

## D. BIOLOGICAL RESOURCES

The Biological Resources section describes existing and potential impacts related to biological resources found at the Landfill. This section is based primarily on a peer review of biological reports submitted by the applicant, prepared for the expansion area by Althouse and Meade, Inc., a County-qualified biological consultant. The most comprehensive of these reports, the *Biological Report for the Cold Canyon Landfill: Proposed Expansion*, is included in Appendix C. The other reports, including wetland delineations, a protocol survey for California red-legged frog and an Obispo Indian Paintbrush Mitigation Monitoring and Reporting Plan (MMRP), referenced in this section are available for review at the County Department of Planning and Building. Additional fieldwork was also conducted by ~~SWCAMorro Group~~ to examine and verify existing conditions as described in the reports. This section describes impacts to biological resources and recommends mitigation measures to avoid or reduce those impacts to a less than significant level.

### 1. Existing Conditions

The expansion area occupies approximately 88 acres on moderate slopes with a southwestern aspect, above Highway 227 (refer to Figure V.D.-1). Topography varies from a gently sloped floodplain to moderately sloped, uneven foothills marked with shallow depressions and small swales. The expansion area is a portion of an old ranch; an abandoned greenhouse, building pad, shed, chicken coop, and several species of cultivated trees, shrubs, and vines remain from the previous land use. The expansion area also included an abandoned vineyard, grazed annual grassland, a small reservoir in an existing drainage, retention basins, wetland, and patches of oak woodland (refer to Figure V.D.-1). In the winter of 2007 the grape vines were removed and the area now includes non-native annual grasses and native and non-native forbs. Pasture on the expansion area is periodically grazed and occurs along gentle to moderate slopes adjacent to the drainage. Small patches of native perennial bunchgrasses occur within grasslands in the expansion area. One rare plant subspecies, Obispo Indian paintbrush, was observed during surveys of the expansion area in 2006 in patches along the perimeter of the vineyard and in grazed grassland.

In the expansion area, 85 mature live oaks are present. Wetlands occur in the expansion area, and three wetland delineations have been prepared in recent years to show the location and extent of potential jurisdictional federal and state wetlands and other waters (Morro Group, 2000, 2005; Althouse and Meade, 2007b). Wetland habitat on the property in 2007 was observed to include small patches of isolated seasonal slope wetlands that occur along the lower hill slopes. These wetland patches did not appear to hold surface water in 2000, 2005, and 2006. Wetlands also occur intermittently within the drainage, which is a tributary to Canada Verde Creek, the east fork of Pismo Creek. Mature arroyo willows are scattered along banks in the drainage, and form a closed canopy near Highway 227 where the channel opens into a gently sloping floodplain. Many species of common wildlife including western fence lizard, Pacific chorus frog, pocket gopher, California ground squirrel, and mule deer were observed on the site. Several birds were observed roosting or nesting on the subject site, including lark sparrow, great horned owl, American robin, and California towhee.

## 1) Soils

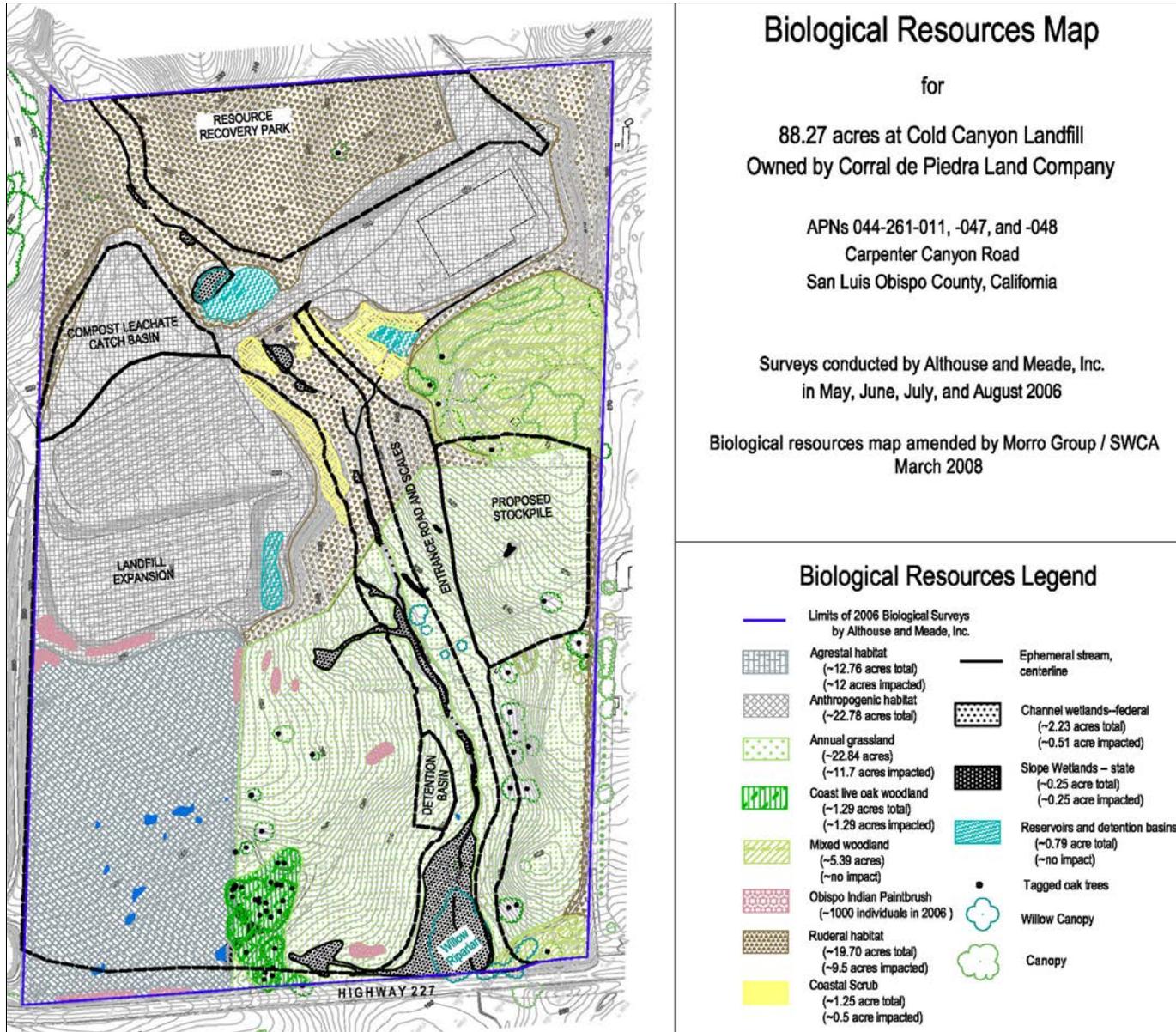
The soils map in the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Soil Survey of San Luis Obispo County, California, Coastal Part (1984) delineates three soil map units on the property (refer to Section V.B., Agricultural Resources, Figure V.B.-1). NRCS soil maps identify the dominant soil map units most likely to be at a given location, thus providing useful information for identifying likely locations for potential rare plant habitats; however, the intricate geology and soils of California together with the coarse scale of the NRCS maps for San Luis Obispo County may limit the accuracy of these surveys with regard to soil conditions on a specific site. Complete descriptions of the three soil types on the proposed expansion area are in Section V.B., Agricultural Resources. Soil conditions observed onsite were generally consistent with mapped soils, except where disturbed by recent human activities, including grading for the composting operation and construction of the Materials Recovery Facility.

Althouse and Meade characterized six habitat types on the expansion area, including agrestal (abandoned vineyard), grazed annual grassland, ruderal, anthropogenic, coast live oak woodland, and wetlands and other waters with willow riparian habitat. Biological resources, including habitats, rare plants, and wetlands, as well as a map of predicted impacts to biological resources, were mapped and are shown in Appendix C. These habitat types were verified by ~~Morro Group~~ SWCA during a site visit in March 2008. During this field visit, ~~Morro Group~~ SWCA characterized an additional habitat type, coastal scrub. An updated Habitat and Impacts Map is included as Figure V.D.-1. Photos of the expansion area are provided in Appendix C.

