construction of a “necessary outfall”, these activities are not specifically authorized within the setback per the Final HCP/NCCP. These impacts total 0.75 acre of temporary impact and 0.02 acre of permanent impact (private road and driveway), totalling 0.77 acre (11.7% of the setback area). The extent of impacts within the setback is below the permitted 15% designated in Table 6-2 of the Final HCP/NCCP.

To protect the creek during construction, a complete suite of BMPs will be implemented (please see Section 1.10 of this PSR).

### **HCP/NCCP Conservation Measure 2.12. Wetland, Pond, and Stream Avoidance and Minimization**

Briefly describe how the project complies with this measure. See page 6-33 of the Final HCP/NCCP for details.

The only known water of the U.S./State within the project site footprint is Mount Diablo Creek which traverses the southern and western boundary of the project site. The bed, bank, and channel and riparian vegetation of Mount Diablo Creek will be preserved in perpetuity as part of a deed-restricted conservation area associated with project. This deed-restricted conservation area will also include a 50-foot (and greater) setback from the northern and eastern top-of-bank of Mount Diablo Creek (please see the attached Site Plan). A small portion of Mount Diablo Creek (approximately 0.03 acre) will be temporarily impacted by construction associated with the installation of the sewer pipeline across the creek. To protect the creek during construction, a complete suite of BMPs will be implemented (please see Section 1.10 of this PSR).

### **For Projects adjacent to Protected Natural Lands (existing and projected)**

Covered activities adjacent to permanently protected natural lands will require a variety of special considerations to address issues associated with characteristics of the urban-wildland interface. These considerations are intended to minimize the impacts of development on the integrity of habitat preserved and protected under the terms of the Plan. Permanently protected natural lands are defined as any of the following (see the latest Preserve System map on the Conservancy web site, [www.cocohcp.org](http://www.cocohcp.org)).

- Publicly owned open space with substantial natural land cover types including but not limited to state and regional parks and preserves and public watershed lands (local and urban neighborhood parks are excluded).
- Deed-restricted private conservation easements.
- HCP/NCCP Preserve System lands.
- Potential HCP/NCCP Preserve System lands (see Figure 5-3 in the HCP/NCCP).

## **HCP/NCCP Conservation Measure 1.6. Minimize Development Footprint Adjacent to Open Space**

Briefly describe how the project complies with this measure. See page 6-14 of the Final HCP/NCCP for details.

Mount Diablo Creek traverses the southern and western boundary of the project site. The bed, bank, and channel and riparian vegetation of Mount Diablo Creek will be preserved in perpetuity as part of a deed-restricted conservation area associated with project. This deed-restricted conservation area will also include a 50-foot (and greater) setback from the northern and eastern top-of-bank of Mount Diablo Creek (please see the attached Site Plan). To incorporate this deed-restricted conservation area, the proposed development was reduced in both acreage and the number of units to the minimum viable project design. Thus, development was minimized to the most practicable extent. It should also be noted that other than the riparian corridor associated with Mount Diablo Creek, there are no other open (natural) spaces adjacent to the proposed project site. Thus, this proposed project will result in approximately 6.60 acres of deed-restricted conservation area (open space), that was previously unprotected.

## **HCP/NCCP Conservation Measure 1.8. Establish Fuel Management Buffer to Protect Preserves and Property**

Briefly describe how the project complies with this measure. See page 6-18 of the Final HCP/NCCP for details.

The proposed project has already been designed to the minimum viable project footprint in an effort to accommodate the 50-foot stream setback requirement. As such, a fuel management buffer requirement in addition to the stream setback requirement would result in the reduction of the project scope from seven single-family homes and 52 townhomes, to a development of zero single-family homes, and approximately 25 townhomes. Such a reduction in scope would render the project non-viable. Furthermore, the proximity of Mount Diablo Creek and the deed-restricted conservation area to Silver Oaks Estates will be one of the property's most desirable features for potential residents.

It should also be noted that the proposed project must be reviewed and approved by the Contra Costa County Fire Marshal. Thus, any potential fuel buffer concerns will be addressed and/or mitigated at that time.

