

8.16 BIOLOGICAL RESOURCES

8.16.1 INTRODUCTION

The Kings River Conservation District (KRCD) is proposing to construct the Kings River Conservation District Community Power Plant (KRCD CPP), a nominal 565 megawatt (MW) power plant east of the City of Parlier in Fresno County. The KRCD CPP will be constructed on an approximately 32-acre parcel with associated linear facilities for electrical interconnection, natural gas interconnection and water supply. The objectives of this section are to describe the biological resources that occur in the general area of the KRCD CPP, including threatened and endangered species and their habitats, and to describe the potential impacts that could occur to those species as a result of the proposed KRCD CPP. This section includes a description of the federal, state and local laws, ordinances, regulations, and standards (LORS) that apply to biological resources protection, the setting and conditions of the area, the methods that were used to evaluate the potential presence of threatened and endangered species, and the potential adverse impacts that could occur to biological resources as a result of the proposed KRCD CPP.

8.16.2 AFFECTED ENVIRONMENT

8.16.2.1 Regional Setting

The proposed KRCD CPP is located in the southern San Joaquin Valley, near the City of Parlier, in Fresno County. The general region has been developed into agricultural crops and urban and rural development. This location is within the 1.2 million acre KRCD service territory covering portions of Fresno, Kings and Tulare counties. The region's climate is Mediterranean, characterized by hot, dry summers and cool wet winters. Summer temperatures frequently exceed 100 degrees Fahrenheit, while winter temperatures are generally mild, with few freezing days per year. Rainfall averages 12 inches per year, with the wettest months between November and March. A regional overview map is provided as Figure 8.16-1.

8.16.2.2 Project Area Setting

The following discussion details the biological conditions in the area of the proposed KRCD CPP including the project site, construction staging areas and associated linear facilities. A figure showing biological resources in the KRCD CPP project area (including the project site, construction staging areas and associated linear facilities) is provided as Figure 8.16-2.

KRCD has purchased the proposed project site, which is approximately 32 acres in size. The site is located in an area currently zoned for agriculture and currently being used predominately for agricultural purposes (vineyards). Existing structures on the project site include a vacant rural dwelling, detached garage, and barn. Additionally, a 15-acre area of a 40-acre parcel to the immediate south of the project site will be used for temporary staging and parking during



construction. That land is a actively farmed vineyard. Primary access to the generation site will be provided via a paved entrance from South Bethel Avenue.

The KRCDD CPP project site is non-native land that is an actively farmed vineyard (Figure 8.16-2). The current land use for the project site and construction staging area is agriculture, both being actively farmed vineyards. No habitat is present for special-status species or habitats. The rows between the vines are plowed, and the area underneath the vines is sprayed to control weeds. In addition to vines, the properties possess a few non-native weedy grasses and forbes in the vineyards.

The land use surrounding the project site includes a closed county landfill to the east, the City of Parlier Waste Water Treatment Plant (WWTP) to the north and agricultural areas to the south and west (Figure 8.16-2). The surrounding land has been leveled and developed, actively farmed, and provides no habitat for special-status species or sensitive habitats. Additional information on land and agricultural uses on the site in the general project area is included in Section 8.4, Land Use and Agriculture and on Figures 8.4-1 and 8.4-2.

Fuel for the KRCDD CPP will be natural gas supplied from a new approximately 26-mile long 20-inch underground pipeline interconnection to the Southern California Gas Company (SCG) Line 7000 near the City of Visalia, California. The gas pipeline closely follows existing road right of way corridors and will be located in public right of way. The gas pipeline will cross under and over two sensitive areas including the Kings River near the City of Kingsburg and Cross Creek north of the City of Traver. Five construction staging areas have also been identified for use during construction of the gas pipeline, each with an approximate size of 200 feet by 200 feet. These five areas are agricultural lands with no habitat for special-status species or habitats.

Electric transmission for the KRCDD CPP will be provided by a new interconnection from the plant site to the Pacific Gas and Electric Company (PG&E) McCall Substation located on the west side of Leonard Avenue and north of Manning Avenue. A new approximately five mile-long 230-kilovolt (kV) radial transmission line will connect the KRCDD CPP to McCall substation. The transmission line will cross both private property and the public right of way. Land use associated with the transmission line is agricultural and sparse residential. The transmission line will cross over and towers will be located in a water recharge basin known as the Manning Recharge Basin. The basin has sparse low quality wetland habitat.

The primary source of process makeup water for the KRCDD CPP will be recycled water delivered by new underground pipeline interconnections to the Parlier WWTP and the Sanger WWTP effluent percolation and evaporation ponds located on Lincoln Avenue (i.e., Lincoln



Ponds). The Parlier WWTP is located adjacent to the north of the plant site, and the interconnection will be located at the northern plant site boundary. The proposed interconnection to the Lincoln Ponds is approximately five miles north and will be located primarily along existing roadways. Currently two options are being considered for the water pipeline interconnection to Lincoln Ponds (i.e., Water Supply Pipeline Option 1 and Option 2). Both potential routes will be located primarily along roadways. These roadways are maintained and occur among agricultural land with no habitat for special-status species or habitats. Up to four new shallow wells recovering percolated effluent will provide a back-up cooling water supply.

Potable water for domestic use will be supplied by a new groundwater well to be installed on the project site. There is no offsite linear associated with the potable water supply. Domestic wastewater will be discharged to the Parlier WWTP. The sewer interconnection is located on the northern boundary of the project site with no offsite linear.