### (a) Agrestal (Abandoned Vineyard)

Approximately 13 acres of the expansion area consist of abandoned grapevines and weedy annual and biennial vegetation. The vines were removed in early 2007. Annual grassland weeds were observed to dominate areas between vine rows. Dominant grasses included non-native annual grass species such as soft chess brome, wild oats, foxtail barley, and rat-tail fescue. Mustards, sour dock, and rose clover are also present. Most agrestal habitat on the property supports tall, dense, weedy vegetation unsuited to supporting rare native species known from grasslands in the vicinity. Agrestal habitat typically does not represent ideal habitat for sensitive plant or wildlife species, but may support occasional foraging habitat for birds and raptors (birds of prey), and foraging habitat for small mammals and predators such as red-tailed hawk and coyote. One rare plant, Obispo Indian paintbrush, was observed among shorter grasses and annual herbs at the margins of the vineyard area in 2006 and 2007. This special-status plant species was also present in annual grassland on the property.

The existing conditions for agrestal habitat onsite were verified by ~~Morro Group~~ SWCA in March 2008. This area had essentially undergone successional changes to become annual grassland, dominated by ripgut brome and various forbs. No Obispo Indian paintbrush plants were observable during the field verification.



Source: Althouse and Meade (2007a) and supplemental Morro Group field surveys in March 2008.

Updated Habitats and Impacts Map  
Figure V.D.-1

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(b) Ruderal

Ruderal vegetation is usually found in disturbed areas that have been significantly altered by construction, landscaping, or other types of land-clearing activities. Ruderal habitats often occur along roadsides and fence-lines, near developments, and in other areas experiencing severe ground surface disturbance. Plants found within this habitat are typically introduced Mediterranean species that exhibit clinging seeds, adhesive stems, and rough leaves that assist their invasion and colonization of disturbed lands. Ruderal areas with compacted or otherwise disturbed soils typically do not typically support habitat for sensitive plant species, although Pismo clarkia and Obispo Indian paintbrush have been found in ruderal habitats in San Luis Obispo County.

Approximately 21 acres of open hillsides north of the ~~existing~~ former compost operation (CO) and the Materials Recovery Facility (MRF) are dominated by non-native herbaceous weeds. The hills support two isolated, mature coast live oaks with annual grasses, milk thistle, and Italian thistle in the understory. Past and ongoing disturbances, including an abandoned unpaved road, stockpiling of raw greenwaste, and compost operations may have contributed to conditions favoring a ruderal community at this location. Surrounding hillsides include dense herbaceous weeds, including black mustard, ripgut brome, Italian thistle, perennial mustard, prickly lettuce, bristly ox-tongue, wild radish and milk thistle. These existing conditions for ruderal habitat onsite were re-examined by ~~Morro Group~~ SWCA in March 2008. ~~Morro Group~~ SWCA characterized approximately 1.25 acres of coastal scrub habitat in areas formerly mapped as ruderal habitat in previous reports.

(c) Coastal Scrub

Coastal scrub communities support shrubs that are one to two meters high, typically characterized by species such as coyote brush, California sagebrush, sage, and bush monkeyflower. The understory of coastal scrub habitats may be sparse to moderately dense and often is composed of annual grasses or forbs. Coastal scrub habitat dominated solely by coyote brush scrub and an understory characteristic of annual grasslands occurs on the site primarily south of the access road leading to the MRF. Coastal scrub provides habitat for a number wildlife species, including western fence lizard, various bird species, and rabbits.

(d) Grazed Annual Grassland

Althouse and Meade (2007a) mapped approximately 23 acres of grazed annual grassland along gentle to moderate slopes adjacent to the drainage. Most annual grassland in the expansion area is grazed periodically. Small patches of a native perennial bunchgrasses, nodding needlegrass occur within grasslands in the expansion area; however, the dominant species observed within grassland habitat in the expansion area included non-native annual grasses such as wild oat, quaking grass, soft chess brome, foxtail barley, and Italian rye. Warm-season herbaceous annuals, including western ragweed and dove weed, were also common. Native annual wildflowers and bulbs observed scattered within annual grassland habitat onsite included common brodiaea, California poppy, suncups, and miniature lupine. Obispo Indian paintbrush was also observed in grazed grassland and appears to be most successful in locations in the expansion area that are not choked with tall weeds, such as grazed grassland and margins of unpaved roads.

The existing conditions for grazed annual grassland habitat onsite were re-examined by ~~Morro Group~~ SWCA in March 2008. During this time, annual grassland in the eastern portion of the proposed expansion area was observed to be dominated by annual grasses such as ripgut brome and wild barley, and various forbs such as red-stem filaree, red maids, lotus, fiddleneck, clover, lupine, and sour dock. No Obispo Indian paintbrush plants were observable in this area during the field verification; however, that field work was done prior to the blooming period. Obispo Indian paintbrush was observed onsite during 2005 field work performed by ~~Morro Group~~ SWCA biologists in preparation of a previous wetland delineation on the expansion site.

(e) Coast Live Oak Woodland

An area of coast live oak woodland adjacent to the former vineyard site includes over 30 coast live oak trees averaging 16 inches diameter at breast height (dbh). These trees range from six to 73 inches dbh. Coast live oak woodland occupies approximately 1.3 acres of the 88 acre expansion area. Multiple mature coast live oaks, in good condition, also grow in small stands scattered about the expansion area. In some areas, these stands of trees function as woodland; in other locations, individual oaks persist in open savanna. In addition, approximately 5.4 acres of mixed woodland are present on a knoll with small abandoned structures just south of the MRF. Mixed woodland is not dominated by coast live oaks; instead, abandoned ornamental trees and shrubs are intermixed with mature coast live oaks. Mature coast live oaks over 50 inches dbh are present. Barn owls and great horned owls were observed roosting in oak trees throughout the expansion area.

The existing conditions for coast live oak woodland habitat in the expansion area, as well as the number of individual oaks in the proposed expansion area, were verified as accurate by ~~Morro Group~~ SWCA in March, 2008. During this time, a great horned owl was observed roosting in this oak woodland habitat.

(f) Wetlands, Waters, and Riparian Habitats

Wetlands, other waters, and aquatic habitats on the expansion area include isolated slope wetlands, an ephemeral drainage with seasonal wetlands, willow riparian habitat, reservoirs, and retention basins. Channel banks and portions of the streambed support a mixture of annual and perennial wetland vegetation, including mature willows. Wetlands also occur in hydrologically connected swales that feed the ephemeral stream during storms. Small, patchy slope wetlands were observed to be dominated by a single hydrophytic species, flat-stem rush (*Juncus phaeocephalus*), scattered in the abandoned vineyard and on slopes well away from the stream channel. Wetlands provide habitat for amphibians and invertebrates as well as hydrophytic (“water-loving”) plant species. The most recent delineation of potential jurisdictional wetlands in the expansion area was completed in 2006 and submitted to the Corps for verification in 2007 (Althouse and Meade, 2007b).

Isolated Slope wetlands

Slope wetlands occur on the expansion area, in shallow depressions and from saturated return flow seeps along lower hillsides (Althouse and Meade, 2007b). In these isolated shallow depressions and seeps, wetland vegetation is composed of primarily flat-stem rush, with occasional individuals of Mediterranean barley, toad rush, and loosestrife. Non-native annual

grasses and herbs including soft chess brome, ripgut brome, and wild radish form a dense ring of vegetation around these isolated patches of seasonal wetland.