## **HCP/NCCP Conservation Measure 1.9. Incorporate Urban-Wildland Interface Design Elements**

Briefly describe how the project complies with this measure. See page 6-20 of the Final HCP/NCCP for details.

A four foot tall, vinyl-clad, chain-link fence will be installed along the 50-foot (and greater) setback line, and the deed-restricted conservation area will not be open for public access. The purpose of the deed-restricted conservation area is natural land preservation in perpetuity. Additionally, each property will have a four-foot tall property-line fence.

### **For Rural Infrastructure Projects**

Rural infrastructure projects provide infrastructure that supports urban development within the urban development area. Such projects are divided into three categories: transportation projects, flood protection projects, and utility projects. Most rural road projects covered by the Plan will be led by Contra Costa County. All flood protection projects covered by the Plan will be led by the County Flood Control District. Utility projects will likely be led by the private companies that own the utility lines. A complete discussion of rural infrastructure projects is presented in Section 2.3.2 of the Final HCP/NCCP beginning on page 2-18.

### **HCP/NCCP Conservation Measure 1.12. Implement Best Management Practices for Rural Road Maintenance**

Briefly describe how the project complies with this measure. See page 6-25 of the Final HCP/NCCP for details.

Not applicable. The project site does not contain rural roads.

### **HCP/NCCP Conservation Measure 1.13. Implement Best Management Practices for Flood Control Facility Maintenance**

Briefly describe how the project complies with this measure. See page 6-26 of the Final HCP/NCCP for details.

Not applicable. The project site is not part of a Flood Control Facility.

### **HCP/NCCP Conservation Measure 1.14. Design Requirements for Covered Roads outside the Urban Development Area**

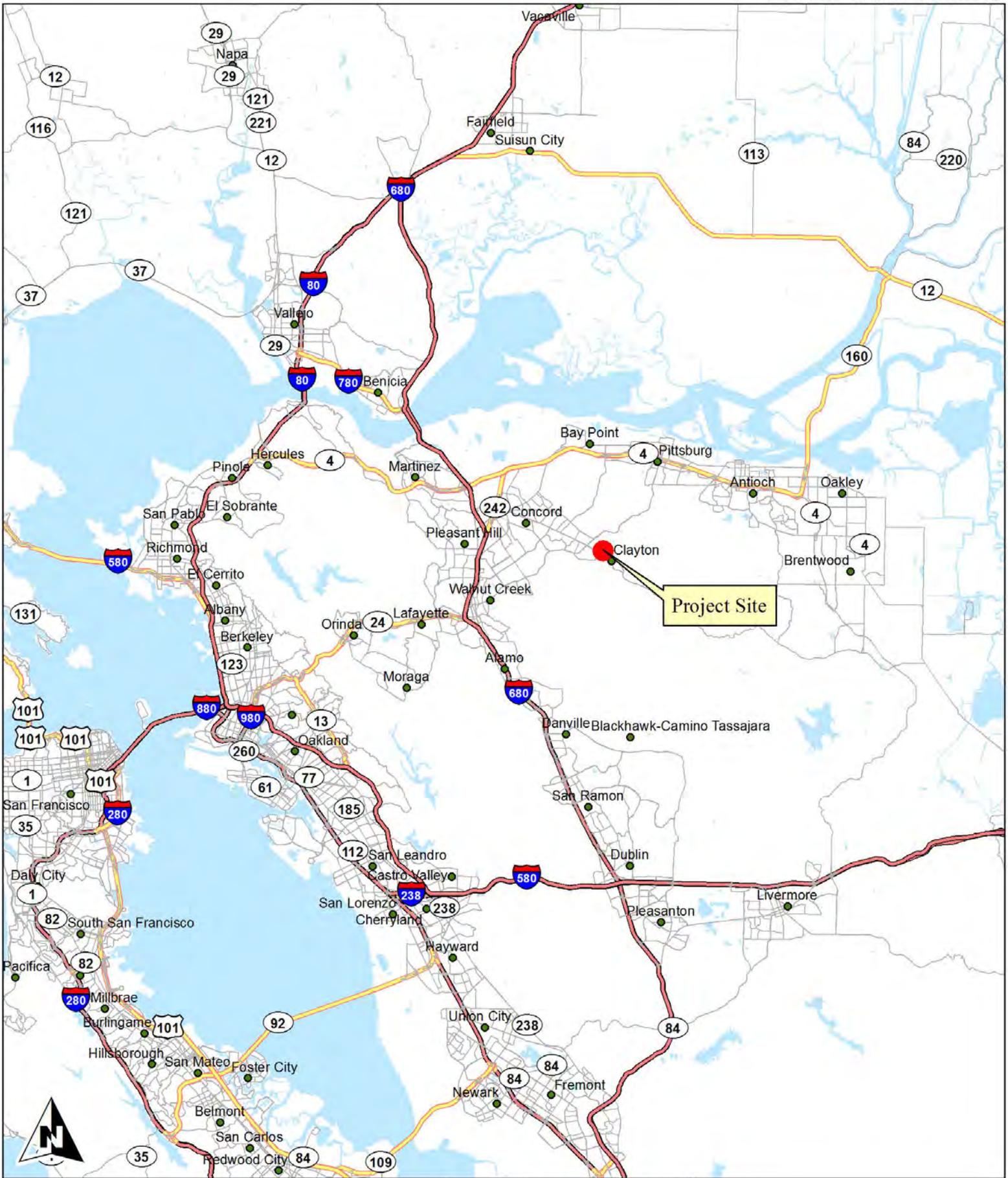
Briefly describe how the project complies with this measure. See page 6-27 of the Final HCP/NCCP for details.

