

---

**Q.8 - TECHNICAL REPORT: BIOLOGY**

---





March 26, 2009

Mark Hutchinson, Environmental Programs Manager  
County of San Luis Obispo  
Department of Public Works, Environmental Programs Division

Subject: **Biological Resources Letter Report – Additional Surveys for Tonini Sprayfields,  
Los Osos Wastewater Project**

Dear Mr. Hutchinson:

At the request of the County of San Luis Obispo (County), Michael Brandman Associates has completed a Biological Resources Letter Report as an addendum to existing environmental documentation prepared for the Los Osos Wastewater Project located within unincorporated San Luis Obispo County, California.

The enclosed letter report addresses the findings of a one-day reconnaissance-level survey conducted within the areas proposed for sprayfields on the Tonini property. The findings of the survey are documented within this addendum letter report to facilitate the preparation of the Final Environmental Impact Report and Preferred Project Evaluation for the Los Osos Wastewater Project. The primary purpose of the survey was to document existing conditions within an approximately 73-acre area that is proposed for additional treated effluent disposal through sprayfields and evapotranspiration. The survey also confirmed the presence of the non-listed rare plant, Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*), and two potential den sites for the California State species of special concern, American badger (*Taxidea taxus*). The survey also confirmed the location of areas on the property that are targeted for ongoing protocol-level surveys for the critically endangered and fully protected Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*).

The letter report also incorporates the findings of previous studies conducted for the Los Osos Wastewater Project by MBA and others, including protocol-level survey and habitat assessment efforts conducted by Dr. Francis Villablanca for the Morro Bay kangaroo rat, and general biological surveys conducted by the County Department of Public Works Environmental Programs Division. Should you require any additional information or have questions regarding the findings of enclosed letter report, please do not hesitate to contact me at 714.508.4100 or kosmundson@brandman.com.

Sincerely,

Karl L. Osmundson, Project Manager/Biologist  
**Michael Brandman Associates**  
220 Commerce, Suite 200  
Irvine, CA 92602

Enc: **Biological Resources Letter Report**

H:\Client (PN-JN)\0224\02240002\Bio\022400002\_AppQ-8\_CoverLetter.doc

Fresno  
559.497.0310

Irvine  
714.508.4100

Palm Springs  
760.322.8847

Sacramento  
916.447.1100

San Bernardino  
909.884.2255

San Ramon  
925.830.2733



## **SECTION 1: INTRODUCTION**

As part of the biological resources technical studies for the Los Osos Wastewater Project, Michael Brandman Associates (MBA) and the County of San Luis Obispo (County) Department of Public Works Environmental Programs Department conducted a follow-up reconnaissance-level survey on February 20, 2009 within an additional 73-acre area proposed for sprayfield disposal on the Tonini property. This addendum letter report documents the findings of the follow-up survey in order to facilitate the preparation of the Final Environmental Impact Report and Preferred Project Evaluation for the Los Osos Wastewater Project.

---

### **1.1 - General Location of Sprayfields**

---

As analyzed for the Draft EIR, the areas proposed for sprayfields for the Preferred Project are located within the Tonini property (Tonini Ranch), which encompasses Assessors Parcel Number (APN) 067-011-020 located approximately 0.50 mile north of the intersection of Los Osos Valley Road and Turri Road, east of the unincorporated community of Los Osos, San Luis Obispo County, California. The center of the Tonini property corresponds to 35°18'51.67"N latitude, 120°47'02.42" longitude, as depicted on the San Luis Obispo, California United States Geological Survey (USGS) 7.5-minute topographic map.

---

### **1.2 - Brief Description of Sprayfields**

---

A complete description of the Preferred Project, including details of the sprayfield design and operational requirements, is provided within Appendix Q.3 of the Final EIR for the Los Osos Wastewater Project.

The Preferred Project proposes to use a total 248 acres of the Tonini property for sprayfields with evapotranspiration as part of the disposal method of treated effluent from the proposed wastewater treatment facility. This represents an increase from that which had been analyzed in the Draft EIR by 73 acres. In order to meet evapotranspiration demands, all sprayfields are proposed within lands on the Tonini property that have a slope of 20 percent or less. Therefore, given the slope constraints, the additional 73 acres are contained within portions of the western half of the Tonini property that have a slope of 20 percent or less. In general, the additional 73 acres extend further to the west from previously surveyed areas. As with previous areas, the additional sprayfield areas have been designed to be a minimum of 100 feet from coastal streams, wetlands, cultural sites, and other sensitive resources determined to exist on the property. Additional 100-foot setbacks are provided from the southern and western property boundaries, and additional 30-foot setbacks are provided from Turri Road to provide a buffer from neighboring properties.