In July 2006, slope wetlands were observed to be present on approximately 0.25 acre of the property (Althouse and Meade, 2007b). An Army Corps of Engineers (ACOE) representative visited the site on April 4, 2007 and verbally verified the delineation (Althouse and Meade, 2007b). In March 2008, the size and distribution of slope wetlands dominated by flat-stem rush was observed to slightly differ from that delineated in Althouse and Meade (2007b); however, this is to be expected, as the distribution of hydrophytic plant species such as flat-stem rush is likely to vary seasonally based on water availability, soil saturation, temperature, and several other factors.

#### Ephemeral Stream Channel with Seasonal Wetlands

An un-named ephemeral stream flows through the expansion area, connecting to Canada Verde Creek (the east fork of Pismo Creek), just west of Highway 227. The drainage supports ephemeral flows during storms, and includes several small pools that hold water into late spring. The drainage varies from a narrow channel within deeply incised banks in the upper drainage to nearly flat, weakly defined braided channels under willow canopy in the floodplain. Logs and rootwads placed in the drainage have exacerbated bank erosion in some locations. Approximately 2.2 acres of wetlands along and within the stream channel are more diverse and provide higher-quality habitat than slope wetlands in the expansion area. A mixture of annual and perennial species, including arroyo willows, sedges, spikerush, flat-stem rush, rabbit's-foot grass and curly dock are present in channels and adjacent wetland, forming multiple layers of vegetation in some locations. These existing conditions for the ephemeral stream channel and seasonal wetlands onsite were verified as accurate by ~~Morro Group~~ SWCA in March 2008.

#### Willow Riparian Habitat

Arroyo willow shrubs and small trees are present in and along the drainage, forming a dense canopy on the floodplain near the southwest edge of the expansion area. Although surface water dries in late spring, soils remain moist into July in this approximately 0.85-acre thicket of mature willows. The willow thicket provides excellent nesting habitat for many bird species, including robins and towhees, which were nesting in willows on the property in 2006. These existing conditions for willow riparian habitat onsite were verified as accurate by ~~Morro Group~~ SWCA in March 2008.

#### Pond Aquatic Habitat

One perennial pond and two seasonal detention basins are present in the expansion area. A reservoir located within the ephemeral stream channel holds water throughout the year. A retention basin downhill of the MRF holds surface water seasonally, drying in summer. In addition, small pools within the stream channel hold water into late spring. Water level in the approximately 0.43-acre reservoir (surface area at capacity) is supplemented with pumped groundwater. Water from the pond is then used to fill water trucks for dust control. Water levels fluctuate on a daily basis. Above the maximum capacity level of the pond, willows are present on the northern shore, near the inlet. Cattails seasonally occupy the pond perimeter. Other areas of the shore support weedy vegetation, primarily black mustard, perennial mustard, and wild

radish. Although this pond is disturbed on a regular basis, bullfrogs and several species of birds, including mallard, barn swallows, and killdeer, were observed in this habitat. The pond also provides moderate potential breeding habitat for federally threatened California red-legged frogs. A 0.16-acre detention basin adjacent to existing sort facilities holds shallow surface water during the wet season, drying in late spring. Stormwater runoff from the MRF, road, and parking area flow into the retention basin, where sediment settles from stormwater before it flows over a concrete spillway and joins the ephemeral stream. The basin is partially vegetated with facultative and hydrophytic wetland plants, including Fremont cottonwood, barnyard grass, smartweed, cattails, and rabbit's-foot grass. A 0.21-acre detention basin adjacent to ~~existing~~ the former compost operation holds shallow standing water during the wet season. This basin also traps runoff and leachate from composting operations. It supports patches of facultative and hydrophytic species, including occasional cattails, rabbit's-foot grass, and willow herb. Both seasonal pools provide moderate seasonal breeding habitat for common amphibians, such as western and Pacific chorus frog, and could be used seasonally by California red-legged frogs.

The existing conditions for pond aquatic habitat onsite were verified as accurate by ~~Morro~~ Group SWCA in March, 2008. During this time, red-winged black birds and American coots were observed in an around the 0.43-acre reservoir. No frogs or pond turtles were observed.

### (g) Anthropogenic Habitat

Approximately 23 acres of anthropogenic (man-made) habitat is divided among three primary uses: the former CO, the MRF, and roads with parking. The daily noise and human presence between approximately 7:00 a.m. and 5:00 p.m. is likely to limit wildlife use of anthropogenic habitats during daytime hours; however, several mammals, including rats, mice, ground squirrels, feral cats, raccoons, skunks, and opossums, are likely to forage in anthropogenic habitat during evening and night hours.

### 3) Species Observed

147 species of plants were identified in the expansion area, consisting of 47 native species and 100 introduced species (refer to Appendix C, Table 4.). Althouse and Meade estimated that 73 animal species were observed or could occur on or near the expansion area, including five amphibians, seven reptiles, 45 birds, and 16 mammals (refer to Appendix C, Table 5). Grassland habitat provides foraging habitat for raptors and predators, including red-tailed hawk, barn owl, great horned owl, white-tailed kite, American kestrel, red fox, coyote, and bobcat. Peregrine falcons are known to hunt at the Landfill. Reptiles likely to occur in all habitats at the Landfill include gopher snake, California kingsnake, southern alligator lizard, and western fence lizard. Opossum and striped skunk may also forage at the Landfill. Nesting birds occur in the oak trees and grassland habitats; large oaks immediately adjacent to the expansion area are potential nesting sites, as, well.

## 2. **Special-status Species and Sensitive Natural Communities**

For the purposes of this EIR, “special-status species” is a term synonymous with “sensitive species,” and is defined as plants and animals that are:

- Species afforded protection under the Federal Endangered Species Act (FESA) and/or California Endangered Species Act (CESA);
- Species proposed for listing under the FESA and/or CESA;
- Species afforded protection under sections of the California Fish and Game Code;
- Birds afforded protection under the Migratory Bird Treaty Act (MBTA) of 1918;
- Species considered California Special Concern species or Special Animals (California Department of Fish and Game [CDFG], 2007) in the California Natural Diversity Database (CNDDDB);
- Plants considered sensitive by the California Native Plant Society (CNPS);
- Species that meet the definitions of rare or endangered species under CEQA; and,
- Species considered sensitive by local resource groups/agencies or the scientific community;

Sensitive natural communities including habitats listed by the CDFG (Holland, 1986) or the CNDDDB (2007, 2008) as meriting protection or further study due to their rarity or value have also been considered.

a. Special-status Species Considered

Special-status species considered for this EIR include those species previously considered by Althouse and Meade (refer to Appendix C), and additional species not included in their report that have been documented in CNDDDB records within the Arroyo Grande NE USGS quadrangle and the seven surrounding quadrangles. Also included are federally listed species in San Luis Obispo County with potential to occur in or near the Landfill (U.S. Fish and Wildlife Service [USFWS], 2008).

A total of 107 special-status taxa (taxonomic categories of classification for organisms, such as genus, species, and sub-species) have been considered for this EIR. In Appendix C, Tables C-1 (plants) and C-2 (animals) includes the names for all special-status species considered for this EIR as a result of a comprehensive literature search and surveys. Information regarding the typical blooming period for plant species, habitat preference, potential for habitat at the expansion area, whether or not the species was observed in the expansion area, and the effect of the proposed activity are also provided.

A total of 74 special-status taxa were originally considered by Althouse and Meade (2007a), based on current CNDDDB information, the CNPS On-line Inventory, and Althouse and Meade biologists' knowledge of the Landfill area. An additional eight special-status plant taxa and 16 animal taxa were included for consideration in this EIR based on an updated and expanded CNDDDB search (CNDDDB, 2008). Three additional federally listed plant species and four federally listed animal species were included for consideration based on the list in USFWS (2008). The two-striped garter snake and the "other nesting birds" taxa were added for consideration, based on the presence of riparian habitat and nesting habitat that are present within the expansion area.

### 1) Special-status Plants Considered

A total of 59 special-status plant taxa in (refer to Appendix C, Table C-1) were considered for potential of occurrence in this EIR. Of these, ten special-status plant taxa were determined to have suitable habitat conditions within the expansion area. Floristic surveys by Althouse and Meade in 2006 and 2007 confirmed the presence of one of these special-status plant species, Obispo Indian paintbrush, in the expansion area.