Not applicable. The proposed project is not outside of the Urban Development Area.

## **V. Mitigation Measures**

### **Complete and Attach Exhibit 1 (Permanent Impact Fees) and/or Exhibit 2 (Temporary Impact Fees) Fee Calculator(s) for Permanent and Temporary Impacts.**

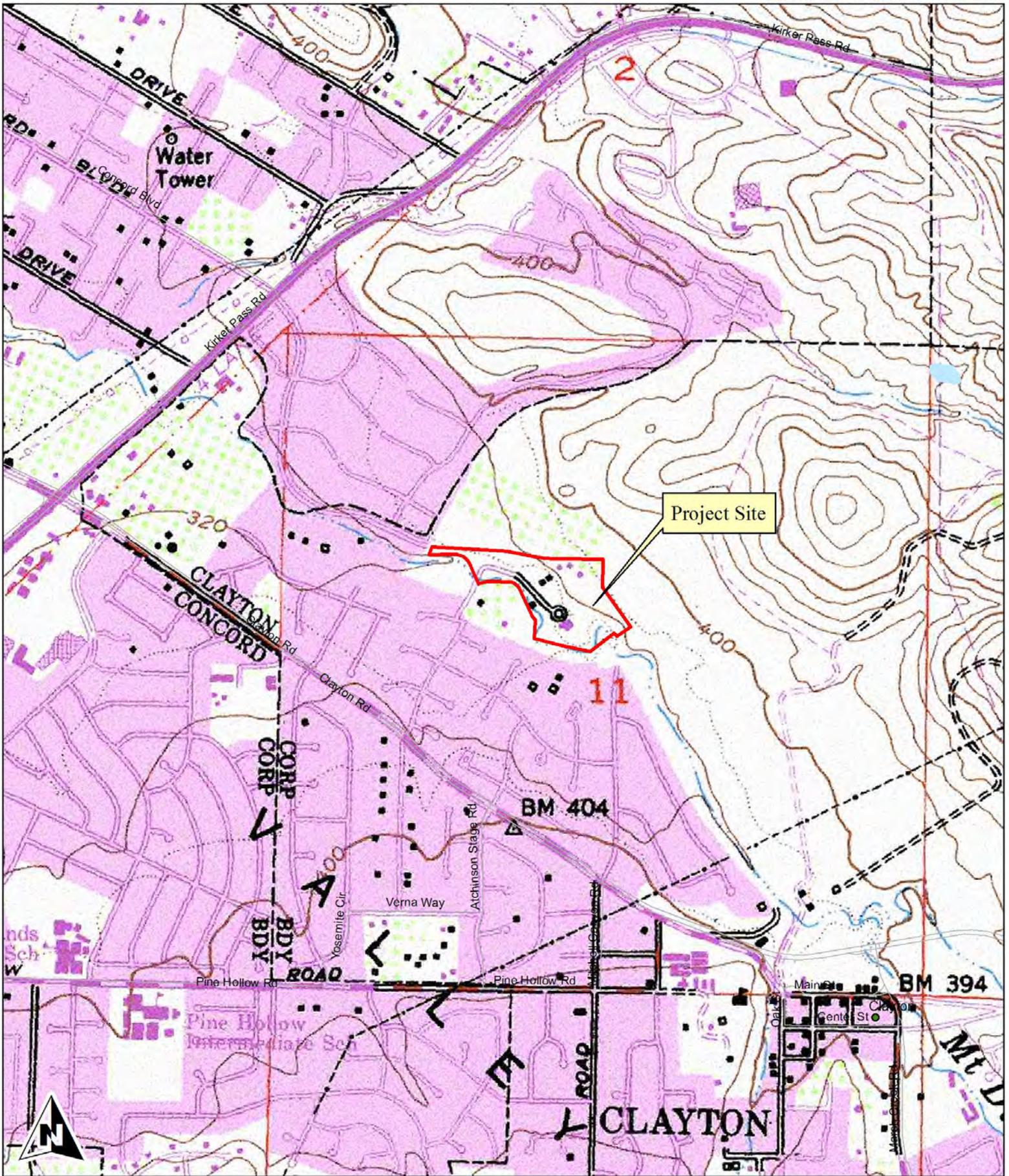
- Briefly describe the amount of fees to be paid and when.
- See Section 9.3.1 of the HCP/NCCP for details. If land is to be dedicated in lieu of fees or if restoration or creation of jurisdictional wetlands or waters is to be performed in lieu of fees, summarize these actions here and attach written evidence that the Conservancy has approved these actions in lieu of fees.