Operation of the sprayfields as a disposal option would be restricted to the dry season. During non-wet periods, the treatment plant will pump a maximum of 80 AF monthly (842 AFY) of treated effluent to the Tonini sprayfields. With the elimination of percolation within the lower elevation portions of the Tonini property, the 248 acres of total sprayfields would provide a maximum effluent disposal capacity of 918 AF per year in a wet year, which was determined to be less than the maximum buildout effluent disposal requirement of 842 AF per year. Treated effluent will be conveyed away from the treatment plant facility to the sprayfields via a system of 12-inch pipelines. A total of 6,500 linear feet of pipelines will be required. Major conveyance pipelines would be buried with connections to smaller lateral lines that would lie on the ground surface and connect to sprayheads positioned at various locations.

## **SECTION 2: METHODOLOGY**

Analysis of the biological resources associated with the refined sprayfield area began with a thorough review of relevant literature followed by a general biological survey.

---

### **2.1 - Literature Review**

---

Prior to the habitat assessment survey, a literature review was conducted that focused on existing documentation prepared for the Los Osos Wastewater Project in addition to records of previous observations of special status species on the Tonini property. The methodology established in the Draft EIR Appendix G was continued. Additional information pertaining to previous observations of special status species and suitable habitat determinations on the Tonini property was provided via personal communication with Ms. Kate Ballantyne and Mr. Eric Wier with the County of San Luis Obispo Department of Public Works Environmental Programs Department. The literature review also included aerial imagery of the survey areas, as well as the topographic electronic copies of the San Luis Obispo, California USGS 7.5-minute topographic quadrangle map.

The following is a list of documents and information reviewed in preparation of this letter report.

- Draft EIR for the Los Osos Wastewater Project. November 2008. Available on file at Michael Brandman Associates.
- Biological Resources Assessment for the Los Osos Wastewater Project. July 2008. Available on file at Michael Brandman Associates.
- Draft Biological Assessment for the Los Osos Wastewater Project. March 2009. County of San Luis Obispo Department of Public Works, Environmental Programs Division.
- Draft Biological Assessment for the Los Osos Wastewater Project - Fisheries. March 2009. County of San Luis Obispo Department of Public Works, Environmental Programs Division.

- Draft Memorandum of Morro Bay Kangaroo Rat (*Dipodomys heermanni morroensis*) Habitat Assessment Relative to Los Osos Sewer Project Proposed for Tonini Ranch. February 12, 2009.
- California Natural Diversity Database (CNDDDB). Data provided by the participants of the California Department of Fish and Game's RareFind 3 Application. Query conducted February 18, 2009.
- California Native Plant Society (CNPS). Data provided by the participants of the California Native Plant Society Inventory of Rare and Endangered Plants (<http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi>). Query conducted February 18, 2009.
- Consortium of California Herbaria. Data provided by the participants of the Consortium of California Herbaria (<http://ucjeps.berkeley.edu/consortium/>). Query conducted February 18, 2009.
- Cal flora Observation Library and Mapviewer. Data provided by the participants of the Calflora Observation Library and Mapviewer (<http://www.calflora.org/cgi-bin/occform.cgi>). Query conducted February 18, 2009.

---

## 2.2 - Habitat Assessment Survey

---

A reconnaissance-level survey of the sprayfield areas on the Tonini property was conducted on February 20, 2009 by MBA biologist Karl Osmundson and County Natural Resources Specialists Ms. Kate Ballantyne and Mr. Eric Wier. The survey area encompassed an approximately 350-acre area, which generally included all areas proposed for sprayfields in the western half of Assessors Parcel Number (APN) 067-011-020. The survey did not include areas contained within the Pacific Gas and Electric (PG&E) easement or areas to the west of the easement due to the fact that no project elements are currently proposed within these areas on the property.

The survey was conducted on foot by walking meandering transects throughout the entire 350-acre area. The primary purpose of the survey was to document existing conditions within an approximately 73-acre area that is proposed for additional treated effluent disposal through sprayfield evapotranspiration methods. The survey also confirmed the presence of the non-listed rare plant, Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*), potential burrows for the California State species of special concern, American badger (*Taxidea taxus*), and the location of areas on the property that are targeted for ongoing protocol-level surveys for the critically endangered and fully protected Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*).