### 2) Special-status Animals Considered

A total of 48 special-status animal taxa (refer to Appendix C, Table C-2) were considered for potential of occurrence in this EIR. Of these, 14 special status animal taxa were determined to have suitable habitat conditions within the expansion area. For the purposes of impact assessment, suitable habitat for birds was determined to be present if suitable nesting or wintering habitat occurred within the expansion area. Wildlife surveys by Althouse and Meade in 2006 and 2007 confirmed the presence of two special-status animal species, American peregrine falcon and loggerhead shrike (*Lanius ludovicianus*). Protocol California red-legged frog surveys conducted in 2006 and 2007 produced negative findings, with no California red-legged frogs observed in the expansion area (Althouse and Meade, 2007d).

#### b. Sensitive Natural Communities Considered

Sensitive natural communities considered for this EIR include the five communities previously considered by Althouse and Meade (refer to Appendix C, Table C-3). None of these natural communities were documented to occur within the expansion area.

#### c. Special-status Plant Species with Suitable Habitat in the Expansion Area

Suitable habitat for ten special-status plants occurs in the expansion area. One rare plant, Obispo Indian paintbrush, was identified in the expansion area in May, 2006. All rare plant locations identified on the property are plotted on Figure V.D.-1. Descriptions of the following special-status plant species with suitable habitat within the expansion area are included in Appendix C:

- Hoover's bent grass (*Agrostis hooveri*)
- Wells' manzanita (*Arctostaphylos wellsii*)
- San Luis Obispo mariposa lily (*Calochortus simulans*)
- Cambria morning-glory (*Calystegia subacaulis* ssp. *episcopalis*)
- Obispo Indian paintbrush (*Castilleja densiflora* ssp. *obispoensis*)
- Straight-awned spineflower (*Chorizanthe rectispina*)
- Pismo clarkia (*Clarkia speciosa* ssp. *immaculata*)
- Leafy tarplant (*Deinandra increscens* ssp. *foliosa*)
- San Luis Obispo County lupine (*Lupinus ludovicianus*)
- Black-flowered figwort (*Scrophularia atrata*)

#### d. Special-status Animal Species with Suitable Habitat in the Expansion area

Suitable habitat for 14 special-status animal taxa occurs in the expansion area. Peregrine falcon and loggerhead shrike were observed foraging in the expansion area in 2006; however, nesting habitat for peregrine falcons is not present on the property and this species is not expected to be

impacted by the proposed project. Descriptions of the following special-status animal species with suitable habitat within the expansion area are included in Appendix C:

- California red-legged frog (*Rana aurora draytonii*)
- Southwestern pond turtle (*Actinemys [=Emys] marmorata pallida*)
- Silvery legless lizard (*Anniella pulchra pulchra*)
- Sharp-shinned hawk (*Accipiter striatus*)
- Ferruginous hawk (*Buteo regalis*)
- White-tailed kite (*Elanus leucurus*)
- Peregrine falcon (*Falco peregrinus*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Other nesting birds
- Pallid bat (*Antrozous pallidus*)
- Townsend's big-eared bat (*Corynorhinus townsendii*)
- Western red bat (*Lasiurus blossevillii*)
- Western mastiff bat (*Eumops perotis californicus*)
- American badger (*Taxidea taxus*)

e. Special-status Species without Suitable Habitat in the Expansion area

The remaining special-status species and five sensitive natural communities listed in Appendix C, Tables C-1 through 3, are not expected to occur in the property due to the absence of required soil types, lack of appropriate habitat, or because the expansion area is substantially outside the known range of these species.

### 3. Regulatory Setting

a. Federal Policies and Regulations

1) Section 404 of the Clean Water Act

Regulatory protection for water resources throughout the United States is under the jurisdiction of ACOE. Section 404 of the Clean Water Act (CWA) prohibits the discharge of dredged or fill material into "waters of the U.S." without formal consent from the ACOE. Waters of the U.S. fall under the jurisdiction of ACOE and include wetlands, which include all three wetland parameters (hydrology, hydrophytic vegetation, and hydric soils), and "other waters," which typically lack one or more of these three parameters and exhibit what is known as an "ordinary high water mark" (OHWM). Under CWA Section 404, actions in waters of the U.S. may be subject to either an individual permit or a general permit, or may be exempt from regulatory requirements. Some activities have been given blanket authorization under the provisions of a general permit through the Nationwide Permit (NWP) system.

For the purposes of this project, it is likely that any activities resulting in the discharge of dredged or fill material into jurisdictional areas delineated by Althouse and Meade (2007b) would require a CWA Section 404 permit. According to Althouse and Meade (2007b), Mr. Bruce Henderson of the ACOE conducted a field visit of the expansion area with the following jurisdictional determination:

- Mr. Henderson states that this reach does not have a clear OHWM, and is not jurisdictional.
- Likewise, two erosion features on the unpaved road at the north corner of the property (unlabeled tentative channel features shown on the wetland delineation map) are not jurisdictional.
- Areas 1 through 9, 11, 14, and 15 are not federal jurisdictional wetlands. They are slope wetlands not adjacent to jurisdictional water or wetlands of the U.S.
- The drainage ditch adjacent to the existing MRF (unlabeled on map) was confirmed as a non-jurisdictional man-made ditch.

The remaining wetlands and channel reaches shown on the delineation fall under ACOE current jurisdiction for permitting.

## 2) Section 401 of the Clean Water Act

CWA Section 401 and its provisions ensure that federally permitted activities comply with the CWA and state water quality laws. Section 401 is implemented through a review process that is conducted by the Regional Water Quality Control Board (RWQCB), and is triggered by the Section 404 permitting process. The RWQCB certifies via the Section 401 Water Quality Certification process that a proposed project complies with applicable effluent limitations, water quality standards, and other conditions of California law. If the proposed project would require a CWA Section 404 permit, a CWA Section 401 Water Quality Certification would also be required.

## 3) Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 (50 CFR 17) provides legal protection for plant and animal taxa that are in danger of extinction, and classified as either threatened or endangered. FESA requires federal agencies to make a finding on all federal actions, including the approval by an agency of a public or private action, such as the issuance of an ACOE permit under CWA Section 404, as to the potential to jeopardize the continued existence of any listed species potentially impacted by the action.

Section 9 of FESA protects federally listed plant and animal species from unlawful take. “Take” is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” USFWS regulates activities that may result in “take” of listed species. Impacts to listed species resulting from the implementation of a project would require the responsible agency or individual to formally consult with the USFWS to determine the extent of impact to a particular listed species.

FESA also requires the federal government to designate “critical habitat” for any species it lists under FESA. “Critical habitat” is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and, (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. Under Section 7, all federal agencies must ensure that any actions they authorize, fund, or carry out are not likely to

jeopardize the continued existence of a listed species, or destroy or adversely modify its designated critical habitat.

No federally listed species would be subject to “take” or are otherwise expected to be impacted by the proposed project. No federally designated critical habitat units would be impacted by the proposed project.

#### 4) Migratory Bird Treaty Act

The Federal MBTA protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to end the commercial trade in bird feathers popular in the latter part of the 1800s. The MBTA is enforced by the USFWS, and potential constraints to species protected under this law may be evaluated by the regulatory agencies during the environmental review process. Pre-construction nest surveys are typically required by regulatory agencies if potential nesting habitat would be impacted by a proposed project, and active nests within the project area must be avoided during the course of construction.

### b. State Policies and Regulations

#### 1) California Endangered Species Act

California has a parallel mandate to FESA, which is embodied in CESA and the Native Plant Protection Act (NPPA) of 1977. The CESA ensures legal protection for plants listed as rare or endangered, and wildlife listed as threatened or endangered. CDFG regulates activities that may result in the “take” of such species. CDFG also maintains a list of California Species of Concern (CSC) species based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, CDFG is empowered to review projects for their potential to impact state-listed species and CSC species.