8.16.2.3 Special-Status Plant Species

Special-status plant species are species that have been afforded special protection by federal, state or local resource conservation agencies and organizations. These species are generally considered rare, threatened, or endangered due to declining or limited populations. Special-status plant species include:

- Plants that are legally protected or proposed for protection under the California Endangered Species Act (CESA), or Federal Endangered Species Act (FESA);
 - Plants defined as endangered or rare under the California Environmental Quality Act (CEQA) (Section 15380);
 - Plants designated as species of special concern by the United States Fish and Wildlife Service (USFWS) or the California Department of Fish and Game (CDFG); and
 - Plants listed in the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California.
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- A variety of special-status plant species are reported from the general region of the proposed KRCDD CPP and linear facilities. These species include special-status plant species reported in the California Natural Diversity Database (CNDDDB) search of the United States Geological Survey (USGS) 7.5 minute topographic maps, which include the power plant site and its associated linear facilities. A table displaying the 24 7.5 minute topographic maps covering the project area is included as Appendix 8.16-1.



Copies of the summary results from the CNDDDB search for the KRCDD CPP project area are included in Appendix 8.16-2.

8.16.2.4 Special-Status Wildlife Species

Special-status wildlife species are species that have been afforded special protection by federal, state or local resource conservation agencies and organizations. These species are generally considered rare, threatened, or endangered due to declining or limited populations. Special-status species include:

- Animals that are legally protected or proposed for protection under the CESA, or FESA;
- Animals defined as endangered or rare under the CEQA (Section 15380);
- Animals designated as species of special concern by the USFWS or CDFG; and
- Animals listed as “fully protected” in the Fish and Game Code of California (Sections 3511, 4700, 5050, and 5515).

A variety of special-status wildlife species are reported from the general region of the proposed KRCDD CPP and linear facilities. These species include special-status wildlife species reported in the CNDDDB search of the USGS 7.5 minute topographic maps, which includes the power plant site and its associated linear facilities. A table displaying the 24 7.5 minute topographic maps covering the project area is included as Appendix 8.16-1. Copies of the summary results from the CNDDDB search for the KRCDD CPP project area are included in Appendix 8.16-2.

8.16.3 ENVIRONMENTAL CONSEQUENCES

8.16.3.1 Significance Criteria

Potential and expected direct and indirect impacts to biological resources are discussed below. Significant impacts are those that would involve the loss of a sensitive plant or wildlife species, or degradation of their habitat. The project would have significant impacts to vegetation, habitat, and wildlife if it would:

- Cause a fish or wildlife population to drop below self-sustaining levels (CEQA Guidelines, Section 15065 (a));
- Threaten to eliminate a plant or animal community (CEQA Guidelines, Section 15065 (a));
- Substantially affect, reduce the number, or restrict the range of unique, rare, or endangered species of animal or plant, or the habitat of the species (CEQA Guidelines, Section 15065 (a), Appendix G (c), Appendix I (II.4.b) and (II.5.b));



- Substantially diminish or reduce habitat for fish, wildlife, or plants (CEQA Guidelines, Section 15065 (a), Appendix G (t));
- Interfere substantially with the movement of resident or migratory fish or wildlife species (CEQA Guidelines, Appendix G (d));
- Change the diversity of species, or number of any species of plants (including trees, shrubs, grass crops, and aquatic plants) or animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, or insects) (CEQA Guidelines, Appendix I (II.4.1) and (II.5.a));
- Introduce new species of plants or animals into an area, or act as a barrier to the normal replenishment of existing species (CEQA Guidelines, Appendix I (II.4.c) and (II.5.c));
- Deteriorate existing fish or wildlife habitat (CEQA Guidelines, Appendix I (II.5.d)); and
- Conflict with any regional Habitat Conservation Plans (HCPs).

The above criteria are used to evaluate the proposed KRCDD CPP impacts to plant communities and wildlife. The potential impacts associated with the construction and operation of the KRCDD CPP are discussed in following sections. Potential impacts to sensitive habitats (such as waters, wetlands, and riparian) and their significance criteria are presented in Appendix 8.16-3, Wetland and Waters Evaluation. Appendix 8.16-3 also includes topographic maps which show waters in the project area.

8.16.3.2 Impact Assessment Methodology

Information pertaining to threatened, endangered, special-status species, or sensitive habitats that may occur in the KRCDD CPP project area was collected from several sources including:

- CNDDDB;
- CNPS Database;
- Technical publications and books;
- Relevant Environmental Impact Reports (EIRs);
- Literature queries via the Internet;
- USFWS, Threatened and Endangered Species System;
- USFWS, Species List for Fresno and Tulare Counties;
- USFWS, Species Lists for Quadrangle Maps;
- USFWS, National Wetland Inventory;
- USFWS, Critical Habitat System;



- Special Plants List (CDFG, 2007);
- Special Animals List (CDFG, 2006);
- Fresno (2000) and Tulare (2006) County General Plans; and
- Sensitive Element Inventory (KRCDD, 1992).

A search of the National Wetlands Inventory was conducted and it showed wetlands and waters in the Kings River and Cross Creek areas. A search of the Critical Habitat System was conducted and it showed critical habitat in the Cross Creek area for vernal pools, California tiger salamander, vernal pool fairy shrimp, and vernal pool tadpole shrimp (see Appendix 8.16-4). Critical habitat for Hoover's spurge, San Joaquin Valley orcutt grass, Keck's checker-mallow, and succulent owl's-clover also occur in the project area.

