



Biological Resources Evaluation Mitigation Site at on East Bay Regional Park District

This report presents the methods and results of a reconnaissance-level biological survey conducted by [REDACTED] for the [REDACTED] Mitigation Site at [REDACTED] (Project). The [REDACTED] Mitigation site is located at [REDACTED] adjacent to an existing dirt access road. The Project is located just north of [REDACTED] approximately 3 miles southeast of the city of [REDACTED] in Contra Costa County [REDACTED]. The existing pipeline easement is located within the [REDACTED], owned and managed by the East Bay Regional Park District (EBRPD).

The purpose of the survey was to characterize the habitat present at the repair site and to evaluate the potential for special-status species to occur within areas of proposed ground disturbance. This evaluation is intended to support acquisition of an encroachment permit from EBRPD for access and temporary construction impacts within and adjacent to [REDACTED] easement.

Proposed Action



[REDACTED] mitigation activities would result in an area of disturbance of approximately [REDACTED] [REDACTED]. Access to the [REDACTED] mitigation site would require driving 120 feet north on an existing dirt road from [REDACTED]. The [REDACTED] mitigation work at [REDACTED] will take two days and is scheduled to be completed in spring 2018.

Survey Methods

[REDACTED] conducted a reconnaissance-level field survey on February 2, 2018 to assess the project site for wetlands and special-status species. Prior to conducting the survey, the biologists compiled a focal list of special-



status species that have potential to occur in the project region based on a review of the California Natural Diversity Database (CNDDDB), California Native Plant Society (CNPS) database, U.S. Fish and Wildlife (USFWS) regional species list, and the East Contra Costa County Habitat Conservation Plan (HCP) (East Contra Costa County Habitat Conservation Plan Association 2006). The survey area included the [REDACTED] mitigation site and 500 feet around the project site within undeveloped areas.

Results

[REDACTED] The site had evidence of cattle grazing. Vegetation at the site consists of grassland dominated by nonnative grasses, including soft chess (*Bromus hordeaceus*), Medusa head (*Elymus caput-medusae*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), foxtail barley (*Hordeum murinum* ssp. *leporinum*), and Italian ryegrass (*Lolium perennis*). Common forbs included Mediterranean linseed (*Bellardia trixago*), white stemmed filaree (*Erodium moschatum*), crane's bill geranium (*Geranium molle*), clover (*Trifolium* sp.), and the dried stems of a tarplant that was not identifiable to the genus taxonomic level. Most plants were seedlings at the time of the site visit, and none were blooming. Surrounding habitat consists of grassland and blue oak woodland. No wetlands or non-wetland waters of the United States are present within the [REDACTED] mitigation site. The closest aquatic resource is an ephemeral drainage located 25 feet west of the site. This feature was dry at the time of the February 2, 2018 field survey, and no areas of ponded water were observed within 500 feet upstream from the [REDACTED] mitigation site.

Representative photographs of the [REDACTED] mitigation site are provided in Figure 3. Aquatic resource and special-status species that have potential to be affected by the [REDACTED] mitigation project are discussed below.

Aquatic Resources

An unnamed ephemeral drainage (tributary to [REDACTED]) is present adjacent to and downslope of the [REDACTED] mitigation site. To minimize erosion at the site and prevent runoff of sediment or contaminants into the ephemeral drainage, [REDACTED] will implement Avoidance and Minimization Measures (AMMs) (listed below), including installation of erosion control devices between the work area and the drainage and stabilization of disturbed soil following proposed construction activities.

Special-Status Plants

Grassland at and adjacent to the [REDACTED] mitigation site has the potential to support the following 10 special-status plant species that are covered under the Contra Costa HCP.

- Big tarplant (*Blepharizonia plumosa*) (blooms July – October)
- Contra Costa goldfields (*Lasthenia conjugens*) (blooms March-April)
- Showy madia (*Madia radiata*) (blooms March to May)
- Large-flowered fiddleneck (*Amsinckia grandiflora*) (blooms April-May)

- Alkali milkvetch (*Astragalus tener* var. *tener*) (blooms March-June)
- Round-leaved filaree (*California macrophylla*) (blooms March-May)
- Mt. Diablo fairy lantern (*Calochortus pulchellus*) (blooms April-June)
- Brewer's dwarf flax (*Hesperolinon breweri*) (blooms May-July)
- Diamond-petaled California poppy (*Eschscholzia rhombipetala*) (blooms March-April)
- Mt. Diablo buckwheat (*Eriogonum truncatum*) (blooms April-December)

Three of these species—big tarplant, Mt. Diablo fairy lantern, and Brewer's dwarf flax, which are California Rare Plant Rank 1B.1 species and HCP-covered species, have been documented within 1 mile of the [REDACTED] mitigation site.