Certain plants are listed as rare or endangered by the CNPS, but have no designated status under CESA; however, CDFG has authority during the CEQA process to review potential impacts to rare plant species and require mitigation to reduce the level of significance. The CEQA Guidelines, Section 15065 (“Mandatory Findings of Significance”) requires that a reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 (“Rare or endangered species”) provides for assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the CNPS Lists 1A, 1B, and 2 are typically considered under CEQA, and project-related impacts to special-status plant species must be mitigated under CEQA.

Take of state-listed species and/or impacts to their habitat would require a Section 2081 incidental take permit from CDFG. This process requires submittal of a sensitive species study and permit application package, and is similar to the FESA regulatory process, except that CDFG is the regulatory and decision-making agency. A CDFG Section 2081 Permit typically has mitigation requirements similar to a federal USFWS Biological Opinion. No state listed species would be subject to “take” or are otherwise expected to be impacted by the proposed project.

## 2) Fish and Game Code Section 1602

Section 1602 of the Fish and Game Code requires any person, state or local government agency, or public utility proposing a project that may impact a river, stream, or lake to notify the CDFG before beginning the project. If activities would result in the diversion or obstruction of the natural flow of a stream, or substantially alter its bed, channel, or bank, or adversely affect existing fish and wildlife resources, a Streambed Alteration Agreement is required. A Streambed Alteration Agreement lists the CDFG conditions of approval relative to the proposed project, and serves as an agreement between an applicant and the CDFG for a term of not more than five years for the performance of activities subject to this section. CDFG jurisdiction typically extends from the thalweg (low point) of a stream or lake to the top of bank or outer edge of riparian vegetation (whichever is greater). Based on the project description, it appears that the proposed project would impact drainage features considered jurisdictional by CDFG and would require a Section 1602 Streambed Alteration Agreement.

## 3) Other Sections of the Fish and Game Code

California Fish and Game Code Section 3503 includes provisions to protect the nests and eggs of birds. Section 3513 requires State of California compliance with the Federal MBTA. Sections 3511, 4700, 5050, and 5515 include provisions to protect Fully Protected species, such as 1) prohibiting take or possession “at any time” of the species listed in the statute, with few exceptions; 2) stating that no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to “take” the species; and, 3) stating that no previously issued permits or licenses for take of the species “shall have any force or effect” for authorizing take or possession. The CDFG is unable to authorize incidental take of Fully Protected species when activities are proposed in areas inhabited by those species. Any project-related activities that could result in take of any Fully Protected species, such as white-tailed kite, would need to be completely avoided.

## 4) Senate Bill 1334

Under SB 1334 county governments are responsible for conserving oak woodlands within their jurisdiction. During the CEQA review process, SB 1334 requires County governments to determine if a proposed project would result in the conversion of oak woodland. If the County determines that the proposed project would result in the conversion of oak woodland, the County is mandated to require implementation of specified mitigation as outlined in an oak woodland management plan. In San Luis Obispo County, oak woodlands are defined as areas containing greater than ten percent oak canopy cover. The County of San Luis Obispo oak management plan defines conversion as cutting or removing ten percent or more of the oak woodland canopy or removing more than ten oak trees. The proposed project would result in the conversion of oak woodland; therefore, it is subject to mitigation as mandated by SB 1334 and the County oak management plan.

SB 1334 also provides guidelines to assist jurisdictions in determining appropriate mitigation for impacts to oak woodlands. Specifically, the bill does not allow impacts to oak woodlands to be mitigated fully only through replacement of the removed trees. Replacing oak trees may only be considered mitigation for up to half of the total impact. Additional mitigation must also be included to address the balance of tree impacts. This mitigation may take the form of a

conservation easement or through payment of in-lieu fees to an entity such as the Wildlife Conservation Board Oak Woodland Conservation program.

**c. Local Policies and Regulations**

Pertaining to biological resources, the project must be consistent with the County of San Luis Obispo General Plan and must remain in compliance with relevant ordinances involving biological resources.

**4. Thresholds of Significance**

Impacts to biological resources were evaluated by determining the sensitivity, significance, or rarity of each resource that would be adversely affected (either directly or indirectly) by the proposed project, and by using thresholds of significance to determine if the impact constitutes a significant impact. The significance threshold may be different for each habitat or species and is based upon the rarity or sensitivity of the resource and the level of impact that would result from the proposed project. Guidance for determining significance thresholds is based on Appendix G of the CEQA Guidelines and local/regional general plans and ordinances. Using these guidelines, implementation of the proposed project would have a significant impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFG or the USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFG or USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act;
- Interfere substantially with the movement of any resident or migratory species of wildlife, wildlife corridors, or wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan; and
- Impact oak woodlands as defined by SB1334.

**5. Impact Assessment and Methodology**

Impact assessment focused on identifying potential project-related impacts that could result from the implementation of the proposed project. This assessment was based on details presented within the project description (refer to Section III), the results presented by Althouse and Meade (refer to Appendix C), and field verification by ~~Morro Group~~ SWCA staff.

Potential impacts are expected to occur where proposed construction activities and the day-to-day operations of the Landfill expansion would result in temporary or permanent modification of habitats that could be used by special-status species or are otherwise subject to regulatory law. The effect of the proposed project on biological resources depends in part on specific design and placement of proposed roads and structures. Analysis of impacts to biological resources is based on the proposed location of Landfill expansion, and conceptual design of entrance roads and support facilities using August, 2006, and May, 2007, excavation plans prepared by Shaw Environmental. Impacts to biological resources within the expansion area were evaluated by determining the sensitivity, significance, or rarity of each resource that would be adversely affected by the proposed project, and thresholds of significance were applied to determine if the impact constituted a significant impact. The significance threshold may be different for each habitat or species and is based on the resource's rarity or sensitivity, and the level of impact that would result from the proposed project. Where potential project-related impacts to sensitive resources were identified, measures for avoiding or minimizing adverse effects to these resources were recommended.

## 6. Project-specific Impacts and Mitigation Measures

Potential impacts were identified where proposed construction and operation activities would result in temporary or permanent modification of habitats that could be used by special-status species. Potential impacts were also identified for proposed activities could result in direct "take" of special-status species. Where potential project-related impacts to biological resources were identified, measures for avoiding or minimizing adverse effects to these resources have been recommended in the following sections.

### a. Habitat Impacts

Direct and permanent impacts to various habitats are expected to result from earthmoving activities associated with the proposed expansion. A discussion of impacts to habitats follows, and anticipated impacts to habitats are shown in Figure V.D.-1.

#### 1) Agrestal (Abandoned Vineyard)

The proposed project would result in the loss of approximately 12 acres of agrestal habitat occurring on moderate slopes. Agrestal habitat in the expansion area contains one rare plant species, Obispo Indian paintbrush, and has the potential to support one special animal, American badger. Impacts to agrestal habitat are not significant except where occurrences of special-status species are involved. Impacts to these two special-status species potentially occurring within agrestal/annual grassland habitat are considered separately in Section 6.a.(4). Impacts associated with the loss of 12 acres of agrestal habitat are considered *less than significant (Class III)* and do not require any mitigation.

#### 2) Ruderal

The proposed expansion of the Resource Recovery Park (RRP) would result in the loss of approximately 9.5 acres of ruderal habitat occurring on moderate slopes. Impacts associated with the loss of 9.5 acres of ruderal habitat dominated by non-native herbaceous weeds are considered *less than significant (Class III)* and do not require any mitigation.

### 3) Coastal Scrub

The proposed expansion would result in the loss of approximately 0.5 acre of coastal scrub habitat. Impacts associated with the loss of this habitat dominated solely by coyote brush and lacking sensitive species are considered *less than significant (Class III)* and do not require mitigation.