A search of the CNDDDB (was conducted to review records of special-status species and habitats in the general region of the proposed KRCDD CPP. The CNDDDB summary results are included as Appendix 8.16-2. A search of the CNPS Database was also conducted. Results of the CNPS query did not turn up any records that were not already included in the CNDDDB results. The results of the CNDDDB search indicated several special-status species and habitats have the potential to occur in the area of the proposed KRCDD CPP and linear facilities. The potential species include:

Mammals:	San Joaquin kit fox, hoary bat, pallid bat, western mastiff bat, San Joaquin pocket mouse, American badger;
Birds:	Swainson's hawk, burrowing owl, western yellow-billed cuckoo, tricolored blackbird;
Reptiles:	Western pond turtle, blunt-nosed leopard lizard;
Amphibians:	California tiger salamander, western spadefoot;
Arthropods:	Antioch efferian robberfly, Hurd's metapogon robberfly, molestan blister beetle, valley elderberry longhorn beetle, andrenid bee, Hopping's blister beetle, Moody's gnaphosid spider, California linderiella, vernal pool fairy shrimp, vernal pool tadpole shrimp, Piedra harvestman;
Plants:	California jewel-flower, Earlimart orache, San Joaquin Valley orcutt grass, San Joaquin adobe sunburst, brittlescale, caper-fruited tropidocarpum, lesser saltscare, heartscare, subtle orache, Hoover's spurge, spiny-sepaled button-celery, Panoche pepper-grass, succulent owl's-clover, Sanford's arrowhead, Greene's tuctoria, California satintail, recurved larkspur, Keck's checkerbloom;



Habitats: Great Valley Mixed Riparian Forest, Northern Claypan Vernal Pool, Valley Sacaton Grassland, and Northern Hardpan Vernal Pool.

Also, a species list from the USFWS for Fresno and Tulare Counties and including the applicable USGS 7.5 minute topographic maps were also consulted, and is included as Appendix 8.16-5. Additional species and habitats from that search include:

Mammals: Tipton kangaroo rat, Fresno kangaroo rat
Birds: Bald eagle
Fish: Delta smelt
Reptiles: Giant garter snake
Amphibians: California red-legged frog
Arthropods: Conservancy fairy shrimp
Critical Habitats: Vernal pool, vernal pool fairy shrimp, vernal pool tadpole shrimp, California tiger salamander, Hoover's spurge, Succulent owl's-clover, San Joaquin Valley orcutt grass, and Keck's checker-mallow.

Lists of special-status species, other sensitive species, and sensitive habitats with the potential to occur in the KRCDD CPP project area were developed and were used to focus field surveys. Special-status species and habitats noted by the USFWS (Appendix 8.16-5) were also reviewed, searched for, and considered in the field surveys. Other sensitive species known to occur in the general region of the project site were also reviewed, searched for, and considered in the field surveys. A list of the special status plant species with the potential to occur in the project area is included as Appendix 8.16-6. A list of the special status wildlife species with the potential to occur in the project area is included as Appendix 8.16-7. For each of these sensitive plant and wildlife species, their legal status, habitat association, and determination of affects by the project are also listed.

8.16.3.3 Field Survey Methods and Results

In December 2006 and January 2007, KRCDD sent letters to all private landowners in the field survey area for the KRCDD CPP, including the project site, construction staging area, natural gas pipeline and associated staging areas, water pipelines (Option 1 and Option 2) and the electric transmission line to request written permission for property access to complete environmental surveys. In addition, KRCDD went door-to-door in an attempt to gain permission from landowners for completion of surveys. KRCDD was unable to gain permission from all landowners so only parcels where permission was obtained were accessed for onsite pedestrian field surveys. Parcels that were unable to be directly accessed were either viewed from adjacent or nearby parcels where access had been obtained or were viewed from the public right-of-way.



Biological reconnaissance surveys were conducted on July 18, August 2, and December 21, 2006, and February 6, May 12, 15, 17, and May 18, 2007 to determine if special-status species, other sensitive species, sensitive habitats or other environmental issues could occur within the project area. Field surveys were conducted by biologists Mr. Tracy Purpuro and by Halstead and Associates, Environmental/Biological Consultants. Copies of resumes for the biologists are included in Appendix 8.16-8.

During the reconnaissance surveys, areas were searched for any evidence of suitable habitat for sensitive species, species occurrence such as burrows, tracks, trails, prey remains, diggings, scat (feces), nests, sensitive plants, elderberry bushes, and sensitive habitats such as creeks, streams, and wetlands including vernal pools and swales. Biological condition descriptions include vegetation and habitat types, local wildlife and plant species, and special-status species that occur in the general project area were also noted. Results of the field surveys are discussed below.

Project Site and Construction Staging Area

A list of the special-status species with the potential to occur in the area of the project site and construction staging area is included in Appendix 8.16-2. Also, other sensitive species known to occur in the general region of the project site were reviewed, searched for, and considered in the field surveys. These species are listed in Appendices 8.16-5, 8.16-6, and 8.16-7.

The KRCDD CPP area, including the project site and construction staging area, has been previously leveled, converted to agriculture, and is an actively farmed vineyard. The area possesses a few non-native weedy grasses and forbes which have grown between rows of actively cultivated grape vines. No habitat exists for special-status species and none were observed, thus none occur on the KRCDD CCP project site or staging area. No sensitive habitats (such as wetlands, vernal pools, streams, creeks) were identified during field surveys, and none occur on the KRCDD CCP project site or construction staging area. Soils in the area are sandy and no evidence of vernal pool wetlands (depressions or swales, hydrology, or vegetation) occur on the project site or staging area. Lands surrounding the project site are agricultural, sparse residential, a WWTP, and a closed landfill which provide no habitat for special-status species or sensitive habitats.

Plants observed during field surveys of the project site and construction staging area included vineyards of grapes (*Vitis* sp.), Johnson grass (*Sorghum halapense*), puncture vine (*Tribulus terrestris*), ripgut brome (*Bromus rigidus*), prickly lettuce (*Lactuca serriola*), black mustard (*Brassica nigra*), filaree (*Erodium* sp.), fiddleneck (*Amsinkia intermedia*), fox-tail barley (*Hordeum* sp.), common mallow (*Malva neglecta*), and milk thistle (*Silybum marianum*).



Animals observed during field surveys include western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis melanoleucus*) and Audubon's cottontail (*Sylvilagus audubonii*). Bird species identified were mourning dove (*Zenaida macroura*), Brewer's blackbird (*Euphagus cyanocephalus*), white-crowned sparrow (*Zonotrichia leucophrys*), house finch (*Carpodacus mexicanus*), American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), and European starling (*Sturnus vulgaris*). No burrowing mammals or their evidence were observed. This may be due to the frequent disking to control weeds. Also, no wildlife trails were observed due to recent plowing.