The February 2, 2018 field survey did not coincide with the blooming period for any of the special-status plants that have potential to occur within grassland habitat present at the project site. However, several of the early-blooming species listed above would have been identifiable to genus based on vegetative characteristics, including, Contra Costa goldfields, large-flowered fiddleneck, round-leaved filaree, diamond-petaled poppy, and alkali milkvetch. None of these genera were observed at the site. The dried remains of a tarplant were observed at the site, but it was not identifiable to genus, and has potential to be a *Blepharizonia*. The absence of big tarplant, therefore, could not be confirmed. Absence of showy madia, Mt. Diablo fairy lantern, Brewer's dwarf flax, and Mt. Diablo buckwheat could not be confirmed due on the timing of the survey when plants could not be identified.

Given the grazing disturbance of the site, the small area of proposed ground disturbance ([REDACTED]), and minimal excavation ([REDACTED]), there is a low likelihood that special-status plants would be disturbed from project activities. If the tarplant observed onsite is big tarplant, or if other special-status plants are present that were not observable during the survey, there would be impacts on only a few plants at most. To further minimize disturbance within the project site, the 6 inches of topsoil excavated will be stockpiled separately and replaced over the disturbed area to maintain the seed bank.

Special-Status Wildlife

Grassland at and adjacent to the [REDACTED] mitigation site provides potential upland habitat for several special-status and HCP-covered wildlife species, including San Joaquin kit fox, burrowing owl, California tiger salamander, and California red-legged frog. Based on HCP modeled habitat, the repair site is also within an area identified as movement habitat for Alameda whipsnake. Potential nesting habitat for golden eagle is absent from the [REDACTED] mitigation site but the species could use oak woodlands surrounding the [REDACTED] mitigation site for nesting or foraging. At the time of the February 2, 2018 field survey all adjacent oak trees were leafless, no large raptor nests were observed in oak trees that were visible from the [REDACTED] mitigation site.

No special-status wildlife were encountered during the February 2, 2018 field survey. A discussion of special-status wildlife that could be present within or near the [REDACTED] mitigation site is provided below.

[REDACTED]

San Joaquin Kit Fox

The San Joaquin kit fox is listed as endangered under the federal Endangered Species Act (ESA) and threatened under the California Endangered Species Act (CESA). Annual grassland within the [REDACTED] mitigation site represents potential foraging and denning habitat for kit foxes; however, no burrows or potential dens sites were present at the time of the February 2, 2018 field survey. Based on HCP modeled habitat for San Joaquin kit fox, the [REDACTED] mitigation site is within suitable low-use habitat for the species. The closest documented occurrence is 4.75 miles to the north within the Black Diamond Mines Regional Preserve, based on two separate observations of a foraging adult in 1992 (California Department of Fish and Wildlife 2018). Overall, there is a low likelihood of encountering a San Joaquin kit fox during project activities. This conclusion is based on the low incidence of sightings in proximity to the site; lack of burrows of sufficient size (burrow entrance of at least 4 inches in diameter) that could be used by kit foxes at or within 500 feet of the [REDACTED] mitigation site; limited project duration (2 days), and a small disturbance area (approximately [REDACTED]).

To avoid impacts on San Joaquin kit fox, [REDACTED] will implement AMMs (described below) during project activities, including preconstruction surveys, establishment of exclusion zones if necessary, and monitoring by a biologist.

California Red-Legged Frog and California Tiger Salamander

California red-legged frog and California tiger salamander are listed as threatened under the ESA and California tiger salamander is also listed as threatened under CESA. The survey area is within the current range of California red-legged frog and California tiger salamander and annual grassland in and adjacent to the [REDACTED] mitigation site represents potential upland dispersal and estivation habitat for these species. The closest potential breeding habitat for California tiger salamander and California red-legged frog is 0.30 mile northwest of the [REDACTED] mitigation site at a perennial pond (Divide Reservoir) and 0.55 mile to the northwest within a seasonal cattle pond. California tiger salamander have been previously documented in the above referenced cattle pond and California red-legged frogs have been detected in a similar-sized reservoir 0.60 mile to the southeast (California Department of Fish and Wildlife 2018). Proposed [REDACTED] mitigation work will not affect aquatic breeding habitat for these species.

Based on the very small area of excavation ([REDACTED] diameter well), short duration of project activities (approximately 2 days), timing of ground disturbance (within the dry season), and the distance from known breeding sites, the proposed project is unlikely to encounter California red-legged frogs or California tiger salamanders during [REDACTED] mitigation activities.