The locations of previous observations of sensitive resources were plotted onto aerial imagery to determine connectivity of suitable habitat and/or likely dispersing routes between the locations of observations and the survey area. Parameters assessed pertaining to the habitat requirements for plant and wildlife species include the presence of suitable physical characteristics in topography, vegetation

and plant community compositions, and soils. The presence of suitable nesting, roosting, foraging, including suitable prey base, or dispersing habitat was also assessed. Any evidence of previous disturbance on the project site was carefully documented. All observations were recorded in a field notebook.

---

## **SECTION 3: SURVEY RESULTS**

---

### **3.1 - Weather Conditions**

---

The reconnaissance-level survey was conducted on February 20, 2009, between the hours of 0830 and 1330. Weather conditions during this survey included mostly clear skies with a temperature range of 55 to 65 degrees Fahrenheit, with winds ranging from approximately 1 to 5 miles per hour out of the west.

---

### **3.2 - Existing Conditions**

---

The reconnaissance-level survey confirmed that the refined sprayfield area is contained within undeveloped land on the Tonini property that is characterized by actively grazed non-native grassland. General land use beyond the survey area consists of open undeveloped grassland and agricultural land in all directions.

#### **3.2.1 - Topography and Soils**

The refined sprayfield area encompasses lower elevation slopes on the Tonini property that range in elevation from approximately 40 to 350 feet above mean sea level. Similar to the remaining grazed and cultivated land on the Tonini property, the observed surface soils throughout the majority of the refined sprayfield area are disturbed from trampling and grazing. The soils mapped within the refined sprayfield area include Briones-Tierra complex (15 to 50 percent slopes), Concepcion loam (5 to 9 percent slopes), Copley clay (2 to 9 percent slopes), Diablo and Cibo clays (15 to 30 percent slopes), Diablo and Cibo clays (30 to 50 percent slopes), Pismo-Tierra complex (9 to 15 percent slopes), and Tierra sandy loam (2 to 9 percent slopes). Areas mapped as Diablo and Cibo clays support a few isolated rock outcrop and minor terrace escarpment features, presumably derived of serpentinite parent material, that are suitable for Blochman's dudleya. In addition, areas mapped as Pismo-Tierra complex and Tierra sandy loam are derived from erosion of alluvial and local sandstones and may provide suitable conditions for the Morro Bay kangaroo rat.

#### **3.2.2 - Disturbance**

The proposed refined sprayfield area occurs within land that is heavily grazed by cattle. The grazing has resulted in damage to the ground surface from trampling and stress to vegetation. No other significant disturbances were observed.

### 3.2.3 - Habitats/Vegetation Communities

The refined sprayfield area will occur within portions of a single habitat type or vegetation community: non-native grassland. A complete description of this community and extent to which it occurs within the survey area is provided below.

#### Non-Native Grassland

Non-native grassland is described as a dense to sparse cover of non-native annual grasses often associated with numerous weedy species and native annual forbs (wildflowers), especially in years with plentiful rain. Seed germination occurs with the onset of winter rains. Some plant growth occurs in winter, but most growth and flowering occurs in the spring. Plants then die in the summer, and persist as seeds in the uppermost layers of soil until the next rainy season. Dominant plant genera typically found within non-native grasslands include brome (*Bromus* sp.), wild oats (*Avena* sp.), fescue (*Vulpia* sp.), and barley (*Hordeum* sp.).

The non-native grassland that characterizes the refined sprayfield area is similar to that which occupies the remaining grazed portions of the Tonini property. In general, the non-native grassland is considered low in habitat quality due to the lack of species diversity, prevalence of non-native and disturbance-tolerant annuals, and intensive disturbance from cattle grazing. Plant identification was problematic due to grazing damage and the time of year in which the survey took place (i.e. many annuals were in the early stages of growth lacking identifiable characteristics). Many areas were heavily trampled and supported a high percent cover of bare earth and “early-showing” non-native forbs such as filaree (*Iridium* sp.). In general, the non-native grasslands within the sprayfields are dominated by a mix of bromes (*Bromus* spp.), barleys (*Hordeum* spp.), and fescues (*Vulpia* spp.). Salt grass (*Distichlis spicata*) was identified within the non-native grassland that occupies the lower elevation southeastern portions of the property toward Warden Lake. Other annuals observed within areas protected from grazing include the native rancher’s fiddleneck (*Amsinckia menziesii* var. *intermedia*) and non-native wild radish (*Raphanus sativus*). Additional non-native grassland extends further to the west into the PG&E easement and western property boundary and further to the north across Turri Road. No sign of any native bunch grass or other native grass stands were evident within the non-native grassland during the survey.

