

Biological Resources

Biological Resources: Appendix B(g)(1)

Information required:

Please provide a map of the vegetation communities of the 1-mile buffer around the project site and out to 1,000 feet of the outer edge for proposed linear facilities. Also provide a discussion of these areas.

Response:

Exhibit 1 has been prepared by Michael Brandman Associates (MBA) and provides a map of the vegetation communities of the 1-mile buffer around the Project site and out to 1,000 feet of the outer edge for proposed linear facilities. Exhibit 1 was developed using the City of San Diego's detailed vegetation map, which includes the 1-mile buffer area in combination with ground truthing at selective areas around the Project site. There are a large number of parcels within the buffer areas. Not all of these parcels were visited for ground truthing as MBA did not have permission to access them. The letters from property owners who granted permission to survey on private land are provided in Attachment B.1 of this Supplement. The vegetation mapping and ground truthing provided sufficient information to determine direct, indirect, and cumulative impacts to the surrounding 1-mile buffer area, as discussed below.

The area within the 1-mile buffer of the Project site contains similar habitat to that found within the Project site, which includes rolling hills with north to south trending ridge-lines and canyons. Elevation limits within the 1-mile buffer range from 300 to 930 feet above mean sea level. The area within 1,000 feet of the linear facilities ranges in elevation from 300 to 730 feet above mean sea level. The vegetation communities associated with the Project site are described in the AFC from page 4.12-11 through 4.12-16. The following is a brief description of the additional vegetation communities observed in the 1,000-foot buffer area surrounding the linear components that was not included in the original AFC submittal.

Southern Mixed Chaparral (37120)

This plant community is similar to Northern Mixed Chaparral (37110) but is typically not as tall (1.5-3m) or dense. Occasionally, with patches of bare soil, it also forms a mosaic with Diegan Coastal Sage Scrub (32500). Southern Mixed Chaparral can be divisible into Granitic (37121) and Mafic (37122) subtypes based on substrate, but floristic distinctions between these two subtypes remain unknown.

Similar to Northern Mixed Chaparral (37110), this plant community is found in areas with somewhat lower precipitation and more moderate temperatures. This plant community is often found adjacent to and on moister sites than Chamise Chaparral (37200).

Characteristic Species that occur within the plant community include Toyon (*Adenostoma fasciculatum*), Eastwood's manzanita (*Arctostaphylos glandulosa*), white fairy lantern (*Calochortus albus*), woolly-leaved ceanothus (*Ceanothus tomentosus olivaceus*), bush poppy (*Dendromecon rigida*), deer weed (*Lotus scoparius*), scrub oak (*Quercus dumosa*), sugar bush (*Rhus ovata*), laurel sumac (*Rhus laurina*), white sage (*Salvia apiana*), and Our Lord's Candle (*Hesperoyucca whipplei*).

General distribution is similar to Northern Mixed Chaparral (37110) but relatively infrequent in northern San Diego compared to its abundance in southern San Diego. It is also the predominant chaparral type in Ventura, Los Angeles, San Bernardino, Riverside, and San Diego counties. This plant community is located north of the Project site. At this point, the higher elevation provides more moisture availability and Chamise Chaparral converts to Southern Mixed Chaparral.

Southern Riparian Scrub (63300)

Southern Riparian Scrub vegetation is a generalized plant community that occurs in association with watercourses and water bodies. The representative plant species are typically well adapted to a hydrological regime ranging from semi-permanent inundation to occasional soil saturation on or near the surface during at least a portion of the growing season. This community typically consists of a relatively dense tangle of broad-leaved, winter-deciduous riparian thickets typically dominated by willow species.

The Southern Riparian Scrub receives sufficient flow to support a cluster of arroyo willow (*Salix lasiolepis*) and cottonwood (*Populus fremontii*) trees. This community occurs south of the Project site along the San Diego River.

Coastal Sage-Chaparral Scrub (37600)

This plant community contains a mix of sclerophyllous, woody chaparral species and drought-deciduous, malacophyllous sage scrub species. It is often described as a post-fire successional community and is a catch-all type intermediate between Coastal Scrubs (32000) and chaparrals (37000).

Characteristic Species that occur within the plant community include chamise (*Adenostoma fasciculata*), coastal sage (*Artemisia californica*), black sage (*Salvia mellifera*), and poison oak (*Toxicodendron diversilobum*).

It is often found on the outer Coast Ranges and Peninsular Range from the Big Sur Coast south to Baja. Within the 1-mile buffer area, this vegetation community is limited to a single area north of the Project site that contains a mix of coastal sage scrub and southern mixed chaparral.

Southern Arroyo Willow Riparian Forest

Southern Arroyo Willow Riparian Forest is similar to Southern Riparian Scrub, except the vegetation is much more mature and is dominated by a dense stand of arroyo willows (*Salix lasiolepis*). The representative plant species are typically well adapted to a hydrological regime ranging from semi-permanent inundation to occasional soil saturation on or near the surface during at least a portion of the growing season. This community typically consists of a relatively dense tangle of arroyo willow with little to no understory.

The Southern Arroyo Willow Riparian Forest receives sufficient flow to support a cluster of arroyo willow (*Salix lasiolepis*) with a sparse understory of scattered mule fat (*Baccharis salicifolia*). This community occurs east of the Project site and north of the San Diego River along the edges of the Santee Recreation Lakes.

Southern Cottonwood-willow Riparian Forest

Southern Cottonwood-willow Riparian Forest consists of tall, open, broad-leaved winter-deciduous trees dominated by cottonwood (*Populus fremontii*) and several willow species and is

similar to Central Coast Cottonwood-Sycamore Riparian Forest (61210); although, apparently with less coast live oak (*Quercus agrifolia*) or alder (*Alnus rhombifolia*). The understory of this community usually consists of shrubby willows.