To further reduce the potential to encounter California red-legged frog and California tiger salamander, AMMs (described below) will be implemented during project activities, including having a biologist onsite during work within suitable habitat and restricting activities to the dry season (May through October) or dry periods between rain events (less than 0.25 inch rain predicted within 48 hour period).

Alameda Whipsnake

Alameda whipsnake is listed as threatened under CESA and ESA and generally occurs in coastal scrub and chaparral communities, which are not present within the [REDACTED] mitigation site. The HCP maps grassland near the [REDACTED] mitigation site as movement habitat for Alameda whipsnake. The site is within a linkage corridor between [REDACTED] and the [REDACTED] [REDACTED] known to support populations of Alameda whipsnake. The closest known occurrences for Alameda whipsnake are 1.8 miles to the north and 4 miles to the southwest (California Department of Fish and Wildlife 2018).

Based on the lack of core habitat (low-growing shrub communities) in or near the [REDACTED] mitigation site, the short duration of construction activities (2 days), and limited area of disturbance ([REDACTED]), there is a low likelihood of encountering Alameda whipsnakes during project construction.

To avoid impacts on Alameda whipsnake, [REDACTED] will implement AMMs (described below) during project activities, including preconstruction surveys and monitoring by a biologist to avoid snakes.

Burrowing Owl

Western burrowing owl is designated as a state species of special concern and is protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFG) Section 3503.5. Grassland at and adjacent to the [REDACTED] mitigation site provides suitable nesting and wintering habitat for burrowing owls. No ground squirrel burrows or similar type burrows that could be used by burrowing owls were observed at or within 500 feet of the [REDACTED] mitigation site during the February 2018 field survey.

To avoid impacts on burrowing owl, [REDACTED] will implement AMMs (described below) during project activities, including preconstruction surveys, establishment of exclusion zones if necessary, and monitoring by a biologist.

Golden Eagle

The golden eagle is a state species of special concern and is protected under the federal Bald and Golden Eagle Protection Act. Golden eagle nests have not been previously documented within 0.5 mile of the [REDACTED] mitigation site, based on review of CNDDDB (California Department of Fish and Wildlife 2018). Potential nesting habitat is present in oak woodlands surrounding the site. No golden eagles or potential nests were observed within 500 feet of the [REDACTED] mitigation site during the February 2018 field survey.

To avoid impacts on nesting golden eagles, [REDACTED] will implement AMMs (described below) during project activities, including preconstruction surveys, establishment of exclusion zones if necessary, and monitoring by a biologist.

Ground-Nesting Migratory Birds

Grassland at the [REDACTED] mitigation site provides ground-nesting habitat for migratory birds. Vegetation removal and other construction activities during the breeding season (generally March 1 to August 31) could result in the mortality or disturbance of nesting birds in and adjacent to the construction

area. Disturbances that result in mortality of adults, loss of fertile eggs or nestlings, or other events that lead to nest abandonment are prohibited under the federal Migratory Bird Treaty Act and California Fish and Game Code.

To avoid impacts on nesting migratory birds, [REDACTED] will implement AMMs (described below) during project activities, including preconstruction surveys, establishment of exclusion zones if necessary, and monitoring by a biologist.

Avoidance and Minimization Measures

[REDACTED] or its contractor will implement the following AMMs prior to and during ground-disturbing activities to protect special-status species and aquatic resources.

1. A qualified biologist will conduct preconstruction clearance surveys for special-status wildlife, including San Joaquin kit fox, Alameda whipsnake, California red-legged frog, California tiger salamander, burrowing owl, golden eagle, and other nesting birds no more than 14 days prior to the commencement of construction activities and again immediately prior to daily ground disturbance (including staging and site preparation). If a special-status species is observed near the [REDACTED] mitigation site, a no-disturbance buffer will be established, as necessary. The extent of these buffers will be determined by a qualified biologist, with knowledge of the species, and will likely depend on the level of construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species.
2. All construction personnel shall receive environmental training prior to the commencement of construction activities. The avoidance and minimization measures will be outlined in the training. All personnel on the construction site shall follow these measures to avoid or reduce effects on special-status species. The training shall include a printed handout that will be handed to all personnel. All employees and contractors will be required to sign a sign-in sheet indicating that they attended the training and understand the material presented. The handout will contain the following information.
 - a. Descriptions of special-status species (including photographs) and their habitat needs.
 - b. An explanation of the protected status of each special-status species and legal obligations.
 - c. Avoidance and minimization measures that shall be followed to avoid and/or reduce impacts on the special-status species during all project activities and the penalties for not following the avoidance and mitigation measures.
 - d. Instructions on the procedures that will be implemented if a special-status species is found onsite, including contact information of a lead biologist.
3. A qualified biologist will monitor all ground-disturbing activities (i.e., grading, vegetation removal) that have the potential to impact a special-status species. The biologist will be given the authority to stop any work that may result in the take of state or federally listed species. Any special-status species encountered within the work area will be allowed to leave the area on its own without harassment.