Natural Gas Pipeline

A list of the special-status species with the potential to occur in the area of the natural gas pipeline route is included in Appendix 8.16-2. Also, other sensitive species known to occur in the general region of the project site were reviewed, searched for, and considered in the field surveys. These species are listed in Appendices 8.16-5, 8.16-6, and 8.16-7. Queries of the CNDDDB produced polygons for special-status plants, animals and sensitive habitats in Tulare and Fresno counties adjacent to or near the pipeline route (see Figure 8.16-2). Habitat for the San Joaquin kit fox, northern claypan vernal pools, California tiger salamander, vernal pool fairy shrimp, vernal pool tadpole shrimp, burrowing owl, Swainson's Hawk, heartscale, lesser saltscale, and subtle orache exist adjacent to or near the gas pipeline route.

The USFWS has designated native lands in the Cross Creek area as Critical Habitat for vernal pools (unit M-14), California tiger salamander (unit 5), vernal pool tadpole shrimp (unit 18A), and vernal pool fairy shrimp (unit 26A) (see Appendix 8.16-4 and Figure 8.16-2). The pipeline route crosses through the critical habitat zone along a roadway that lies adjacent to Highway 99. Critical habitat for the Hoover's spurge, San Joaquin Valley orcutt grass, Keck's checker-mallow, and succulent owl's-clover do not occur near the gas pipeline route or the other project sites and are not considered further.

The proposed natural gas pipeline will be primarily located in the shoulders of existing roads, just off the paved surface. Road shoulders along the route are graded and sprayed bare with herbicide as part of routine right-of-way maintenance and agricultural practices. The proposed natural gas pipeline construction lay down sites are planned at several locations along the route in existing agricultural equipment areas (Figure 8.16-2). These lay down sites are routinely sprayed with herbicide and are nearly void of vegetation. The gas pipeline route provides no habitat for special-status species or sensitive habitats except for two potentially sensitive areas at the Kings River near Kingsburg and Cross Creek north of the City of Traver.



Two stream crossings are planned for the gas pipeline at the Kings River near Kingsburg, and at Cross Creek near Traver (Figure 8.16-2). The section of pipeline crossing the Kings River will be constructed underneath the streambed using Horizontal Directional Drill (HDD) equipment. This process involves digging work pits on either side of the channel outside of the riparian zone, and drilling a tunnel under the channel to house the pipeline. One of the proposed construction staging areas is located at the HDD drill entry location (Figure 8.16-2). The HDD technique is being used for construction to avoid any impacts to the streambed, bank and associated riparian zones. Figure 5-3 in Chapter 5, Natural Gas Supply provides a conceptual layout of the HDD crossing of the Kings River. The second stream crossing will occur at Cross Creek (Figure 8.16-2). The pipeline will be constructed underneath the channels with Jack and Bore equipment. This process will avoid impacts to Cross Creek and its channels by pushing the pipe under the channels without disturbance to the bed, bank or riparian areas. A wetland and waters evaluation was conducted at the Kings River and Cross Creek crossing areas, as described below in Section 8.16.3.5 and is included as Appendix 8.16-3.

In summary, no special-status species such as Swainson's Hawk, Valley Elderberry Longhorn Beetle, or elderberry bushes were observed at the Kings River gas pipeline crossing area. Through the use of the noted construction techniques and incorporation of several avoidance mitigation measures, the Kings River, its riparian habitat, and any potential special-status species occurring there will not be impacted by the project. For the Cross Creek area, special-status species and sensitive habitats occur adjacent to the pipeline route. Through the use of the noted construction techniques and incorporation of several avoidance mitigation measures, Cross Creek's waters, wetland, vernal pool, and critical habitats, their associated sensitive species, and other potential special-status species occurring there will not be impacted by the project. The avoidance measures will protect and preserve sensitive biological and habitat resources. The avoidance measures are described in detail in Section 8.16.4.4. As stated in Section 8.16.4.4, surveys for nesting raptors and the Swainson's Hawk will be conducted for the gas pipeline route, project site and linears in 2008 to ensure they do not inhabit the site and will not be impacted by project activities. Also, protocol surveys for the burrowing owl and a preconstruction survey for the San Joaquin kit fox will be conducted along the gas pipeline route in the Cross Creek roadway because potential burrows were found in and adjacent to its banks. This will ensure that they do not inhabit the site and will not be impacted by project activities.

Plant species observed during field surveys of the natural gas pipeline route and lay down areas included agricultural species such as almonds, grapes, and alfalfa; puncture vine (*Tribulus terrestris*), filaree (*Erodium sp.*), black mustard (*Brassica nigra*), common mallow (*Malva neglecta*), fox-tail barley (*Hordeum sp.*), maretail (*Conyza canadensis*), common sunflower (*Helianthus annuus*), Johnson grass (*Sorghum halapense*), ripgut brome (*Bromus rigidus*),



prickley lettuce (*Lactuca serriola*), fiddleneck (*Amsinkia intermedia*), and milk thistle (*Silybum marianum*).

Wildlife species observed during field surveys included California ground squirrel (*Spermophilus beecheyi*), mourning dove (*Zenaidura macroura*), house sparrow (*Passer domesticus*), white-crowned sparrow (*Zonotrichia leucophrys*), Brewer's blackbird (*Euphagus cyanocephalus*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), house finch (*Carpodacus mexicanus*), black phoebe (*Sayornis nigricans*), rock dove (*Columba livia*), American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), red-winged blackbird (*Agelaius phoeniceus*), killdeer (*Charadrius vociferus*), California quail (*Callipepla californica*), spotted towhee (*Pipilo maculatus*), ruby-crowned kinglet (*Regulus calendula*), western meadowlark (*Sturnella neglecta*), northern mockingbird (*Mimus polyglottos*), scrub jay (*Aphelocoma insularis*), Say's phoebe (*Sayornis saya*), and red-shouldered hawk (*Buteo lineatus*). Burrows of the California ground squirrel were observed along and adjacent to the roadway in the Cross Creek area. Such burrows are potential habitat for species like the San Joaquin kit fox, burrowing owl, and California tiger salamander.