This community occurs around sub-irrigated and frequently overflowed lands along rivers and streams. The dominant species require moist, bare mineral soil for germination and establishment. This is provided after flood waters recede, leading to uniform-aged stands in this seral type.

Characteristic species that occur within the plant community include: mugwort (*Artemisia douglasiana*), wildlife cucumber (*Marah macrocarpus*), western sycamore (*Platanus racemosa*), cottonwood (*Populus fremontii*), black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and nettle (*Urtica holosericea*).

This community occurs along perennially wet stream reaches of the Transverse and Peninsular Ranges, from Santa Barbara County south to Baja California Norte, and east to the edge of the deserts. This community occurs along the portion of Sycamore Creek that occurs within the existing golf course area southeast of the Project in the City of Santee.

Southern Coast Live Oak Riparian Forest

Southern Coast Live Oak Riparian Forest is open to locally dense evergreen sclerophyllous riparian woodlands dominated by coast live oak (*Quercus agrifolia*). This community appears to be richer in herbs and poorer in understory shrubs than other riparian communities. It is similar to and questionably distinct from Central Coast Live Oak Riparian Forest (61220).

This community often occurs along bottomlands and outer flood plains along larger streams, on fine-grained, rich alluvium.

Characteristic species that occur within the plant community include coast live oak, big leaf maple (*Acer macrophyllum*), mugwort, toyon, wild cucumber, heart-leaved keckiella (*Keckiella cordifolia*), wild honey suckle (*Lonicera subspicata*), skunk brush (*Rhus trilobata*), blackberry (*Rubus ursinus*), Mexican elderberry (*Sambucus mexicana*), and poison oak.

This plant community commonly occurs within canyons and valleys of coastal southern California, mostly south of Point Conception. Southern Coast Live Oak Riparian Forest occurs west of the Project site along Oak Canyon.

Coastal and Valley Freshwater Marsh (52410)

This community is dominated by perennial, emergent monocots 4 to 5 meters tall, often forming completely closed canopies. Bulrush (*Scirpus* sp.) and cattails (*Typha* sp.) dominate this community.

Coastal and Valley Freshwater Marsh occurs on sites with still water (lacking significant current) permanently flooded by fresh water (rather than brackish, alkaline, or variable). Prolonged saturation of this community permits accumulation of deep, peaty soils.

Characteristic species that occur within this plant community include rough sedge (*Carex senta*), yellow nut-grass (*Cyperus esculentus*), tall cyperus (*Cyperus eragrostis*), spikerush (*Eleocharis* spp), hard-stemmed bulrush (*Scirpus acutus*), *S. americanus*, *S. californicus*, *S. robustus*, Sparganium eurycarpum, narrow-leaved cattail (*Typha angustifolia*), and broad-leaved cattail (*Typha domingensis*).

This community occurs occasionally along the coast and in coastal valleys near river mouths and around the margins of lakes and springs. It is most extensive in the upper portion of the Sacramento-San Joaquin River Delta, and is common in the Sacramento and San Joaquin Valleys in river oxbows and other areas on the flood plain. It also occurs occasionally along the Colorado River on the California-Arizona border, but is now much reduced in area through its entire range. This vegetation community occurs along the northern edge of Hollins Lake within the Mission Trails Regional Park.

Freshwater, Open Water (13100)

Although not a vegetation community, Freshwater, Open Water does provide suitable habitat for a number of aquatic plants and wildlife species. The portion of the 1-mile buffer area around the Project site that contains open water is specifically associated with Hollins Lake within the Mission Trails Regional Park, the Santee Recreation Lakes, and a few golf course lakes associated with the Carlton Oaks Country Club. Water in these lakes is present year round. The Holland classification code for this plant community is 13100.

Urban Developed (12000)

Urban Developed areas are typically paved and landscaped and provide little to no habitat value to wildlife species. Unlike disturbed areas, which may revert back to a native or non-native plant community over time, these areas are typically paved and have no potential for reestablishing a viable vegetation community. This type of “habitat” is not a plant community and is considered to have no value to wildlife.

The Urban Developed areas near the Project site are associated with three main residential developments to the east, southeast, and south of the Project site. There are also some Urban/Developed areas within the Mission Trails Regional Park. The Holland classification code for this plant community is 12000.

Biological Resources: Appendix B(g)(1)

Information required:

Please conduct general surveys for special status species of the 1-mile buffer around the Project site and 100% survey of the linear facilities out to 1,000 feet from the outer edge to supplement 2011 surveys. Then provide discussions of direct, indirect, and cumulative impacts of any special status species found during surveys of the proposed linears.

Response:

Summary of Surveys Completed

Based on technical discussions with staff, the Applicant understands that, in this data request, staff is requesting that a desk top survey be completed for the 1,000-foot buffer around linear facilities. This desk top survey has been completed and the results are shown on Exhibits 2-6. The Applicant further understands that the information provided in the AFC regarding special status species within the 1-mile buffer of the Project site is sufficient for data adequacy purposes.