4. When possible, ground-disturbing activities will be conducted during the dry season (generally May 1 – October 31). If it is not possible to perform the work in the dry season, rainy season work will be performed during dry spells between rain events after March 15. Ground disturbing work will be performed at least 48 hours after a rain event within 0.25 inch or more of rain and when less than 0.25 inch of rain is forecasted in the following 48 hour period.
5. Vehicle parking and ground disturbance will be minimized to the maximum extent practicable and confined to the designated work area and access route.
6. All construction activities will cease 0.5 hour before sunset and will not begin prior to 0.5 hour before sunrise.
7. To prevent inadvertent entrapment of special-status wildlife during construction, all excavated, steep-walled holes or trenches more than 6 inches deep will be provided with one or more escape ramps constructed of earth fill or wooden planks and will be inspected by a qualified biologist prior to being filled.
8. The onsite biological monitor will inspect open trenches, pits, and under construction equipment and material left onsite in the morning and evening to look for special-status wildlife that may have become trapped or are seeking refuge.
9. All workers will ensure their food scraps, paper wrappers, food containers, cans, bottles, and other trash from the project area are deposited in covered or closed trash containers to avoid attracting predators. The trash containers will be removed from the project area at the end of each working day.
10. Erosion control materials (combination of fiber rolls and sediment fencing) will be installed between the construction area and the adjacent ephemeral drainage. These materials will be free of monofilament plastic mesh or line and will be removed from the project site once the site is stabilized. All fiber materials used for erosion control will be certified as free of noxious weed seed.
11. To minimize the potential removal of special-status plants within suitable habitat (i.e., annual grassland), disturbance to, or removal of, vegetation will be limited to the minimum necessary to perform the work required.
12. During project excavation activities, the top 6 inches of topsoil will be removed and stockpiled separately so that the seedbank can be preserved and spread back on top of temporarily disturbed areas following construction activities.
13. Disturbed areas will be stabilized by compacting soils and re-contouring to pre-existing grades. Salvaged topsoil will be replaced over the disturbed area and reseeded with a California native seed mix consisting of California brome (*Bromus carunatus*), meadow barley (*Hordeum brachyantherum*), needlegrass (*Nassella pulchra*), and creeping wild rye grass (*Leymus triticoides*).

Conclusion

Annual grassland at the [REDACTED] mitigation site provides potential habitat for five special-status CNPS List 1B plant species (big tarplant, showy madia, Mt. Diablo fairy lantern, Brewer's dwarf flax, and Mt. Diablo buckwheat) and upland habitat for five special-status wildlife (California tiger salamander, California red-legged frog, burrowing owl, San Joaquin kit fox, and Alameda whipsnake (low potential)). None of the plant species are state or federally listed. Four of the five wildlife species are state and/or federally listed (as indicated above).

Given the grazing disturbance of the site, the small area of proposed ground disturbance ([REDACTED]), and minimal excavation ([REDACTED]), there is a low likelihood that special-status plants would be disturbed from project activities. If special-status plants are present within the work area, there could be trampling or crushing of plants; however, excavation activities would be minimal and there would be impacts on only a few plants at most. Stockpiling of topsoil will minimize disturbance of the existing seed bank.

Overall there is a low potential for special-status wildlife to be encountered at the [REDACTED] mitigation site based on the lack of burrows, very small area of excavation (10-inch diameter well), and short duration of project activities (approximately 2 days). Additionally, Shell will implement AMMs (listed above) to avoid any potential impacts on special-status wildlife, including retaining a qualified biologist to conduct preconstruction surveys and identify if any special-status species are present in the work area prior to commencing construction activities and to monitor construction activities to ensure that impacts to wildlife are avoided.

References

- California Department of Fish and Wildlife. 2018. California Natural Diversity Database, RareFind 5. Search of the Clayton and Antioch South USGS 7.5-minute Quadrangles. Sacramento, CA.
- East Contra Costa County Habitat Conservation Plan Association, 2006. *Final East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan*. San Jose, CA.