Despite the overall low quality, there are a few areas contained within the grassland habitat that support rock outcrops and are less disturbed, consequentially supporting very different microhabitats and plant species compositions. A number of native species were identified in association with these rock outcrops amongst the grazed grassland habitat, including the CNPS List 1B.1 rare plant, Blochman’s dudleya, in addition to common species such as sand mat (*Cardionema ramosissimum*), sand pygmyweed (*Crassula connata*), and bush monkeyflower (*Mimulus aurantiacus*).

### 3.2.4 - General Wildlife

The new sprayfield area provide habitat for wildlife species that commonly occur in grassland communities. A single reptilian species, western fence lizard (*Sceloporus occidentalis*), was observed during the survey. Avian species observed or detected during the survey include California horned lark (*Eremophila alpestris actia*), Say's phoebe (*Sayornis saya*), black phoebe (*Sayornis nigricans*), turkey vulture (*Cathartes aura*), American kestrel (*Falco sparverius*), red-winged blackbird (*Agelaius phoeniceus*), western meadowlark (*Sturnella neglecta*), Bullock's oriole (*Icterus bullockii*), yellow-rumped warbler (*Dendroica coronata*), brown-headed cowbird (*Molothrus ater*), western bluebird (*Sialia mexicana*), western scrub jay (*Aphelocoma californica*), red-tailed hawk (*Buteo jamaicensis*), lark sparrow (*Chondestes grammacus*), dark-eyed junco (*Junco hyemalis*), orange-crowned warbler (*Vermicora celata*), wrenit (*Chamaea fasciata*), spotted towhee (*Pipilo maculatus*), house finch (*Carpodacus mexicanus*), Anna's hummingbird (*Calypte anna*), and California towhee (*Pipilo crissalis*). Mammalian species observed or detected during the survey include American badger, desert cottontail (*Sylvilagus audubonii*), mule deer (*Odocoileus hemionus*), domestic cattle (*Bos primigenius taurus*), and domestic dog (*Canis familiaris*). Although no live specimens were observed, a few shells of the common Chorro shoulderband snail (*Helminthoglypta morroensis*) were also observed during the survey.

---

## SECTION 4: SENSITIVE BIOLOGICAL RESOURCES

---

### 4.1 - Special Status Plant Species

---

#### 4.1.1 - Blochman's dudleya

Blochman's dudleya is not federally- or State-listed as threatened or endangered however is designated as a California Native Plant Society List 1B.1 rare plant. The species is generally found in sandy openings of shrub-dominated habitat types correlated with areas that are influenced by strong maritime weather patterns. Vegetation community associations include coastal sage scrub, coastal bluff scrub, maritime chaparral, and grasslands. Blochman's dudleya sites are primarily supported by clay or serpentinite substrates, as well as rocky areas with little soil development. Soils at known occurrence locations include Las Flores loamy fine sand and Terrace Escarpments. This species is known from a number of sites within San Luis Obispo County, including a location approximately two miles north of Cayucos on a seabluff, a location approximately four miles north of Cayucos east of Point Estero and northwest of Highway 1, a location west of the intersection of Los Osos Valley Road and Highway 101 just outside city limits of San Luis Obispo, a location eight miles west of San Luis Obispo near Morro Bay, and a location at the west base of Bishop Peak. Two occurrences have been recorded in the local area, including a recent observation in 2001 within Camp San Luis Obispo, east of the Los Osos community, and a second occurrence recorded over 50 years ago located along Cabrillo Highway.

General biological surveys conducted by the County Department of Public Works in January 2009 determined that portions of the areas proposed for sprayfields support a few concentrations of Blochman's dudleya. The general biological survey conducted by MBA and the County Department of Public Works in February 2009 identified all significant concentrations within the area, most of which are restricted to isolated rock outcrops and minor terrace escarpments located in the northern portions of the Tonini property that are supported by Diablo and Cibo clays. Based on the survey findings, the total population on the Tonini property is estimated to include approximately 1,000 individuals, with the largest concentration estimated at approximately 200 individuals. As a result of the presence of this species, the areas proposed for sprayfields have been adjusted to exclude the extreme northern portions of the property adjacent to Turri Road that support the highest concentrations of individuals.