Direct, Indirect, and Cumulative Impacts

The following is a list of sensitive plant and wildlife species that were observed (*) or previously recorded (**) within the 1,000-foot buffer area of the linear facilities:

- San Diego Barrel Cactus (*Ferocactus viridescens*)*
- Willow Monardella (*Monardella linoides* ssp. *viminea*)*
- Variegated Dudleya (*Dudleya variegata*)*
- Heart-leaved pitcher sage (*Lepichinia cardiophylla*)*
- Cooper's hawk (*Accipiter cooperii*)*
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)*
- Coronado Island skink (*Plestiodon skiltonianus interparietalis*)*
- White-tailed kite (*Elanus leucurus*)*
- San Diego black-tailed jackrabbit (*Lepus californicus*)*
- Coastal California Gnatcatcher (*Polioptila californica californica*)**

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- Willow Monardella (*Monardella linoides* ssp. *viminea*)*
- Variegated Dudleya (*Dudleya variegata*)*
- Coastal California Gnatcatcher (*Polioptila californica californica*)**

Focused pedestrian surveys conducted within portions of the 1,000-foot linear buffer area indicated the presence of San Diego barrel cactus, willow monardella, variegated dudleya, heart-leaved pitcher sage, Cooper's hawk, southern California rufous-crowned sparrow, Coronado Island skink, white-tailed kite, and San Diego black-tailed jackrabbit. No coastal California gnatcatchers were observed or otherwise detected during protocol surveys in 2011 (AFC page 4.12-33). There will be no Project-related impacts to any coastal California gnatcatchers. The following includes a discussion of direct, indirect, and cumulative impacts associated with the above-mentioned species that were observed within the 1,000-foot buffer area.

Direct Impacts

Construction activities associated with the installation, maintenance, and operation of the proposed linear facilities as currently defined will not impact any willow monardella, heart-leaved pitcher sage, southern California rufous-crowned sparrow, or San Diego black-tailed jackrabbit because these species are located in an area that is not anticipated to be impacted by construction of the linear facilities. In addition, no suitable habitat for this species occurs within the 1,000-foot buffer area for linears (AFC page 4.12-39). Therefore, within the 1,000-foot buffer area, there would be no project related impacts to any willow monardella heart-leaved pitcher sage, southern California rufous-crowned sparrow, or San Diego black-tailed jackrabbit.

The proposed linear facilities will potentially impact the San Diego barrel cactus, variegated dudleya, Coronado Island skink, and white-tailed kite (AFC, p. 4.12-39). Construction and installation of the proposed Project will potentially impact approximately 40 San Diego barrel cactus, of which, approximately three individuals are specifically associated with the construction and installation of the linear facilities. Construction and installation of the proposed project will potentially impact approximately 10 variegated dudleya, of which all are specifically associated with the construction and installation of the linear facilities. Construction activity along the linears may impact Coronado Island skink and white talked kite. These are the only sensitive plant and/or wildlife species that will be impacted by project-related activities within the

linear facility portion of the project as addressed in the AFC (page 4.12-39). Vegetation community impacts are included in Table 1 below. Permanent impacts are impacts from permanently developed project components including the Quail Brush power plant, access roads, and gen tie tower footprints. Temporary impacts are those impacts that are only necessary for construction of the Project and can be revegetated once construction activities have been completed. These activities include graded slopes, temporary work areas, and the gas line right-of-way.

Table 1: Habitat Types/Vegetation Communities Impacts to Linear Facilities

Habitat / Vegetation Community	Permanent Impacts (Acres)	Temporary Impacts (Acres)
Diegan Coastal Sage Scrub	0.12	0.46
Diegan Coastal Sage Scrub with non-native grassland	0.02	0.25
Disturbed Habitat	0.03	1.03
Granitic Chamise Chaparral	0.04	0.31
Non-Native Grassland	2.08	7.28

Indirect Impacts

Based on the Project design features and the known locations of the existing sensitive plant and wildlife species, there will be no indirect impacts to sensitive species from project-related activities.

Indirect impacts or secondary effects are those impacts that are reasonably foreseeable and could be caused by the Project outside the Project area. The indirect impacts to sensitive biological resources resulting from construction of the linear facilities that may have the potential to be significant are (1) stormwater pollution and (2) impacts to nesting migratory birds. Water quality in riparian areas can be adversely affected by pollutants in runoff and by sedimentation occurring during construction. Decreased water quality may adversely affect vegetation, aquatic animals, and terrestrial wildlife that depend upon these resources. Construction activities occurring within the Project area but in the vicinity of nesting birds outside the Project area, that generate construction noise and vibration, may have the potential to cause an active nest to fail.

In both cases, Best Management Practices (BMPs) and avoidance measures will be incorporated to reduce impacts to less than significant levels. These measures are provided in the Quail Brush Generation Project AFC, pages 4.13-23, and are summarized in the response below to the data request for information on mitigation measures for impacts to sensitive species found within the linear facilities

Cumulative Impacts

A cumulative impact “consists of an impact which is created as a result of the combination of the [proposed Project] together with other projects causing related impacts” (CCR Title 14 § 15130 [a][1]). The proposed Sycamore Landfill expansion is the only major development project proposed for the East Elliot Community Plan Area. As part of the ongoing CEQA process for the expansion of the Sycamore Landfill, the landfill is working with the City of San Diego to mitigate for biological impacts associated with the expansion in conformance with the City of San Diego

biological guidelines and the MHPAs located within the Multi-Species Conservation Plan (MSCP). It is not anticipated that the Proposed Project, in combination with the Sycamore Landfill, would have any cumulative impacts on the special status species identified in the 1,000 foot buffer surrounding the linear.

Specifically, protection of biological resources in the project area occurs at a regional level through implementation of the MSCP and the City Subarea Plan. Projects that conform to the MSCP, the Subarea Plan, and implementing ordinances (including the City of San Diego's Biology Guidelines and Environmentally Sensitive Lands Regulations) are not anticipated to result in a significant cumulative impact to biological resources covered by the MSCP (City of San Diego 2011). These resources include vegetation communities identified as Tier I through IV, and species covered by the City Subarea Plan for the "Eastern Area" which covers the proposed Project. By this standard, any impacts to the vegetation communities listed in Table 4.12-9 of the AFC, and covered species, which include Cooper's hawk (*Accipiter cooperii*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), San Diego barrel cactus, variegated dudleya, Coronado Island skink and white tailed kite, are the only special status species located within the 1,000-foot linear buffer that will be impacted by the proposed Project, and would not be cumulatively significant.