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

Figure 1A. Silver Oaks Estates  
Project Site Regional Map  
Clayton, California

County: Contra Costa  
Map Preparation Date: February 25, 2013



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

Figure 1B. Silver Oaks Estates  
Project Site Vicinity Map  
Clayton, California

County: Contra Costa  
7.5-Minute Clayton Quadrangle  
Map Preparation Date: February 25, 2013

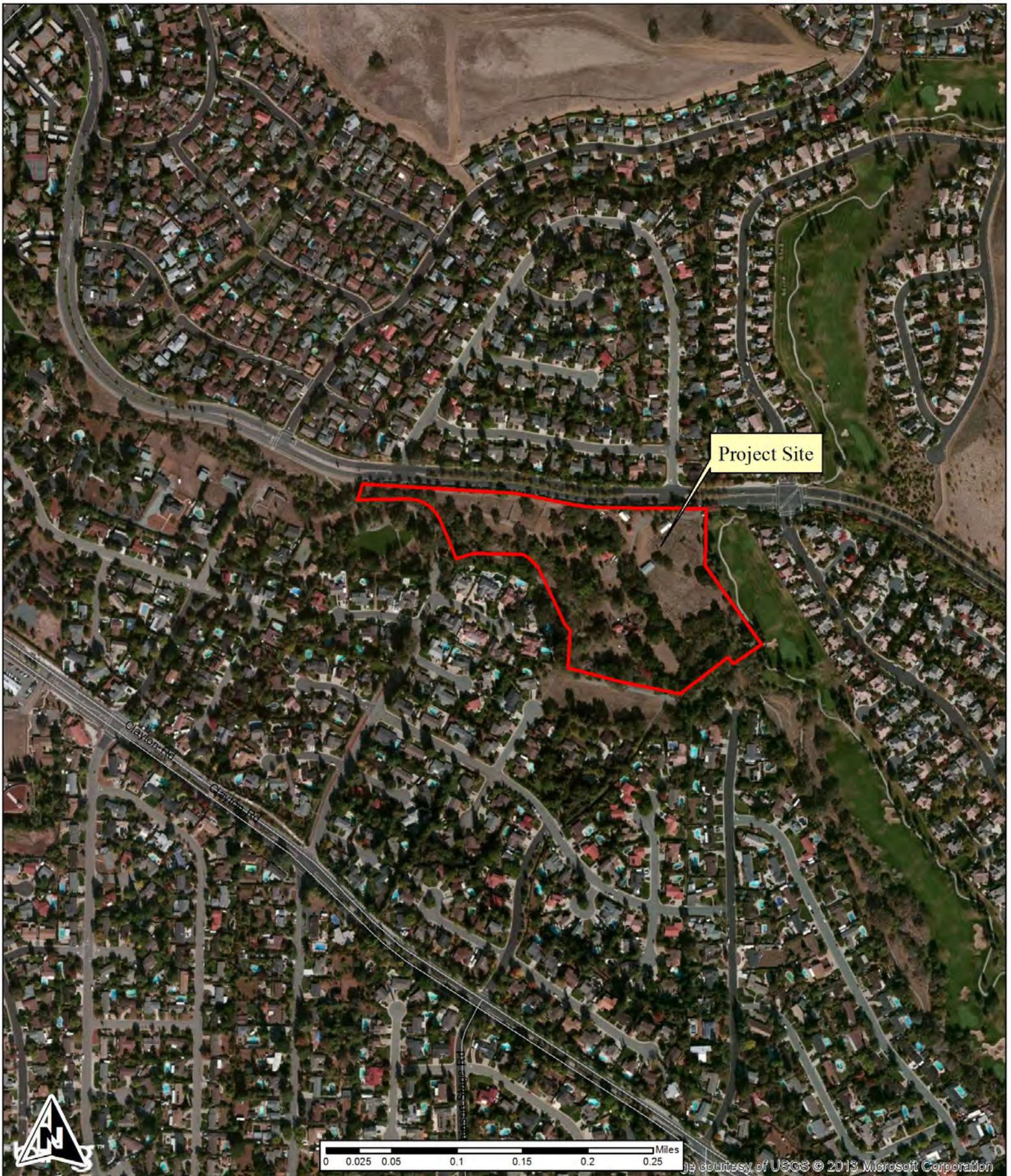


Figure 2. Silver Oaks Estates  
Project Site Footprint  
(See Engineer's Exhibits for Detailed Site Plan)  
Clayton, California

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

County: Contra Costa  
Map Preparation Date: February 25, 2013



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

0 50 100 200 300 400 500 Feet

Figure 3A. Land Cover Types  
 Silver Oaks Estates Project Site  
 Clayton, California

Aerial Photograph Source: ESRI  
 Map Preparation Date: August 13, 2014

Figure 3B. Photopages  
Silver Oaks Estates  
Planning Survey Report

---



Photograph exemplifying the barren nature of the project site understory and open areas.

---



Photograph exemplifying the pastoral livestock areas.

---

Figure 3B. Photopages  
Silver Oaks Estates  
Planning Survey Report

---



Photograph exemplifying the abandoned buildings on the project site.