### 4) Annual Grassland

The proposed expansion would result in the loss of approximately 11.7 acres of annual grassland habitat. Additionally, several small discontinuous patches of native perennial bunch grasses would be removed. The use of these species in revegetation and landscaping plans is recommended but not specifically considered a required mitigation measure. Impacts to annual grassland habitat are not significant except where special status species are involved. Annual grassland habitat on the property harbors one rare plant species, Obispo Indian paintbrush, and has the potential to support one special animal, American badger. Impacts for special-status species are addressed in Section 6.d. Impacts to grassland habitat due to the loss of approximately 12 acres annual grassland habitat are considered *less than significant (Class III)*.

### 5) Coast Live Oak Woodland

The proposed expansion would result in the loss of approximately 1.3 acres of remnant coast live oak woodland habitat. Within this woodland, a total of approximately 30 coast live oak trees greater than 5 inches dbh would be removed, depending on final plans for widening Highway 227. Impacts to individual isolated oak trees occurring within annual grassland habitat are considered separately in Section 6.b.

**BR Impact 1      The proposed project would result in the loss of approximately 1.3 acres of oak woodland habit containing approximately 30 mature coast live oaks.**

BR/mm-1      ~~At the time of application for the grading permit~~Prior to issuance of the Notice to Proceed, the applicant shall submit an Oak Woodland Protection and Restoration Plan to be reviewed and approved by the County Department of Planning and Building. Oak woodland restoration shall be accomplished through one of three methods: 1) replanting of oak trees removed from the oak woodland, 2) providing for the protection of oak woodland habitat in perpetuity through acquisition or donation of a conservation easement that includes at least 2,000 square feet per tree removed; 3) providing funds to the California Wildlife Conservation Board to be used for the purchase of Oak Woodland Conservation Easements. If Method 1 is selected, it may account for no more than 50% of the required mitigation required for oak woodland impacts and mitigation measures BR/mm-2 would apply. Method 3 shall only be allowed if it is clearly infeasible to accomplish Methods 1 and 2.

BR/mm-2      The Oak Woodland Protection and Restoration Plan shall include the following:

- a. For onsite planting and protection purposes, oak trees removed shall be replaced at a minimum 4:1 ratio, and impacted trees shall be replaced at a 2:1 ratio.
- b. Replacement oak trees shall be from regionally or locally collected seed stock grown in vertical tubes or deep one-gallon tree pots. Four-foot diameter shelters shall be placed over each oak tree to protect it from deer and other herbivores, and shall consist of 54-inch tall welded wire cattle panels (or equivalent material) and be staked using T-posts. Wire mesh baskets, at least two feet in diameter and two feet deep, shall be use below ground. Planting during the warmest, driest months (June through September) shall be avoided. The plan shall provide a species-specific planting schedule. If planting occurs outside this time period, a landscape and irrigation plan shall be submitted prior to permit issuance and implemented upon approval by the county.
- c. Replacement oak trees shall be planted no closer than 20 feet on center and shall average no more than four planted per 2,000 square feet. Trees shall be planted in random and clustered patterns to create a natural appearance. As feasible, replacement trees shall be planted in a natural setting on the north side of and at the canopy/dripline edge of existing mature native oak trees; on north-facing slopes; within drainage swales (except when riparian habitat present); where topsoil is present; and away from continuously wet areas (e.g., lawns, irrigated areas, etc.). Replanting areas shall be either in native topsoil or areas where native topsoil has been reapplied. A seasonally timed maintenance program, which includes regular weeding (hand removal at a minimum of once early fall and once early spring within at least a three-foot radius from the tree or installation of a staked “weed mat” or weed-free mulch) and a temporary watering program, shall be developed for all oak tree planting areas. A qualified arborist/botanist shall be retained to monitor the acquisition, installation, and maintenance of all oak trees to be replaced. Replacement trees shall be monitored and maintained by a qualified arborist/botanist for at least seven years or until the trees have successfully established as determined by the County Environmental Coordinator. Annual monitoring reports will be prepared by a qualified arborist/botanist and submitted to the County by October 15 each year.

BR/mm-3

To mitigate the balance of the oak woodland impact, one of the following measures, or a combination thereof, shall be used:

- a. **Prior to approval of the Notice to Proceed**, the applicant shall record a conservation easement that protects 2,000 square feet of existing oak woodland habitat for each tree removed from the oak woodland in

perpetuity. The conservation easement shall be controlled by a qualified conservation organization approved by the County. Potential conservation organizations include but are not limited to: The Nature Conservancy, San Luis Obispo Land Conservancy, Greenspace, or The Cambria Land Trust. This mitigation measure may be used to satisfy the mitigation requirement for the oak woodland impacts.

- b. If the applicant is not able to establish a conservation easement, the applicant shall provide funding to the California Wildlife Conservation Board or other County-approved entity to be used for the purchase of Oak Woodland Habitat Conservation Easements. The final funding amount shall include \$970.00 for each tree removed. Each impacted tree shall be assessed a fee of \$485.00 per impacted tree. This mitigation measure may be used to satisfy the mitigation requirement for the oak woodland impact.

BR/mm-4

**Prior to ground disturbance for each of the project components in the expansion area (within seven days)**, to avoid conflicts with nesting birds or roosting bats, construction activities shall not be allowed unless a county-approved, qualified biologist has surveyed the impact zone and determined that no nesting or roosting activities will be adversely impacted. At such time, if any evidence of nesting activities is found, the biologist will determine if any construction activities can occur during the nesting period and to what extent. The results of the surveys will be passed immediately to the County Department of Planning and Building, possibly with recommendations for variable buffer zones, as needed, around individual nests. The applicant agrees to incorporate those recommendations.

**If work occurs between September 1 and March 1**, within seven days of ground disturbance or tree removal/trimming activities, a survey for wintering raptors shall be conducted. If surveys do not locate wintering raptors, construction activities may be conducted. If wintering raptors are located, construction activities shall observe a 500-foot buffer for the wintering location(s). A pre-construction survey report shall be submitted to the County Department of Planning and Building immediately upon completion of the survey. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements.

*Residual Impact* With implementation of these measures, the impact would be mitigated to a *level of insignificance (Class II)*. No additional mitigation is required.

#### 6) Wetlands, Other Waters, and Riparian Habitats

Wetlands, other waters, and riparian habitats occur within and adjacent to the proposed Landfill expansion area. Potential impacts to these habitats includes permanent disturbance or removal of these habitats, equipment operation in sensitive areas, damage to vegetation, increased trash and debris in sensitive habitats, and increased sediment deposition due to nearby soil disturbance.

Potential impacts to individual wetland, riparian, and aquatic habitats are discussed below and shown on Figure V.D.-1.

(a) State Jurisdictional Wetlands

Approximately 0.25 acre of isolated wetlands would be removed by the proposed project. The impacted slope wetlands consist of isolated patches of seasonally wet soil supporting a single hydrophytic species, flat stem rush. These wetlands receive water from saturated return flow through the soil, over shallow bedrock, and are not hydrologically connected to the drainage on the expansion area.

(b) Federal Jurisdictional Channel Wetlands

The proposed project would remove approximately 0.31 acre of jurisdictional wetlands in shallow swales that feed the ephemeral stream on site. The impacted wetlands consist of seasonally wet channels fed by a combination of stormwater and subsurface flow. The impacted areas of the jurisdictional wetland are dominated by a single hydrophytic species, flat-stem rush. More diverse wetlands in the main drainage would not be removed. The expansion would require construction of a new entrance road and turn lanes on Highway 227. During construction of the new entrance, Highway 227 would be widened, and existing culverts under Highway 227 would be replaced with oversized culverts to improve the hydrology and drainage of water onto neighboring property. This would require temporary disturbance of wetland waters, and permanent removal of up to 7,500 square feet (0.2 acre) of jurisdictional wetland. As a result, total permanent wetland disturbance would be 0.51 acre.

(c) Non-wetland Other Waters

The proposed project is not expected to introduce new impacts to the existing perennial reservoir or stormwater detention basin; however, the proposed access road, road widening, and replacement of culverts under Highway 227 would result in temporary impacts to non-wetland other waters. These impacts are not expected to be significant and would be quantified during the permitting process.