Biological Resources: Appendix B(g)(1)

Information required:

Provide suggested mitigation measures of any special status species found during surveys of the linears.

Response:

Mitigation Measure Bio-3 currently provides:

To minimize the impacts to San Diego barrel cactus, a Sensitive Plant Relocation Plan will be prepared similar to the existing plan currently approved for the adjacent Sycamore Landfill. The sensitive plants will be relocated to the existing Sycamore Landfill relocation site or to the proposed exchange parcel or other suitable habitat area as deemed appropriate by the City of San Diego. If any variegated dudleya are impacted by construction of the gen tie, a species specific Sensitive Plant Relocation Plan will be prepared and appropriate mitigation approved by the City of San Diego. (AFC, p. 4.12-47).

This measure will be amended to also apply to the ten variegated dudleya, as follows:

To minimize the impacts to San Diego barrel cactus and variegated dudleya, a Sensitive Plant Relocation Plan will be prepared similar to the existing plan currently approved for the adjacent Sycamore Landfill. The sensitive plants will be relocated to the existing Sycamore Landfill relocation site or to the proposed exchange parcel or other suitable habitat area as deemed appropriate by the City of San Diego. If any variegated dudleya are impacted by construction of the gen tie, a species-specific Sensitive Plant Relocation Plan will be prepared and appropriate mitigation approved by the City of San Diego.

Mitigation measures for impacts to Sensitive Species Found During Surveys of Linear Facilities will require a plant relocation plan, similar to the one used at the Sycamore Landfill. The plan

will include a conservation area appropriate for relocating the three individual San Diego barrel cactus and ten variegated dudleya.

Habitat Types/Vegetation Communities

The City of San Diego has prepared pre-approved mitigation ratios for impacts to vegetation communities identified in the MSCP Subarea Plan. Based on the MSCP, Tier II and Tier III habitats require mitigation replacement ratio of 1:1 for impacts to habitat within the MHPA that will be replaced by habitat preserved within the MHPA. Therefore, project related impacts would be mitigated by the conservation of 0.46 acre of Diegan coastal sage scrub, 0.31 acre of granitic chamise chaparral, and 7.28 acres of non-native grasslands (Table 2). The mitigation mentioned above is specifically related to linear facilities only. Additional mitigation measures are required for permanent impacts associated with the plant facility and the Switchyard and are included in the AFC.

All temporary impacts to linear facilities will be restored with native vegetation as appropriate within the proposed project development such as disturbed graded slopes and temporary work areas. Revegetation of temporary impact areas may be considered as part of the overall mitigation if a restoration plan is prepared to ensure proper restoration and meets design requirements as approved by the City of San Diego. Restoration of areas of low quality non-native grasslands and low quality coastal sage scrub to high quality habitats is beneficial in providing more appropriate habitat for sensitive plant and wildlife species that may be occupied by the sensitive plant and wildlife species that are known to occur in the area in the future. These mitigation measures mentioned above will reduce the impacts to less than significant.

Table 2: Mitigation Requirements for Impacts to Habitat Types/Vegetation Communities

Habitat / Vegetation Community	Habitat Replacement at a 1:1 Ratio (Acres)	Habitat Restoration at a 1:1 Ratio (Acres)
Diegan Coastal Sage Scrub	0.12	0.46
Diegan Coastal Sage Scrub with non-native grassland	0.02	0.25
Disturbed Habitat	0.03	1.03
Granitic Chamise Chaparral	0.04	0.31
Non-Native Grassland	2.08	7.28

Biological Resources: Appendix B(g)(13)(A)

Information required:

Please provide a map at a scale of 1:100,000 (or other suitable scale) which includes sensitive biological resources out to 10 miles of the project site and shows the project site, linears, laydown site(s), roads, proposed mitigation lands, and any Multiple Species Conservation Program and Multi-Habitat Planning Area boundaries.

Response:

MBA has prepared the following exhibits in order to respond to this request:

- Exhibits 2a-1, 2b-1, 2c-1, and 2d-1 showing the location of sensitive plant species within a 10-mile radius of the Proposed Project;
- Exhibits 2a-2, 2b-2, 2c-2, and 2d-2 showing the location of sensitive wildlife within a 10-mile radius of the Proposed Project.

These exhibits were prepared using a 1:100,000 scale map; however, since the sensitive species that occur within a 10-mile radius of the Project site do not fit within a single map at a 1:100,000 scale, MBA created two four-panel maps to clearly depict the required information.

Each map shows the location of the Proposed Project and associated facilities including access roads, the MSCP boundary line, the City of San Diego MSCP Subarea boundary line, and the MHPA boundary line. Because specific locations for laydown sites and proposed mitigation lands are still not known by the Applicant, these are not depicted on the maps. However, it is assumed that these project elements will be located within the Project area boundary as currently defined, and within the area previously surveyed for biological resources.

Biological Resources: Appendix B(g)(13)(A)(i), (ii), (iii), and (iv)

Information required:

Please conduct a 9 quad search of the CNDDDB for the following quads: Del Mar, El Cajon, Jamul Mountains, La Jolla, La Mesa, National City, Point Loma, San Vicente Reservoir and Poway. Take this list and amend existing Special-Status Plant and Wildlife Tables 4.12-5 and 4.12-6 in AFC with all species listed in CNDDDB search. Within the tables under the column “Potential to Occur/Known Occurrence/Suitable Habitat”, please explain for each species from the search its potential to occur.