---

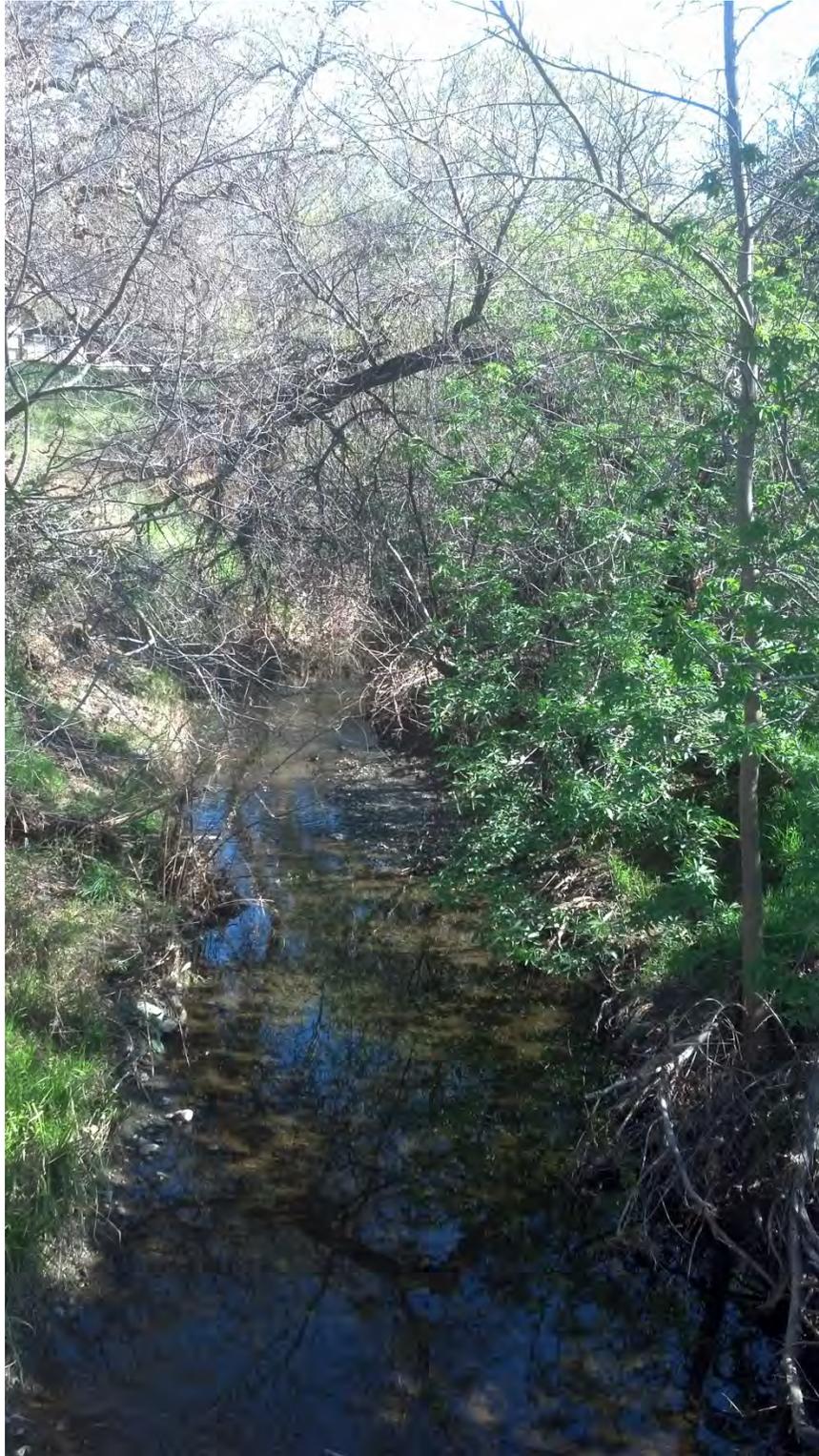


Photograph showing the project site's woodlands and their barren/littered understory.

---

Figure 3B. Photopages  
Silver Oaks Estates  
Planning Survey Report

---

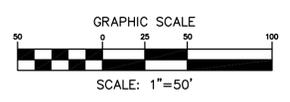


Mount Diablo Creek

---

**OAKHURST DRIVE**

**NOTE #1**  
ROADWAY IMPACTS IN SETBACK  
NEED TO BE PERMEABLE OR  
SEMI-PERMEABLE. USE PAVERS.



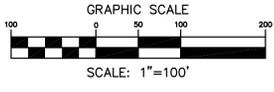
**LEGEND**

- BOUNDARY LINE
- PROPERTY LINE
- FACE OF CURB
- HCP EASEMENT
- 50' HCP SETBACK LINE
- 1/3 OF HCP SETBACK
- TOP OF BANK
- RIPARIAN LINE (MONK)
- LIMIT OF GRADING
- 4' VINYL-CLAD CHAIN LINK FENCE
- BIORETENTION SWALE
- RETAINING WALL
- EARTH SWALE
- HCP
- HABITAT CONSERVATION PLAN
- HCP EASEMENT AREA 6.6 AC
- 50' SETBACK AREA 3.2 AC.
- CREEK AREA 2.7 AC.
- AREA OUTSIDE DEFINED 50' SETBACK DONATED TO HCP 0.7 AC.
- PERMANENT IMPACT WITHIN HCP SETBACK 0.3 AC. - 139 L.F.
- TEMPORARY IMPACT WITHIN HCP SETBACK 0.5 AC.
- BIORETENTION BASIN 0.2 AC.