(d) Riparian habitat

The proposed project would occur in the vicinity of willow riparian habitat. Potential impacts from the proposed expansion include equipment use in the riparian corridor, removal of riparian vegetation, and increased amounts of trash and debris in the riparian habitat and channel. Close proximity to large areas of bare soil could result in increased sediment deposition in the drainage. Road widening of Highway 227 and culvert replacement would require removal of approximately 7,500 square feet (0.2 acre) of willow riparian habitat.

**BR Impact 2**                    **The proposed project would permanently impact approximately 0.25 acre of State slope wetlands, 0.51 acre of jurisdictional wetlands, and temporarily impact other waters, and riparian habitats.**

BR/mm-5                    **Prior to issuance of the Notice to Proceed, the applicant shall submit a Wetland and Riparian Habitat Restoration plan that covers impacts to all state and federal wetlands onsite. The plan shall describe wetland**

restoration and revegetation efforts, and identify the location *onsite* where those efforts will occur. The plan shall be submitted along with verification from the appropriate regulatory agencies (i.e., ACOE, CDFG, RWQCB) that necessary permits have been obtained. The plan shall include the following measures, at minimum, unless other equivalent measures are approved by regulatory agencies:

1. Avoid federal and state wetlands and provide with protective construction and erosion control fencing, to the extent feasible.
2. Mitigate impacts to federal wetlands at a 3:1 ratio. Mitigation for impacts to federal wetlands shall be performed onsite.
3. Mitigate impacts to state wetlands at a 1:1 ratio. Mitigation for impacts to state wetlands shall be performed onsite.
4. Mitigate impacts to riparian vegetation at a 1:1 ratio. Impacts to riparian habitat shall be mitigated onsite through restoration and enhancement of degraded stream channel and riparian habitat onsite.
5. Impacts to non-wetland waters require mitigation at a 1:1 ratio, that is, one linear foot of non-wetland waters restored or created for linear foot disturbed or removed.
6. On a monthly basis, the applicant shall inspect the ephemeral drainages just south of the proposed expansion area for accumulated trash. Any trash in, or in the vicinity of, the drainage shall be collected from this area, removed, and properly disposed.
7. The plan shall include a cost estimate of the costs associated with implementation of these measures.

BR/mm-6

To guarantee the success of the riparian and wetland mitigation, prior to issuance of the Notice to Proceed, the applicant shall post a bond with the County Department of Planning and Building in the amount determined in BR/mm-56, number 7. The bond shall not be released until mitigation requirements have been met, as determine by the County Department of Planning and Building, in consultation with applicable regulatory agencies.

*Residual Impact*

With implementation of this measure, the impact would be mitigated to a *level of insignificance (Class II)*. No additional mitigation is required.

### 7) Anthropogenic Habitat

Impacts to anthropogenic habitat are *less than significant (Class III)* except where occurrences of special-status species are involved. Mitigation for special-status species is addressed in Section 6.d. Other mitigation for loss of anthropogenic habitat is not required.

**b. Individual Oak Trees**

Impacts to oak trees occurring in closed canopy woodland remnants are considered under habitat impacts in Section 6.a.5. An additional thirteen (13) isolated individual coast live oak trees scattered in annual grassland would be removed by either the proposed project or during construction of earthen noise berms along the southern boundary, and up to (7) seven more individual oaks would be impacted by the proposed project. A tree inventory and map detailing the size, condition, habitat value, location, and potential project impacts to coast live oak trees on the subject property has been prepared (refer to Appendix C).

**BR Impact 3                    The proposed project would remove up to 13 mature oak trees and impact up to 7 more greater than five inches dbh.**

BR/mm-7                    **Prior to issuance of the Notice to Proceed**, the applicant shall prepare an Oak Tree Inventory, Avoidance, and Protection Plan as outlined herein. The plan shall be reviewed by a County-approved biologist and/or arborist, and shall include the following items:

- a. Comprehensive Oak Tree Inventory. This shall include the following information:
  1. An inventory of all oak trees at least five inches in diameter at breast height within 50 feet of all proposed impact areas. All inventoried trees shall be shown on plans. The species, diameter at breast height, location, and condition of these trees shall be documented in data tables.
  2. Identification of trees that will be retained, removed, or impacted. This information shall be shown on plans and cross-referenced to data tables described in item a.1 above.
  3. The location of proposed structures, utilities, driveways, grading, retaining walls, outbuildings, water and wastewater facilities, and impervious surfaces shall be shown on maps. The applicant shall clearly delineate the building sites/building control lines containing these features on the project plans.
  4. All reasonable efforts shall be made to maintain the historic drainage patterns and flow volumes in the vicinity of these oak trees. If not feasible, the drainage plan shall clearly show which trees would be receiving more or less drainage.
- b. Oak Tree Avoidance Measures. Grading and development within proposed project shall avoid the removal of oak trees to the maximum extent possible. Such activities shall minimize potential disturbance to oaks and their associated root zones to the maximum extent possible.
- c. Oak Tree Protection Guidelines. Tree protection guidelines and a root protection zone shall be established and implemented for each tree to

be retained that occurs within 50 feet of impact areas. The following guidelines shall be included:

1. A qualified arborist shall determine the critical root zone for each retained tree on a case-by-case basis, based upon tree species, age, and size. This area is generally defined as 1.0 to 1.5 times the distance from the tree base of the average measurement taken from the tree base to the edge of the canopy/dripline. At a minimum, the critical root zone shall be the distance from the trunk to the drip line of the tree.
2. All trees to remain within 50 feet of construction or grading activities shall be marked for protection (e.g., with flagging) and their root zone fenced prior to any grading. Grading, utility trenching, compaction of soil, or placement of fill shall be avoided within these fenced areas. If grading in the root zone cannot be avoided, retaining walls shall be constructed to minimize cut and fill impacts. Care shall be taken to avoid surface roots within the top 18 inches of soil. If any roots must be removed or exposed, they shall be cleanly cut and not left exposed above the ground surface. The project arborist shall approve any work within the root protection zone.
3. Unless previously approved by the county, the following activities are not allowed within the root zone of existing or newly planted oak trees: year-round irrigation (no summer watering, unless “establishing” new tree or native compatible plants for up to seven years); grading (includes cutting and filling of material); compaction (e.g., regular use of vehicles); placement of impermeable surfaces (e.g., pavement); disturbance of soil that impacts roots (e.g., tilling).
4. The applicant shall minimize trimming of oak trees to remain onsite. Removal of larger lower branches should be minimized to 1) avoid making tree top heavy and more susceptible to “blow-overs”, 2) reduce having larger limb cuts that take longer to heal and are much more susceptible to disease and infestation, 3) retain wildlife habitat values associated with the lower branches, 4) retain shade to keep summer temperatures cooler (retains higher soil moisture, greater passive solar potential, provides better conditions for oak seedling volunteers) and 5) retain the natural shape of the tree. The amount of trimming (roots or canopy) done in any one season shall be limited as much as possible to reduce tree stress/shock (ten percent or less is best, 25 percent maximum). If trimming is necessary, the applicant shall use a certified arborist when removing limbs. Unless a hazardous or unsafe situation exists, major trimming shall be done only during the summer months.

*Residual Impact* With implementation of this measure, the impact would be mitigated to a *level of insignificance (Class II)*. No additional mitigation is required.

c. General Wildlife Impacts

The expansion area is located south of the existing disposal area, west of a vineyard, and east of Highway 227, both of which partially hinder wildlife movements across the expansion area. The proposed project is not expected to significantly affect wildlife movement. Common wildlife species currently living on the expansion site or using the property as transients would be displaced. Take of common species may occur during construction activities. Common wildlife expected to occur on the property includes common species such as red fox, mule deer, coyote, striped skunk, raccoon, black-tailed jackrabbit, and several species of rodents. Mitigations for impacts to common wildlife species are typically not required under CEQA. Take of nesting birds could result from implementation of the proposed project and would require mitigation.