The 9 quad CNDDDB search in the AFC provided a list of 75 species (including plant communities). Staff conducted the same 9 quad CNDDDB search and found 179 species (including plant communities). Because of this discrepancy, and no explanation as to the reasoning behind excluding several species abbreviated list for field surveys, the lack of general surveys for the 1-mile buffer and 100% coverage for linear facilities out to 1,000 feet, and conducting surveys late in the year, it is not known if all federal and state endangered species have been accounted for.

Response:

Tables 4.12-5 and 4.12-6 in the AFC are incorrect because they were mistakenly based on the results of a preliminary CNDDDB search. MBA has conducted the requested CNDDDB 9-quad search is included as Attachment B.2. Attachment B.2 identifies 180 special status species, 92 sensitive plant species, 75 sensitive wildlife species, and 13 sensitive plant communities. One additional sensitive plant species, graceful tarplant (*Holocarpha virgata* ssp. *elongata*), was added to the list of sensitive species at the request of the California Department of Fish and Game (CDFG) staff, but was not included in the 9-quad CNDDDB search. This species does not have a CNDDDB recorded occurrence within the 9-quad search area. On rare occasions, information is provided by a resource agency, in this case CDFG, on a known location of sensitive species that are not included in the CNDDDB. These 180 sensitive biological resources

were evaluated for potential occurrence within the Project site. Tables 4.12-5 and 4.12-6 have been updated to include an evaluation of all 167 sensitive plant and wildlife species (Attachment B.3, Species Tables). In addition, Table 3: 9-Quad CNDDDB List of Sensitive Plant communities has been added. The additional thirteen sensitive biological resources evaluated for potential to occur are associated with sensitive plant communities, which include the plant communities shown in Table 3.

Table 3: 9-Quad CNDDDB List of Sensitive Plant Communities

Sensitive Plant Communities Identified			
Within Project Site	Within 1-Mile Buffer	Outside of 1-Mile Buffer	
Southern Riparian Scrub	San Diego Mesa Hardpan Vernal Pool	Maritime Succulent Scrub	
Southern Sycamore Alder Riparian Woodland	Southern Coast Live Oak Riparian Forest	San Diego Mesa Clay Pan Vernal Pool	
	Southern Cottonwood Willow Riparian Forest	Southern Coastal Salt Marsh	
	Southern Riparian Forest		Southern Interior Cypress Forest
			Southern Maritime Chaparral
		Torrey Pine Forest	
		Valley Needlegrass Grassland	

Biological Resources: Appendix B(g)(13)(B)

Information required:

Please provide complete list of species observed within 1 mile of the project site and 1,000 feet from the outer edge of proposed linear facility corridors once surveys are completed.

Response:

A complete list of all species observed within a 1-mile buffer area around the Project site and 1,000 feet from linear facilities is included in Attachment B.4, Species Compendium. This list of species includes all of the species that were observed within the Project site and those found within the buffer area surrounding the Project site and linear facilities. No additional surveys were conducted per technical discussions with CEC staff. The Applicant understands that in this data request, staff is requesting that a desk top survey be completed for the 1-mile buffer around the Project area, and the 1,000-foot buffer around linear facilities. This desk top survey has been completed and the results are shown on Exhibits 2-6. The Applicant further understands that the information provided in the AFC regarding special status species within the 1-mile buffer of the Project site is sufficient for data adequacy purposes.

Biological Resources: Appendix B(g)(13)(B)(i)

Information required:

Please provide a map at a scale of 1:6,000 or color aerial photographs at a scale of 1"=500' with a 30 percent overlap that shows the proposed project site and related facilities. This map should include the 1-mile buffer around the project site and 1,000 feet from the out edge of linear facilities.

Response:

MBA has created the following maps in response to this request:

- Exhibit 3 - 1-Mile Buffer Facilities Index Map
- Exhibit 3a-1 - 1-Mile Buffer Facilities Index Map - Quadrant A
- Exhibit 3a-2 - 1-Mile Buffer Facilities Index Map - Quadrant B
- Exhibit 3a-3 - 1-Mile Buffer Facilities Index Map - Quadrant C
- Exhibit 3a-4 - 1-Mile Buffer Facilities Index Map - Quadrant D
- Exhibit 3a-5 - 1-Mile Buffer Facilities Index Map - Quadrant E
- Exhibit 3a-6 - 1-Mile Buffer Facilities Index Map - Quadrant F
- Exhibit 3a-7 - 1-Mile Buffer Facilities Index Map - Quadrant G
- Exhibit 3a-8 - 1-Mile Buffer Facilities Index Map - Quadrant H

Due to the size of the 1-mile buffer area, a series of 7 panels were necessary to cover the entire 1-mile buffer area at a 1:6,000 scale. The updated maps include the 30 percent overlay of the proposed Project site and related facilities as requested. They also include the 1-mile buffer area and the 1,000-foot buffer around the edge of the linear facilities.

Biological Resources: Appendix B(g)(13)(B)(i)

Information required:

Please provide a map at a scale of 1:6,000 or color aerial photographs at a scale of 1"=500' with a 30 percent overlap that shows the proposed project site and related facilities including linears and includes species from CNDDDB search. This map should include the 1-mile buffer around the project site and 1,000 feet from the out edge of linear facilities.