Transmission Line

A list of the special-status species and sensitive habitats with the potential to occur in the area of the transmission line route is included in Appendix 8.16-2. Also, other sensitive species known to occur in the general region of the project site were reviewed, searched for, and considered in the field surveys. These species are listed in Appendices 8.16-5, 8.16-6, and 8.16-7.

Land use along the proposed transmission line route is mainly farmland with sparse residential areas. The land along most of the proposed transmission line route is non-native, and has been previously converted to agricultural or residential use. No special-status species or sensitive habitats (except for the Manning Recharge Basin noted below) were observed or occur along the transmission line route. North of Manning Avenue between McCall and Indianola Avenues, the transmission line crosses a groundwater recharge basin known as the Manning Recharge Basin (Figure 8.16-2). Plans for the construction of the transmission line call for the placement of transmission poles within this basin. A wetland and waters evaluation was conducted at the Manning Avenue groundwater recharge basin, as described below in Section 8.16.3.5 and is also included as Appendix 8.16-3. In summary, the recharge basin has sparse, low quality wetland habitat. Through the incorporation of several mitigation measures, the wetland habitat and any potential special-status species occurring in the basin will not be significantly impacted. The proposed avoidance measures will protect and preserve sensitive biological and habitat resources. The proposed measures are described in detail in Section 8.16.4.4.



KRCDD biologists conducted nesting raptor surveys in 2007 along existing transmission lines that parallel the proposed KRCDD CPP transmission line route. No raptor nests have been observed to date in nearby trees or towers. As stated in Section 8.16.4.4, surveys for nesting raptors and the Swainson's Hawk will be conducted at the KRCDD CPP and linears in 2008 to ensure they do not inhabit the site and will not be impacted by project activities. Also, protocol surveys for the burrowing owl and a preconstruction survey for the San Joaquin kit fox will be conducted for the Manning Recharge Basin because potential burrows were found in its banks. Surveys will ensure that the species do not inhabit the area and will not be impacted by project activities.

Wildlife species observed during field surveys included California ground squirrel (*Spermophilus beecheyi*), mourning dove (*Zenaida macroura*), house sparrow (*Passer domesticus*), white-crowned sparrow (*Zonotrichia leucophrys*), Brewer's blackbird (*Euphagus cyanocephalus*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), house finch (*Carpodacus mexicanus*), black phoebe (*Sayornis nigricans*), rock dove (*Columba livia*), American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), red-winged blackbird (*Agelaius phoeniceus*), killdeer (*Charadrius vociferus*), California quail (*Callipepla californica*), spotted towhee (*Pipilo maculatus*), ruby-crowned kinglet (*Regulus calendula*), western meadowlark (*Sturnella neglecta*), northern mockingbird (*Mimus polyglottos*), scrub jay (*Aphelocoma insularis*), Say's phoebe (*Sayornis saya*), red-shouldered hawk (*Buteo lineatus*), Northern oriole (*Icterus galbula*), barn swallow (*Hirundo rustica*), Western tanager (*Piranga ludoviciana*), tree swallow (*Tachycineta bicolor*), Western kingbird (*Tyrannus verticalis*), American goldfinch (*Carduelis tristis*), turkey vulture (*Cathartes aura*), and cliff swallow (*Petrochelidon pyrrhonota*). Burrows of the California ground squirrel were observed in the banks of the basin. Such burrows are potential habitat for species like the San Joaquin kit fox and burrowing owl.

Water Pipeline

A list of the special-status species and sensitive habitats with the potential to occur in the area of the water pipeline route is included in Appendix 8.16-2. Also, other sensitive species known to occur in the general region of the project site were reviewed, searched for, and considered in the field surveys. These species are listed in Appendices 8.16-5, 8.16-6, and 8.16-7.

The proposed water supply pipeline (Option 1 and Option 2) will be constructed along road shoulders running north from the project site. Road shoulders along the route are graded and sprayed with herbicide as part of routine right-of-way maintenance and agricultural practices. Plant species observed during site visits are consistent with the plant species observed on road shoulders along the gas pipeline route. The land along the proposed water pipeline route (Option 1 and Option 2) is non-native, and has been previously converted to agricultural or residential



uses. No native habitat for special-status species exists in these areas, no special-status species were observed, and none occur along the route. Also, no sensitive habitats (such as wetlands, vernal pools, streams, and creeks) occur along or will be impacted along the proposed water pipeline route.

Land use associated with both pipeline options is agriculture. Land use surrounding the Parlier WWTP is primarily agriculture. The Parlier WWTP property is cleared of vegetation and provides no habitat for special-status species. Lincoln Ponds are used to percolate treated wastewater into the soil, and are disked once the area has dried. There will be no impacts to special-status species. Also, no sensitive habitats (such as wetlands, vernal pools, streams, and creeks) will be impacted along the proposed water pipeline (Option 1 and Option 2).

Wildlife species observed during field surveys included California ground squirrel (*Spermophilus beecheyi*), mourning dove (*Zenaidura macroura*), house sparrow (*Passer domesticus*), white-crowned sparrow (*Zonotrichia leucophrys*), Brewer's blackbird (*Euphagus cyanocephalus*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), black phoebe (*Sayornis nigricans*), rock dove (*Columba livia*), American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), killdeer (*Charadrius vociferus*), ruby-crowned kinglet (*Regulus calendula*), northern mockingbird (*Mimus polyglottos*), scrub jay (*Aphelocoma insularis*), and red-shouldered hawk (*Buteo lineatus*).