EXISTING ROAD  
NO GRADING  
OVERLAY ONLY

**NOTE #1**  
ROADWAY IMPACTS IN SETBACK  
NEED TO BE PERMEABLE OR  
SEMI-PERMEABLE. USE PAVERS.

**HCP EASEMENT DETAIL**



**HCP FEE CALCULATIONS**

TOTAL PROJECT AREA	13.9 AC.
TOTAL HABITAT CONSERVATION PLAN EASEMENT AREA	- 6.6 AC.
TOTAL FEE AREA	7.3 AC.

**SITE PLAN**  
**SILVER OAK ESTATES**  
CLAYTON · CONTRA COSTA COUNTY · CALIFORNIA  
JANUARY 29, 2013



# Exhibit 1: HCP/NCCP FEE CALCULATOR WORKSHEET

## PROJECT APPLICANT INFO:

Project Applicant: Clyde Miles Construction Company, Inc.

Project Name: Silver Oaks Estates

APN (s): 118-020-029

Date: August 15, 2014

Jurisdiction: City of Clayton

### DEVELOPMENT FEE (see appropriate ordinance or HCP/NCCP Figure 9-1 to determine Fee Zone)

#### Acreage of land to be permanently disturbed (from Table 1)<sup>1</sup>

	Full Development Fee		Fee per Acre (subject to change on 3/15/15 <sup>2</sup> )	
Fee Zone 1		x	\$12,117.05 =	\$0.00
Fee Zone 2	7.38	x	\$24,234.09 =	\$178,847.58
Fee Zone 3		x	\$6,059.03 =	\$0.00
Fee Zone 4 <sup>3</sup>		x	\$18,175.57 =	\$0.00
<b>Development Fee Total =</b>				<b>\$178,847.58</b>

### \*\*WETLAND MITIGATION FEE

	Acreage of wetland		Fee per Acre (subject to change on 3/15/15 <sup>2</sup> )	
Riparian woodland / scrub	0.270	x	\$69,690.65 =	\$18,816.48
Perennial Wetland		x	\$95,366.15 =	\$0.00
Seasonal Wetland		x	\$206,626.66 =	\$0.00
Alkali Wetland		x	\$195,622.87 =	\$0.00
Ponds		x	\$103,924.65 =	\$0.00
Aquatic (open water)		x	\$52,573.65 =	\$0.00
Slough / Channel		x	\$118,596.37 =	\$0.00
<b>Linear Feet</b>				
<b>Streams</b>				
Streams 25 Feet wide or less (Fee is per Linear Foot)		x	\$568.17 =	\$0.00
Streams greater than 25 feet wide (Fee is per Linear Foot)		x	\$855.85 =	\$0.00
<b>Wetland Mitigation Fee Total =</b>				<b>\$18,816.48</b>

### FEE REDUCTION

Development Fee reduction (authorized by Implementing Entity) for land in lieu of fee	
Development Fee reduction (up to 33%, but must be approved by Conservancy) for permanent assessments	
Wetland Mitigation Fee reduction (authorized by Implementing Entity) for wetland restoration/creation performed by applicant	
<b>Reduction Total =</b>	<b>\$0.00</b>

### CALCULATE FINAL FEE

Development Fee Total	\$178,847.58
Wetland Mitigation Fee Total +	\$18,816.48
<b>Fee Subtotal</b>	<b>\$197,664.06</b>
<b>Contribution to Recovery +</b>	
<b>TOTAL AMOUNT TO BE PAID =</b>	<b>\$197,664.06</b>

#### Notes:

1 City/County Planning Staff will consult the land cover map in the Final HCP/NCCP and will reduce the acreage subject to the Development Fee by the acreage of the subject property that was identified in the Final HCP/NCCP as urban, turf, landfill or aqueduct land cover.