Response:

MBA has created the following maps in response to this request:

Exhibit 4 - CNDDDB 1-Mile Project Site Buffer Index Map

Exhibit 4a-1 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant A

Exhibit 4a-2 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant B

Exhibit 4a-3 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant C

Exhibit 4a-4 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant D

Exhibit 4a-5 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant E

Exhibit 4a-6 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant F

Exhibit 4a-7 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant G

Exhibit 4a-8 - CNDDDB 1-Mile Project Site Buffer Index Map - Quadrant H

Due to the size of the 1-mile buffer area, a series of 7 panels were necessary cover the entire 1-mile buffer area at a 1:6,000 scale. The updated maps include the 30 percent overlay of the

proposed Project site and related facilities. They also include the 1-mile buffer area as well as the 1,000 foot buffer around the edge of the linear facilities.

Biological Resources: Appendix B(g)(13)(B)(i)

Information required:

Please provide a map at a scale of 1:6,000 or color aerial photographs at a scale of 1"=500' with a 30 percent overlap that shows the proposed project site and related facilities including linears and includes species from project related field surveys. This map should include the 1-mile buffer around the project site and 1,000 feet from the out edge of linear facilities.

Response:

A series of maps was created at a 1:6,000 scale that depicts the proposed Project site and related facilities as well as all sensitive species recorded during Project-related surveys within the 1-mile buffer area and 1,000-foot buffer of linear facilities. Due to the size of the 1-mile buffer area, a series of 7 panels were necessary cover the entire 1-mile buffer area at a 1:6,000 scale. The maps (Exhibit 5) include an index map and Quadrants A through H. The updated maps include the 30 percent overlay of the proposed Project site and related facilities. They also include the 1-mile buffer area as well as the 1,000 foot buffer around the edge of the linear facilities.

Biological Resources: Appendix B(g)(13)(C)(i)

Information required:

Please provide a complete list of all the species observed in the 1-mile buffer around the project site and out to 1,000 feet from the outer edge of linear facilities once surveys are completed.

Response:

Please see response to data request for Appendix B(G)(1) above for a discussion of the survey process for the 1-mile buffer around the Project site and 1,000 feet buffer around the linear facilities.

Please see response to data request for Appendix B(g)(13)(B) for a complete list of all species observed with the 1-mile buffer around the Project site and 1,000 feet buffer around the linear facilities.

Biological Resources: Appendix B(g)(13)(C)(ii)

Information required:

Please follow instructions from first paragraph in Appendix B (g) (13) (A) (i) above.

Please provide a vegetation communities map for the 1-mile buffer around project site and out to 1,000 feet from the outer edge of proposed linear facilities. Include any sensitive vegetation communities on this map.

As discussed above for Appendix B (g) (13) (A) (i), it is not known if all sensitive species and habitats with potential to occur have been accounted for.

Response:

Please see response to data request for Appendix B(g)(13)(A)(i), above, for a discussion of the completion of the 9-quad search of the CNDDDB. The results of this search are included here as Attachment B.2 – CNDDDB List.

Please see response to data request for Appendix B(g)(1), above, for a discussion regarding preparation of a Vegetation Communities Map, which is included here as Exhibit 1 – Vegetation Communities within a 1-Mile Radius of Project Site. Exhibit 1 also delineates the 1,000-foot buffer around the linear facilities.

Biological Resources: Appendix B(g)(13)(D)**Information required:**

As discussed under Appendix B (g) (13) (A) (i) above, the results of all field studies and seasonal surveys used to provide biological baseline information about the project site and associated facilities are incomplete.

Please provide a description and results of all field studies and seasonal surveys used to provide biological baseline information for the project site and associated facilities for the 1-mile buffer around project site (100% coverage not required) and complete coverage out to 1,000 feet from the outer edge of linear facilities.

Response:

Because MBA did not have access to all surrounding, privately held lands, surveys conducted for biological resources associated with the proposed Project site did not include the entire 1-mile Project buffer area or the 1,000-foot buffer for linear facilities. However, some portions of these areas were surveyed during the general biological resources studies for the proposed Project on June 15, 22, 30, and July 7, 2011. In response to these Data Adequacy comments, and per technical discussions with CEC staff, a desktop study was conducted to document the existing conditions and verify the surrounding land use and vegetation communities present in the buffer areas that were not subject to pedestrian surveys. The responses in this Supplement provide the results of this effort.

As depicted in Exhibit 3a-1, 3a-2, 3a-4, 3a-5, 3a-7, and 3a-8 for Quadrants A, B, D, E, G, and H, project-related surveys within offsite adjacent properties were conducted to get a better understanding of surrounding land use. No pedestrian surveys were conducted in areas depicted in Exhibits 3a-3 and 3a-6 (Quadrants C and F, respectively).

MBA typically surveys a 1-mile radius of a project site on a general level to identify adjacent land use and connectivity of suitable habitat for sensitive plant and wildlife species that commonly occur in the vicinity of the site. A detailed vegetation map was obtained from SanGIS, which was created as part of the base-line information for the MSCP. This information is general in nature and requires some ground truthing to verify existing conditions. MBA evaluated the existing vegetation map data and adjusted boundary lines based on existing conditions onsite.

Based on our assessment of the 1-mile buffer area, the area includes a total of 4,007.22 acres of land. Table 4 below includes a list of all the habitat types/vegetation communities documented within the 1-mile buffer area. Vegetation communities with an asterisk are recorded in the CNDDDB search as a CDFG sensitive plant community.