---

## **4.2 - Special Status Wildlife Species**

---

### **4.2.1 - Morro Bay Kangaroo Rat**

The Morro Bay kangaroo rat is a federally-endangered, and California State-endangered and fully protected species. In 2000, the U.S. Fish and Wildlife Service (USFWS) released the Draft Revised Recovery Plan for this species that detailed its current status and distribution, and conservation objectives for the recovery and delisting of this species from endangered levels. The USFWS has designated critical habitat for this species within areas along the coast in the northwestern portion of Montana De Oro State Park. This species optimum habitat consists of early successional coastal sage scrub habitat supported by old, stabilized dune terraces mapped with Baywood fine sandy soils. Optimum vegetation includes herbaceous annuals with scattered native woody perennial shrubs no more than 2 feet in height. The historical range of this species is highly restricted to areas within and surrounding the community of Los Osos and Montana De Oro State Park. The majority of the original distribution of the species is correlated with the distribution of Baywood fine sandy soils west of Los Osos Creek; however, an eastern extension of the historic range occurs east of Los Osos Creek in which the species is known from both Baywood fine sands and Tierra sandy loams.

Recent survey efforts headed by Dr. Francis Villablanca in conjunction with the USFWS determined that central and southern portions of the proposed sprayfield area on the Tonini property that support Pismo-Tierra complex and Tierra sandy loam soils may provide suitable conditions for the Morro Bay kangaroo rat. These determinations were confirmed during the general biological survey conducted in February 2009 by MBA and the County Department of Public Works. Protocol-level surveys and trapping, as approved by the USFWS and CDFG, have been on-going within portions of these areas on the Tonini property. Portions of the proposed sprayfield area supported by Tierra sandy loam have been subject to the first year of protocol surveys in 2008 by Dr. Villablanca. These surveys resulted in negative findings on the Tonini property. The second year of surveys within these areas result will proceed in the spring of 2009. If the second year of surveys also result in negative findings, as expected, this species will be presumed absent from those areas.

The areas mapped as Pismo-Tierra complex soils were not included in the first year of protocol surveys mentioned above, and these new areas will have to be surveyed for their first year beginning in the spring of 2009. If the species is not detected during the first year surveys in 2009, the second year of protocol surveys will be conducted in 2010. If the second year of surveys within the new suitable habitat areas also result in negative findings, this species will be presumed absent from all areas surveyed on the Tonini property.

#### **4.2.2 - American Badger**

The American badger is not federally- or State-listed as threatened or endangered however is designated as a California species of special concern. This species is an uncommon permanent resident throughout the majority of California, with the exception of the North Coast areas. This species preferred habitat includes dry open stages of grasslands, savannas, mountain meadows, and shrub and forest types supported by friable soils for burrow construction. Badgers are carnivorous, preying primarily upon fossorial rodents, reptiles, insects, earthworms, eggs, birds, and carrion. The species is a yearlong resident that is highly mobile within its relatively large home range, often traveling long distances in search of resources. American badgers have the ability to dig their own burrows to use as refuge, and may dig multiple burrows over short periods of time as it moves through an area. Badgers mate in the summer and early fall. Gestation and delayed implantation are followed by young being born in burrows around March and April.

During general biological surveys conducted within the additional sprayfields area in February 2009 by MBA and the County Department of Public Works, single potential American badger burrow was identified within areas proposed for sprayfields. An additional burrow was identified within areas that will be avoided by the sprayfields. None of the burrows displayed any definitive sign of recent activity.

#### **4.2.3 - Nesting Birds**

The refined sprayfields area contains suitable nesting habitat for bird and raptor species protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game (CFG) Code. Additional nesting habitat occurs within 500 feet of the sprayfields. The non-native grassland provides suitable nesting opportunities for raptor species such as northern harrier, and bird species such as California horned lark and western meadowlark. The isolated eucalyptus trees that fall within the sprayfield area provide additional nesting opportunities for raptor species such as red-tailed hawk and great-horned owl, and species such as yellow-rumped warbler, house finch, and Bullock's oriole.

---

### **4.3 - Jurisdictional Waters and Wetlands**

---

The refined sprayfields area has been designed to avoid waters and wetlands on the Tonini property with 100-foot setbacks. Therefore, no waters or wetlands regulated by the U.S. Army Corps of

Engineers, Regional Water Quality Control Board, California Department of Fish and Game, or California Coastal Commission occur within the refined sprayfields area.