Potable Water and Domestic Sewer Supply

There are no offsite linears associated with the potable water and domestic sewer supply. The discussion above of plants and animals for the KRCDD CPP project site and construction staging area also applies to the potable water and sewer connection. There will be no impacts to special-status species, other sensitive species, or sensitive habitats associated with these interconnections.

8.16.3.4 Agency Coordination

Preliminary and ongoing coordination is being conducted with the USFWS, United States Army Corps of Engineers (USACE), and CDFG. Specific agency contact information is provided later in this section in Table 8.16-2. As part of the agency coordination, an information packet on the KRCDD CPP was sent to the agencies. The packet of information included a description of the proposed KRCDD CPP, details of pipeline construction methods for the Cross Creek and Kings River crossings, and maps of project area locations relative to the CNDDDB polygons. Records of correspondence with applicable regulatory agencies are contained in Appendix 8.16-9.



8.16.3.5 Wetland and Waters Evaluation

Reconnaissance surveys were conducted in May 2007 to evaluate if wetlands and waters occur in the KRCDD CPP project area and have the potential to be impacted by the project. The reconnaissance surveys were also used to examine, evaluate, and determine if wetlands or waters occur on adjacent private lands and have the potential to be impacted by the project. Results of the reconnaissance survey identified three potential wetland and waters areas in the KRCDD CPP project area. These three areas include:

- Proposed natural gas pipeline crossings of the Kings River near the City of Kingsburg;
- Proposed natural gas pipeline crossing of Cross Creek and its channels near the City of Traver; and
- Proposed transmission line route crossing of the Manning Recharge Basin north of Manning Avenue between McCall and Indianola avenues.

No potential wetland or waters areas were identified on the KRCDD CPP project site, construction staging areas, or along the water pipeline route (Option 1 and Option 2).

The wetland and waters evaluation included an examination of topographic maps, aerial photographs, and computer searches which showed that the potential areas are waters, intermittent drainages, a river, wetland ponds, and vernal pool wetlands. A copy of the wetlands and waters evaluation, including aerial photographs and a discussion of all proposed mitigation measures is included in Appendix 8.16-3.

The project has been designed to avoid and/or lessen impacts to wetlands and waters. Examples of such actions include the locating and constructing of the gas pipeline and the water pipeline in the right-of-ways of existing roads. Also, the use of Jack and Bore and HDD techniques to install the gas pipeline underneath the Kings River and the intermittent drainages in the Cross Creek area avoids project impacts. With the implementation of the mitigation measures identified in Appendix 8.16-3 and discussed below in Section 8.16.4.4, potential impacts to wetlands and waters in and adjacent to the Cross Creek area and at the Kings River will be avoided.

Approximately 0.003 acres of wetland habitat will be permanently impacted in the bed of the Manning Recharge Basin where two H-framed transmission line towers will be installed. Temporary impacts to approximately one acre of wetland habitat will also occur in the Manning Recharge Basin during construction and erection of the towers in the basin. With the implementation of mitigation measures identified in Appendix 8.16-3 and discussed below in Section 8.16.4.4, potential impacts to wetlands and waters in the Manning recharge basin will be



mitigated and less than significant. Overall, the project will not have a significant negative impact or effect on wetlands, waters, riparian habitat, or special-status species due to the implementation of the mitigation measures.

8.16.4 DISCUSSION OF IMPACTS

8.16.4.1 Site Preparation and Construction Impacts

The proposed KRCDD CPP project site and associated linear facilities are primarily located in areas that are currently used as agricultural lands or transportation rights-of-ways. Though the CNDDDB (Appendix 8.16-2), USFWS Species Lists (Appendix 8.16-5), and list of other potential sensitive species (Appendix 8.16-6 and 8.16-7) showed that a variety of special-status species and sensitive habitats occur in the general region of the project site and linear facilities, no sensitive species were observed during reconnaissance surveys of the project site, staging area or offsite linear facilities. There are three locations along KRCDD CPP linear facilities where construction activities could impact sensitive species, waters, and/or wetlands. These areas include the Manning Recharge Basin along the transmission line route, and the Kings River and Cross Creek sites along the natural gas pipeline route. Potential impacts to sensitive species and habitats for the proposed KRCDD CPP linear facilities are discussed below. No native fishes and wildlife species of commercial and/or recreational value occur on the project site or its linear facilities, and none will be impacted by the project.

Project Site and Staging Area

Prior to construction on the project site, the area will be cleared and graded. The existing vineyards will be removed. The 15-acre construction staging area will also be cleared of its vineyards and graded. The existing vineyards on the two properties possess a few non-native weedy grasses and forbes which have grown between rows of actively cultivated grape vines. In addition, the area underneath the vines is sprayed to control weeds. No habitat for special-status species or sensitive habitats (such as wetlands, vernal pools, streams, creeks) were identified on the project site and construction staging area. No special-status plant or wildlife species were observed during field surveys and none occur on or adjacent to the KRCDD CPP project site and construction staging area. Also, there is no evidence that the area is in a migration corridor for any special-status species. No significant impacts to biological resources will occur by construction of the KRCDD CPP. Since the project site and staging area are vineyards, no loss of or significant impacts to wildlife habitat or sensitive habitats will occur.

Water Pipeline

The proposed Water Pipeline route (Option 1 and Option 2) runs along roadways and does not provide habitat for special-status species or sensitive habitats. No special-status plant or wildlife species were observed during field surveys, and none occur on or adjacent to the pipeline route.



Also there is no evidence that the area is in a migration corridor for any special-status species. The pipeline will be primarily constructed in the road right-of-way off the paved area. No significant impacts to biological resources will occur by construction of the proposed water pipeline (Option 1 and Option 2).