Table 4: Habitat Types/Vegetation Communities in the 1-Mile Buffer

Habitat / Vegetation Community	Acres
Coastal and Valley Freshwater Marsh	1.60
Coastal Sage Scrub-Chaparral Scrub	4.71
Diegan Coastal Sage Scrub	1,185.38
Diegan Coastal Sage Scrub with non-native grassland	11.83
Disturbed Habitat	219.09
Freshwater: Open Water	22.89
Granitic Chamise Chaparral	552.30
Granitic Chamise Chaparral with non-native grassland	9.78
Granitic Southern Mixed Chaparral with non-native grassland	1.00
Non-Native Grassland	819.04
Non-Vegetated Channel	19.68
Riparian Woodlands	1.70
Southern Coast Live Oak Riparian Forest*	4.97
Southern Mixed Chaparral	39.61
Southern Cottonwood-Willow Riparian Forest*	6.15
Southern Riparian Scrub*	93.80
Southern Arroyo Willow Riparian Forest	7.24
Southern Riparian Forest	66.06
Southern Sycamore-Alder Riparian Woodland*	21.77
Urban/Developed	918.62
Total	4,007.22

* Included in CNDDDB search as a CDFG sensitive plant community

Table 5 below includes a list of all the habitat types/vegetation communities documented within the 1,000-foot buffer of linear facilities.

Table 5: Habitat Types/Vegetation Communities and Impacts within the 1,000-foot buffer of Linear Facilities

Habitat / Vegetation Community	Acres
Diegan Coastal Sage Scrub	73.92
Diegan Coastal Sage Scrub with non-native grassland	10.88
Disturbed Habitat	37.03
Granitic Chamise Chaparral	34.80
Granitic Southern Mixed Chaparral with non-native grassland	1.00
Non-Native Grassland	247.40
Non-Vegetated Channel	7.82
Riparian Woodlands	0.55
Southern Riparian Scrub*	1.68
Southern Sycamore-Alder Riparian Woodland*	7.41
Urban/Developed	39.04
Total	461.53

* Included in CNDDDB search as a CDFG sensitive plant community

Additional information regarding sensitive plant and wildlife species occurring within the 1-mile buffer was evaluated at a desktop level based on known recorded occurrences of sensitive species and sensitive habitats based on the most current version of the CNDDDB. This was also cross-referenced with soils data and USGS topographic quadrangle maps to better understand the potential for sensitive plant and wildlife species to occur within adjacent properties.

Biological Resources: Appendix B(g)(13)(D)(i)

Information required:

Please describe in detail the methods used for botanical and wildlife field surveys.

As discussed under Appendix B (g) (13) (A) (i) above, the results of all field studies and seasonal surveys used to provide biological baseline information about the Project site and associated facilities are incomplete.

Please explain why *Bloomeria clevelandii* occurs on the list of plants found during field surveys but is not mapped with the other special status plants and is not discussed in the impacts and mitigation sections. If this species was found please provide a map of its location(s) as well as a discussion of the species, impacts and mitigation.

Response:

Botanical surveys began with an overview search of the CNDDDB for plant species previously recorded to occur within a three-mile radius of the Project site. Species within this range typically have the highest potential to occur onsite due to the close proximity of existing populations. Following a review of the CNDDDB, a US Geological Survey topographic map was reviewed to identify the survey area elevation limits. A soil map was created to identify the existing soils within the Project site. Many sensitive plant species have specific soils requirements, such as alkaline, clay, or volcanic soils. Potentially occurring plant species were eliminated from consideration prior to conducting plant surveys based on soil requirements and elevation limits.

Photographs were compiled of the remaining plant species identified as potentially occurring within the Project site and brought to the Project site during plant surveys, which were conducted on May 10, 11, 12, and July 7, 2011 by MBA biologists Scott Crawford, Diana Lloyd, Kelly Rios, and Dale Hameister. A current resume for Dale Hameister is included in Attachment B.5, Resume, as requested during the September 21, 2011 meeting with technical staff. The sensitive plant survey and habitat assessment were carried out simultaneously over 100 percent of the survey area during the same field effort, rather than conducting a sensitive plant survey subsequent to and based upon the results of the habitat assessment. Over four days of focused surveys, each biologist surveyed at a rate of approximately 35 acres per day. Sensitive plant species observed during the sensitive plant/habitat assessment surveys were recorded using a Trimble GPS unit with sub-meter accuracy. Data collected during this survey were used to prepare the detailed vegetation map for the Project.

Wildlife surveys began by conducting the CNDDDB 9-quad and 10-mile radius records searches using CNDDDB data with ARCVIEW GIS software. The detailed vegetation map prepared from the data collected during the habitat assessment/sensitive plant survey was used for the wildlife surveys. Habitat requirements for each of the 75 potentially occurring wildlife species were evaluated. Wildlife surveys were conducted within the survey area on June 15, 22, 30, and July

7, 2011. Additional surveys were also conducted for coastal California gnatcatcher (*Polioptila californica californica*) on May 25, June 3, 9, 15, 23, and 30, 2011; and for Herme's copper butterfly (*Lycaena hermes*) on May 25, June 9, 23, and July 7, 2011. Surveys were conducted by MBA biologists Scott Crawford, Diana Lloyd, and Kelly Rios. Sensitive wildlife species observed during the wildlife surveys were recorded using a Trimble GPS unit with sub-meter accuracy. The survey was conducted within the designated survey area as indicated in Exhibit 3 submitted in Appendix H of the AFC.

Bloomeria clevelandii

During the sensitive plant surveys conducted during the May through June blooming period, the *Bloomeria* species observed onsite was misidentified as the sensitive San Diego goldenstar (*Bloomeria clevelandii*). This species was included in an early version of the species compendium, but was later determined to be the common goldenstar (*Bloomeria crocea*) species. Two key characteristics that were used to identify this species include a brown line that runs on the bottom of the flower petal in *Bloomeria crocea* and is absent or green in *Bloomeria clevelandii*. Also, the stamen are straight up in *Bloomeria crocea* and lay almost flat against the petals in *Bloomeria clevelandii*. The goldenstars within the Project site exhibited a brown stripe along the bottom of the flower petal and the male flower parts struck straight up as in *Bloomeria crocea*. The occurrence of *Bloomeria Clevelandii* in the species compendium was an oversight and should not have been included.