2 The Conservancy is currently conducting the periodic fee audit required by the HCP/NCCP which could result in further adjustment to some or all fees in 2014.

3 "Fee Zone 4" is not shown on Figure 9.1 of the HCP/NCCP but refers to the fee applicable to those few covered activities located in northeastern Antioch (see page 9-21 of the HCP).

**Template date: March 15, 2014**

# Exhibit 2: TEMPORARY IMPACT FEE CALCULATOR WORKSHEET

## PROJECT APPLICANT INFO:

Project Applicant: Clyde Miles Construction Company, Inc.

Project Name: Silver Oaks Estates

APN (s): 118-020-029

Date: August 15, 2014

Jurisdiction: City of Clayton

### TEMPORARY DEVELOPMENT IMPACT FEE (see appropriate ordinance or HCP/NCCP Figure 9-1 to determine Fee Zone)

	Acreage of land to be temporarily disturbed (from Table 1) <sup>1</sup>		Years of Disturbance (2 years is the minimum for ground-disturbing)		Fee per Acre (subject to change on 3/15/15 <sup>2</sup> )	
Fee Zone 1		X		/30	x	\$12,117.05 = \$0.00
Fee Zone 2	0.75	X	2	/30	x	\$24,234.09 = \$1,211.70
Fee Zone 3		X		/30	x	\$6,059.03 = \$0.00
Fee Zone 4 <sup>3</sup>		X		/30	x	\$18,175.57 = \$0.00
<b>Temporary Impact Fee Total =</b>						<b>\$1,211.70</b>

### \*\*TEMPORARY WETLAND MITIGATION FEE

	Acreage of wetland		Yrs. Of Disturbance (minimum shown)		Fee per Acre (subject to change on 3/15/15 <sup>2</sup> )	
Riparian woodland / scrub	0.130		5.00	x	\$69,690.65 = \$ 1,509.96	
Perennial Wetland			2.00	x	\$95,366.15 = \$ -	
Seasonal Wetland			2.00	x	\$206,626.66 = \$ -	
Alkali Wetland			2.00	x	\$195,622.87 = \$ -	
Ponds			2.00	x	\$103,924.65 = \$ -	
Aquatic (open water)			2.00	x	\$52,573.65 = \$ -	
Slough / Channel			2.00	x	\$118,596.37 = \$ -	
<b>Linear Feet</b>						
<b>Streams</b>						
Streams 25 Feet wide or less (Fee is per Linear Foot)				2.00	x	\$568.17 = \$0.00
Streams greater than 25 feet wide (Fee is per Linear Foot)			20.00	2.00	x	\$855.85 = \$1,141.13
<b>Wetland Mitigation Fee Total =</b>						<b>\$ 2,651.10</b>

### FEE REDUCTION

Development Fee reduction (authorized by Implementing Entity) for land in lieu of fee	
Development Fee reduction (up to 33%, but must be approved by Conservancy) for permanent assessments	
Wetland Mitigation Fee reduction (authorized by Implementing Entity) for wetland restoration/creation performed by applicant	
<b>Reduction Total =</b>	<b>\$0.00</b>

### CALCULATE FINAL TEMPORARY IMPACT FEES

Development Fee Total	\$1,211.70
Wetland Mitigation Fee Total +	\$ 2,651.10
<b>Fee Subtotal =</b>	<b>\$3,862.80</b>
<b>TOTAL TEMPORARY IMPACT FEES TO BE PAID =</b>	<b>\$3,862.80</b>

#### Notes:

1 City/County Planning Staff will consult the land cover map in the Final HCP/NCCP and will reduce the acreage subject to the Development Fee by the acreage of the subject property that was identified in the Final HCP/NCCP as urban, turf, landfill or aqueduct land cover.

2 The Conservancy is currently conducting the periodic fee audit required by the HCP/NCCP which could result in further adjustment to some or all fees in 2014.

3 "Fee Zone 4" is not shown on Figure 9.1 of the HCP/NCCP but refers to the fee applicable to those few covered activities located in northeastern Antioch (see page 9-21 of the HCP).

**Template date: March 15, 2014**