Transmission Line

Most of the transmission line route (except as noted below) is actively farmed agricultural land or residential land. No special-status species were observed during field surveys, and none occur on or adjacent to the transmission line route. Also there is no evidence that the area is in a migration corridor for any special-status species. No significant impacts to biological resources will occur by construction of the proposed transmission line and no significant loss of or significant impacts to wildlife habitat or sensitive habitats will occur. Minor impacts to wetland habitat as noted below will be fully mitigated.

A review of USGS quadrangle maps revealed a small water feature along the proposed transmission line route north of Manning Avenue between McCall and Indianola avenues. After visiting the site, project biologists determined that this feature functions as a groundwater recharge basin, is known as the Manning Recharge Basin, and contains sparse, low quality wetland habitat. A qualified biological consultant was hired to conduct a wetland and waters evaluation. The results of the evaluation showed that approximately 0.003 acres of wetland habitat will be permanently impacted in the bed of the Manning Recharge Basin where two H-framed transmission line towers will be installed. Temporary impacts to approximately one acre of wetland habitat will also occur in the Manning Recharge Basin during construction and erection of the towers in the basin. With the implementation of mitigation measures identified in Appendix 8.16-3 and Section 8.16.4.4, potential impacts to wetlands and waters in the Manning Recharge Basin will be mitigated and less than significant.

Burrows of the California ground squirrel occur along the banks of the recharge basin and they are potential habitat for the burrowing owl and San Joaquin kit fox. Protocol surveys for the burrowing owl and a preconstruction survey for the kit fox will be conducted to ensure that the species does not inhabit the site and are not impacted by project activities. With the implementation of mitigation measures identified in Section 8.16.4.4, potential impacts will be mitigated and less than significant. As stated in Section 8.16.4.4, surveys for nesting raptors and the Swainson's Hawk will be conducted at the KRCDD CPP project site and linears in 2008 to ensure they do not inhabit the project site and will not be impacted by project activities.



Natural Gas Pipeline

A review of USGS quadrangle maps, National Wetland Inventory, Critical Habitat System, and the CNDDDB produced records of special-status species and potential sensitive habitats in two locations: the Kings River near the City of Kingsburg and Cross Creek north of the City of Traver (Figures 8.16-1 and 8.16-2, and Appendix 8.16-4). In the Cross Creek area, adjacent native lands have sensitive resources such as vernal pools, vernal pool fairy shrimp, vernal pool tadpole shrimp, California tiger salamander, critical habitat for them, waters, wetlands, and potentially the burrowing owl and San Joaquin kit fox. The natural gas pipeline will occur along the roadway, not permanently convert land use along its route, not impact native, sensitive species, or critical habitat lands, and therefore, will not impact sensitive resources. No significant loss of or significant impacts to wildlife habitat will occur. Several mitigation measures are incorporated into the project to protect and preserve biological resources (Section 8.16.4.4 and Appendix 8.16-3). Through the use of construction techniques and the mitigation measures, potential impacts to sensitive resources will be mitigated and less than significant. The two crossings are discussed further below.

Kings River Crossing

The natural gas pipeline will be constructed underneath the Kings River south of the City of Kingsburg. The section of pipeline crossing the Kings River will be constructed underneath the streambed using the HDD technique. The construction technique used for the river crossing avoids disturbance of the stream bed, bank and channel by digging pits outside of the riparian corridor, and drilling under the river (Figure 8.16-2). The construction lay down areas and drilling pits are located on the shoulders of road right-of-ways, and on agricultural lands respectively. Additional information and the King River crossing is included in Appendix 8.16-3, Wetland and Waters Evaluation.

Impacts could occur to the Kings River, its waters, wetland, and riparian habitats, and special-status species by heavy equipment and vehicle use, trenching, erosion, contamination, and noise unless avoidance and mitigation measures are incorporated into the project. With the implementation of the mitigation measures identified in Appendix 8.16-3, and in Section 8.16.4.4, potential impacts to wetlands and waters along the Kings River will be avoided, mitigated, and less than significant. Construction of the natural gas pipeline will not significantly impact wetlands, waters, or biological resources in the area of the Kings River.

Cross Creek Crossing

The natural gas pipeline will be constructed underneath Cross Creek channels with Jack and Bore equipment. This technique avoids disturbance of the stream bed, bank and channel by pushing pipe through the substrate under the channel to a small receiving pit at the opposite end.



Additional information and the Cross Creek crossing is included in Appendix 8.16-3, Wetland and Waters Evaluation.

Impacts could occur to waters, wetlands, and special-status species in the Cross Creek area by heavy equipment and vehicle use, trenching, erosion, contamination, and noise unless avoidance and mitigation measures are incorporated into the project. With the implementation of the mitigation measures identified in Appendix 8.16-3, and in Section 8.16.4.4, potential impacts to wetlands and waters in the Cross Creek area will be avoided, mitigated, and less than significant. Construction of the natural gas pipeline will not significantly impact wetlands, waters, or biological resources in the Cross Creek area.

Critical Habitats and their Sensitive Species

A search of the CNDDDB and Critical Habitat System produced locality and critical habitat records for vernal pools, vernal pool fairy shrimp, vernal pool tadpole shrimp, and California tiger salamander in the vicinity of Cross Creek. Additional information on these resources is included in Appendix 8.16-3, Wetland and Waters Evaluation.

Impacts could occur to critical habitat and their sensitive species by heavy equipment and vehicle use, trenching, erosion, contamination, and noise unless avoidance and mitigation measures are incorporated into the project. With the implementation of the mitigation measures identified in Appendix 8.16-3 and Section 8.16.4.4, potential impacts to these resources and other sensitive species will be avoided, mitigated, and less than significant. Construction of the project and its linears will not significantly impact special-status species, other sensitive species, or sensitive habitats. No significant loss of or significant impacts to wildlife habitat will occur.