**BR Impact 4** **The proposed project would potentially impact nesting birds, including raptors and other protected species.**

Implement BR/mm-4.

*Residual Impact* With implementation of this measure, the impact would be mitigated to a *level of insignificance (Class II)*. No additional mitigation is required.

d. Special-status Species Impacts

There is potential habitat for 14 special-status animals and ten special-status plants within the expansion area. For California red-legged frog, while no such frogs were observed during protocol surveys conducted in the expansion area (Althouse and Meade, 2007d), potential habitat is present. Special-status animals with potential to occur include two reptiles, six bird taxa (including the “other nesting birds” grouping), and five mammals. Potential impacts to these species are discussed below. Of the ten special-status plant species with the potential to occur, only Obispo Indian paintbrush was identified in the expansion area in May and June 2006, and spring 2007 and is expected to be present.

Silvery legless lizard has potential to occur in patches of oak woodland within the project site. Approximately 1.3 acres of potential habitat for this reptile would be removed by the proposed project. Oak tree removal and grading activities could result in take of this CSC species.

Southwestern pond turtles do not presently occur on the property, but could enter the drainage or the perennial reservoir from outside source populations. Project activities that disturb the drainage could result in disturbance or take of pond turtles. Turtles are also known to over-summer in underground burrows; therefore, grading activities conducted adjacent to potential turtle habitat could also result in take of pond turtles.

Sharp-shinned hawk, loggerhead shrike, white tailed kite, and various other nesting birds could nest onsite. Take could occur during tree and shrub removal. Peregrine falcons forage on the subject site, but no potential nesting habitat is present at the Landfill. The local falcons currently forage successfully above and near the Landfill, and are accustomed to equipment operation in the vicinity; therefore, this project is not expected to have a significant impact on this species and

no mitigation is required. While ferruginous hawks are not expected to nest onsite there is the potential this species could winter onsite.

Pallid bat, Townsend's big-eared bat, western red bat, and western mastiff bat could occur in oak tree cavities and small abandoned buildings on the property. Removal of trees and abandoned structures could impact special status bats.

American badger could use annual grasslands, coastal scrub, ruderal, and agrestal habitats in the expansion area. Approximately 33.8 acres of habitat usable by badgers would be removed. Indirect impacts to badgers include the loss of foraging and denning habitat. Direct impacts could occur if a badger takes up residence on the site prior to grading activities.

### 1) Special-status Animals

**BR Impact 5      The proposed project would potentially impact directly and/or indirectly, habitat for 14 special-status animals.**

BR/mm-8      **Prior to all ground-disturbing activities**, a qualified biologist shall provide pre-construction training to all workers involved in site activities. This training shall consist of instruction on special-status species with potential to occur on the property and their habitats. Workers shall be instructed as to appropriate contacts and how to proceed if special-status species on the project site are observed.

BR/mm-9      A biological monitor qualified to capture and move legless lizards shall be present during all initial ground-disturbing activities. The monitor shall capture and relocate silvery legless lizards disturbed during tree clearance and initial site grading. In addition, the monitor shall rake loose soil within oak woodlands prior to excavation to find and move legless lizards. Efforts shall focus on relocation of silvery legless lizards to safe habitat outside the expansion area.

BR/mm-10      **Within two weeks prior to initiation of project components**, a qualified biologist shall conduct a pre-construction survey for roosting bats. If bats are not found, tree and/or building removal can proceed. If bats are observed, bat exclusion measures shall be instituted prior to disturbance. If maternal bat colonies are found they shall not be disturbed until young bats have left the site. Subsequently bat exclusion measures shall be instituted prior to disturbance.

BR/mm-11      **Prior to vegetation removal and grading in the drainage area**, a qualified biologist shall conduct a pre-construction survey for Southwestern pond turtles to find and relocate to safe habitat any turtles present in the expansion area. Southwestern pond turtle surveys identification shall occur again if activity in the drainage stops for more than one year before commencing again.

BR/mm-12 A pre-construction survey shall be conducted within 30 days prior to construction or grading for each of the following activities - the RRP, the new entrance road, the earthen noise berm, and Modules 11 through 16 to identify if badgers are using the site. The results of the survey shall be sent to the County Department of Planning and Building. If the pre-construction survey finds potential badger dens, they shall be inspected to determine whether they are occupied. The survey shall then be expanded to cover the entire property, and shall examine both old and new dens. If it is not feasible to completely inspect potential badger dens from the entrance, a fiber optic scope shall be used to examine the entire den. Inactive dens shall be excavated by hand with a shovel to prevent re-use of dens during construction.

To avoid disturbance and the possibility of direct take of adults and nursing young, no grading shall occur within 100 feet of active badger dens between February and July. Between July 1 and February 1, all potential badger dens shall be inspected to determine if badgers are present. If badger dens are found on the property during the pre-construction survey, the CDFG wildlife biologist for the area shall be contacted to review current allowable management practices such as establishing buffers around dens, and relocating badgers.

BR/mm-13 A qualified biologist shall survey the project area 48 hours before the onset of work activities that could disturb CRLF habitat identified onsite. If any life stage of the CRLF is found and these individuals are likely to be killed or injured by work activities, construction shall be halted and the relevant regulatory agencies (i.e., USFWS, CDFG, County of San Luis Obispo) shall be notified to develop appropriate measures to avoid or minimize the potential for take of CRLF.

*Residual Impact* With implementation of these measures, the impact would be mitigated to a level of insignificance (Class II). No additional mitigation is required.

## 2) Special-status Plants (Obispo Indian paintbrush)

One rare plant, Obispo Indian paintbrush, was identified during spring floristic surveys of the property in May and June 2006 (refer to Figure V.D.-1). In a wet year, approximately 1,000 individuals occurred in patches scattered through agrestal and grassland habitats; in a dry year fewer than 50 individuals were counted. The applicant has submitted an Obispo Indian Paintbrush Mitigation and Monitoring Plan (MMP) that identifies an area onsite that should be used as a mitigation site. However, this site, although designated as “closed” on maps provided by the applicant, would be re-disturbed during construction of Module 10 and would not provide habitat in perpetuity.

**BR Impact 6** The proposed project would remove approximately 90 percent of the Obispo Indian paintbrush population located in the expansion and earthen noise berm areas.

BR/mm-14

**Prior to issuance of the Notice to Proceed**, the Obispo Indian Paintbrush Mitigation and Monitoring Plan (MMP) that has been prepared for this project (Althouse and Meade, 2007c) shall be revised and a proposed new ~~offsite~~ location for the mitigation shall be identified. The new site (preferably onsite) shall be protected in perpetuity and be located as close to the project site as feasible. Mitigation shall consist of seed collection onsite and direct sowing at the identified offsite location. Mitigation will be deemed complete when an annual count of Obispo Indian paintbrush reaches levels comparable to baseline site conditions identified during initial surveys of the expansion area performed by Althouse and Meade. The MMP shall be approved by the County Department of Planning and Building and the CDFG prior to issuance of the grading permit.

*Residual Impact*

With implementation of these measures, the impact would be mitigated to a *level of insignificance (Class II)*. No additional mitigation is required.

## 7. Cumulative Impacts

The cumulative development scenario did not identify additional projects that would significantly impact biological resources. In addition, development of vineyards and additional residential development in the area of the proposed project would be limited by the finite water supply and existing zoning, respectively. The proposed project would result in the loss of 1.3 acres of oak woodland habitat, the loss of up to 13 other individual oak trees in other habitats, impacts to 7 oak trees, and impacts to 0.76 acre of wetlands, Other Waters, and riparian habitats. Impacts to these habitats would result in direct or indirect impacts for special-status animal and plant species. The project specific impacts resulting from the proposed project would be mitigated to a less than significant level, and the project would not contribute to cumulatively significant impacts. Cumulative impacts would be *less than significant (Class III)*. No additional mitigation is required.

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