---

#### **4.4 - Other Unique Features/Resources**

---

##### **4.4.1 - Wildlife Corridors and Linkages**

For any given species, wildlife movement is dependent upon the availability and access to areas that support the resources that are vital to the individual and the overall population. Wildlife movement activities may fall into three general categories that include dispersal (e.g., juvenile animals moving from natal areas, thus individuals extending range distributions), seasonal migration (e.g. seasonal movement to and from breeding grounds, seeking lower elevations or lower latitudes during the winter), and home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). Species may be highly mobile within their home ranges, which can be many square miles in size and encompass a variety of habitat types depending on the species and the availability of resources at any given time throughout the year.

The refined sprayfields area is contained within expansive non-native grassland habitat that continues in all directions. The area is not characterized by any land features that are typically associated with wildlife movement, including steep gullied land, drainage features, floodplains, valleys canyons ridgetops, vegetation breaks (distinct canopy edges, long linear stands, cleared areas), or existing roads, paths, or trails. Currently, wildlife movement and use in the area is unrestricted due to the lack of adjacent developments and barriers, and the homogeneity and openness of the habitat. Therefore, the refined sprayfields area does not function to facilitate wildlife movement as a corridor or linkage, nor does it contribute to any existing corridors or linkages in the local or regional area.

##### **4.4.2 - Raptor Foraging**

Important raptor foraging areas are generally characterized by habitat types that are both compatible with foraging behavior (promote appropriate lines of sight, provide unobstructed access to prey, contain adequate perches, etc.) and support an adequate prey base for target raptors with the potential to range through the area. Raptor foraging areas of local and regional importance are not fragmented or constrained by development or other incompatible land uses, and are relatively large in size. For year-round resident raptors, important foraging areas may be used frequently and repeatedly, and usually occur in close proximity to nest locations and territories. Wintering raptors with the potential to occasionally range through an area may use multiple foraging sites less frequently along a migratory route and within a wintering location.

The non-native grassland within the refined sprayfields area provides foraging habitat for common and sensitive raptor species that are known to occur in the area as year-round residents or seasonal migrants. This habitat is contiguous with additional non-native grassland that occurs within the Tonini property and areas further to the north, south, east, and west. Raptors with the potential to

forage through the area include species such as red-tailed hawk, barn owl (*Tyto alba*), great-horned owl (*Bubo Virginians*), white-tailed kite (*Elanus leucurus*), ferruginous hawk (*Buteo regalis*), northern harrier (*Circus cyaneus*), merlin (*Falco columbarius*), and prairie falcon (*Falco mexicanus*). All foraging areas within the sprayfields area are adjacent to larger, more expansive, undeveloped lands that provide additional foraging habitat that is less disturbed, not subject to grazing, and overall better in quality.

## SECTION 5: CONCLUSIONS

The new areas proposed for sprayfields are characterized by actively grazed non-native grasslands, a common habitat type in the local area. No sensitive natural communities or native vegetation communities occur on or within 100 feet of the areas proposed for sprayfields. With the exception of the presence of marginal habitat for the federally-endangered, and California State-endangered and fully protected Morro Bay kangaroo rat, the additional sprayfield areas do not provide suitable habitat for any federally- or State-listed endangered or threatened plant or wildlife species. The survey confirmed the presence of two potential burrows for the American badger, a non-listed California State species of special concern, both of which are presumed inactive, and one of which is contained within the additional sprayfield areas. The survey also confirmed the presence of a number of concentrations of Blochman's dudleya, a non-listed CNPS List 1B.1 rare plant. These concentrations collectively support approximately 1,000 individuals, the largest of which supports approximately 200 individuals and will be avoided in the sprayfield design.

Suitable nesting habitat for bird and raptor species protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game (CFG) Code occurs on and within 500 feet of the refined sprayfield area. Additionally, the non-native grasslands provide good quality functioning foraging habitat for common and sensitive raptor species. None of the areas proposed for sprayfields contribute to the assemblage of any functioning wildlife corridors or habitat linkages, or support or provide access to and from any significant nursery sites.

No additional federally- or State-regulated waters, wetlands, or other resources under the jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), California Department of Fish and Game (CDFG), or California Coastal Commission (CCC) were confirmed within the refined sprayfields area during the survey.