Quino Checkerspot Butterfly

While the specific request for information on the Quino checkerspot butterfly was deleted from the final Data Adequacy Worksheet package, at the September 21, 2011, CEC staff requested that MBA provide a response for this species. The Quino checkerspot butterfly's current known distribution is in the coastal plains and inland valleys in portions of Riverside and San Diego counties and northwestern Baja California. The species' historic range includes areas of southern California and Baja California, and portions of San Diego, Orange, Los Angeles, and western Riverside counties. This species is threatened by one or more of the following factors: habitat loss and fragmentation due to urban development, over collection and other human disturbances, drought, fire, or other weather extremes, and by the displacement of the primary larval food plant by non-native grasses and other weedy annuals.

The Quino checkerspot butterfly exists in low elevation (sea level to 3,000 feet), open grasslands, and sunny openings within shrubland habitats; it is usually associated with clay soils or deposits of cryptogamic crust. The cryptogamic plants develop a hard crust that is occupied by low growing herbaceous annuals including the Quino checkerspot butterfly larvae's primary food plant, dwarf plantain (*Plantago erecta*) and the larvae's additional food plant, owl's clover (*Castilleja exserta*). The Quino checkerspot butterfly is found only in areas where there are dense stands of one or both of the larvae's food plants.

Adult Quino checkerspot butterflies live from 4 to 8 weeks and are in flight from approximately late January to mid-May. Courtship behavior consists of male butterflies hill-topping on open or sparsely vegetated rounded hilltops, ridgelines, and rocky outcrops. Adults sun themselves at the base of hills and have been observed flying through areas of unsuitable habitat, most likely dispersing to sites with the food plants. After mating, female adults lay eggs, which hatch in about 10 days. The larvae feed on the food plants for about two weeks, at which time the food plants senesce and wither. Larvae then locate cracks in the soil or other concealed areas where

they diapause and remain dormant during the dry season until the next winter. After the winter, plants germinate following fall or winter rains, the larvae pupate into adults. The larvae may remain dormant for one or more seasons, which is dependent on how quickly rain facilitates the sprouting of food plant seeds. In approximately a two-week period, the adults emerge, feed, disperse, reproduce, and then die.

Although Scott Crawford holds a permit to conduct protocol Quino checkerspot butterfly surveys (U.S. Fish and Wildlife Service [USFWS] Permit # TE 019947-03), at no time were any protocol surveys conducted within the survey area for Quino checkerspot butterfly. MBA conducted a habitat assessment for this species and determined that only a few host plants occur within the Project site, but not in enough numbers to support a population of this species. Dwarf plantago and purple owl's clover generally occur during the Quino checkerspot butterfly's flight season, normally from early February to late April. However, during times of extended rainfall, these plants can be identified as late as the beginning of June. Measurable rainfall was recorded on April 8 and 26, May 9, 18, and 28, and June 1, and 8, 2011. This extended rainy season provided sufficient moisture to sustain the Quino checkerspot butterfly host plants within the Project site. There was no evidence of any additional plants including dried-up plants, which often can still be identified long after the plant has died.

Known populations of Quino checkerspot butterfly typically occur where *Plantago* patches are extensive and dense, at roughly 5,000 plants/square meter. The survey area contained three individual *Plantago* and six individual purple owls' clover specimens. There is not a sufficient density of *Plantago* within the Project site to support a population of Quino checkerspot butterfly. Other key constituent habitat components also absent from the Project site include rocky outcrops and cryptogamic soils crust.

The only habitat components observed within the survey area include marginal quality coastal sage scrub habitat and hilltop areas. Patrick Gower, a USFWS representative, indicated that the known population of Quino checkerspot butterfly in the Mission Trails area has not been observed since the 2007 fire (Personal Communication June 8, 2011). Although marginal quality habitat has started to return to the area, there is still not a sufficient population of host plant to support Quino checkerspot butterfly. Based on MBA survey efforts, the lack of a sufficient number of host plants, a lack of other constituent habitat components and the assessment by Mr. Gower of the USFWS, in Scott Crawford's professional opinion, focused surveys for Quino checkerspot butterfly were not necessary. However, the determination of whether protocol surveys are required on a specific project site is at the discretion of the USFWS.

Based on the current USFWS protocol, all areas that are not excluded should be surveyed for butterflies, regardless of Quino checkerspot butterfly host plant presence, absence, and/or density. The proposed Project site and surrounding areas are not considered excluded. Portions of the Project that provide suitable habitat for Quino checkerspot butterfly include sparse Diegan coastal sage scrub, open grassland areas, and any exposed hilltop areas. Although the key constituent habitat elements do not occur within the Project site, it is highly likely that the USFWS will require Quino checkerspot butterfly protocol during the 2012 survey season to determine presence/absence. Additional consultation with USFWS will be required to determine if protocol surveys are warranted at this location based on known recorded occurrences, existing site conditions, and current range of the species.

Based on the results of air quality modeling as presented in Section 4.7, Air Quality of the AFC, cumulative impacts associated to vegetation and associated special status species from nitrogen deposition are expected to be less than significant.

Biological Resources: Appendix B(i)(1)(A)

Information required:

Please Revise Table to Include Pages Referencing AFC Discussion of LORS.

Response:

Table 4.12-10 from the LORS for Biological Resources has been marked to include page number referencing to the AFC discussion. The table is in Attachment B.6, LORS Reference Pages.