San Joaquin Kit Fox

The proposed natural gas pipeline route parallels Highway 99 for 5.25 miles before being routed along other transportation corridors, until it intersects an existing SCG natural gas pipeline south of Highway 198 and just west of the City of Visalia. A search of the CNDDDB indicated habitat for the San Joaquin kit fox, an animal listed as Federally endangered and State threatened, along the gas line route in northern Tulare County. No San Joaquin kit fox or their evidence were observed during field surveys and none are expected to occur along the route. The construction of the project and its linears will not permanently change land use, and will therefore not permanently impact kit fox habitat.

Burrows of the California ground squirrel occur in the banks of the roadway in the Cross Creek area and in the banks of the Manning Recharge Basin. The burrows are potential habitat for the kit fox. Impacts could occur to kit fox and its habitat by heavy equipment and vehicle use,



trenching, erosion, contamination, and noise unless avoidance and mitigation measures are incorporated into the project. A preconstruction survey for the kit fox will be conducted at both sites to ensure it does not inhabit the sites and will not be impacted by project activities. With the implementation of mitigation measures identified in Section 8.16.4.4, potential impacts to the San Joaquin kit fox will be avoided, mitigated and less than significant. Construction of the project and its linears will not significantly impact the kit fox or its habitat. No significant loss of or significant impacts to kit fox habitat will occur.

Burrowing Owl

The native grassland habitat in the vicinity of Cross Creek and the banks of the Manning Recharge Basin are habitat for California ground squirrels, and therefore, could attract burrowing owls. Burrowing owls are protected by the Migratory Bird Treaty Act and other laws too. At the state level, burrowing owls are listed as a Species of Concern in California. Burrowing owl surveys were conducted in these areas to determine if burrowing owls are using native grasslands along the Highway 99 frontage road in the vicinity of Cross Creek and at the Manning Recharge Basin. No burrowing owls were observed during field surveys in 2007 and none are expected at the two above locales.

Impacts could occur to burrowing owl and its habitat by heavy equipment and vehicle use, trenching, erosion, contamination, and noise unless avoidance and mitigation measures are incorporated into the project. To ensure no impacts occur to burrowing owls that may migrate to and inhabit these locales, protocol surveys for the burrowing owl will be conducted at Cross Creek and Manning Recharge Basin in 2008. With the implementation of mitigation measures identified in Section 8.16.4.4, potential impacts to burrowing owl will be mitigated and less than significant. Construction of the project and its linears will not significantly impact the burrowing owl or its habitat. No significant loss of or significant impacts to burrowing owl habitat will occur.

Swainson's Hawk

The native or semi-native lands in the Cross Creek area, Manning Recharge Basin, and Kings River are potential areas where Swainson's Hawk or other raptors could potentially nest. Also, large trees in the vicinity of the KRCD CCP project site and project linears are potential nesting sites for raptors and Swainson's Hawk. Swainson's Hawk are protected by the Migratory Bird Treaty Act and other laws too. At the state level, the Swainson's hawk is listed as Threatened. Nesting raptor surveys were conducted in 2007 at these areas to determine if raptors, including the Swainson's Hawk are nesting near the project site or linears. No raptor nests were observed during field surveys and none are expected in the KRCD CPP project area.



Impacts could occur to nesting raptors and Swainson's Hawk and their nesting habitat by heavy equipment and vehicle use, trenching, and noise unless avoidance and mitigation measures are incorporated into the project. To ensure no impacts occur to raptors and Swainson's Hawks that may inhabit these locales, protocol surveys will be conducted at the KRCDD CCP project site and linears in 2008. With the implementation of mitigation measures identified in Section 8.16.4.4, potential impacts to nesting raptors and Swainson's hawk will be avoided, mitigated, and less than significant. Construction of the project and its linears will not significantly impact nesting raptors or the Swainson's Hawk. No significant loss of or significant impacts to raptor or Swainson's Hawk nesting habitat will occur.

Impacts to Wildlife Corridors

Substantial wildlife movement through the KRCDD CPP project area is lacking and the project area is not considered a significant wildlife corridor. No significant impacts to wildlife movement are expected with the construction and operation of the proposed KRCDD CPP.

8.16.4.2 Operation and Maintenance Impacts

Potential impacts to biological resources as a result of the operation and maintenance of the proposed KRCDD CPP include noise, air emissions and collision/electrocution hazards. These potential impacts are described further below.

Noise

The proposed KRCDD CPP will produce some noise both during construction and operation, as described in Section 8.2, Noise. The proposed KRCDD CPP is located within a rural area near the cities of Selma and Parlier. Noise sensitive land uses in the vicinity of the KRCDD CPP project site are primarily residential and agricultural in nature. Operational noise from the KRCDD CPP will generate a greater level of noise than currently exists in the project area. Primary noise sources at the KRCDD CPP include the gas metering station, gas compressor station, transformers, combustion turbines, heat recovery steam generators and cooling towers. The KRCDD CPP will be designed to include appropriate mitigation measures so that the project is in compliance with the Fresno County Noise Ordinance. As discussed in Section 8.2, Noise, mitigation measures will likely include berm, walls, silencers, enclosures and sound attenuating treatments. There are no sensitive wildlife receptors present in the area near the KRCDD CPP project site, therefore, the potential impacts to wildlife associated with KRCDD CPP noise is considered to be less than significant.

Air Emissions

The operational sources of emissions associated with the proposed KRCDD CPP include two turbine generator units which will generate emissions from the combustion of natural gas. Impacts to wildlife in the area as a result of these emissions are less than significant because the



common wildlife that occurs in the vicinity of the project area is expected to adapt to these conditions. Modeled ground-level concentrations of criteria air pollutants, including fine particulate matter (PM₁₀ and PM_{2.5}), nitrogen oxides (NO_x), sulfur dioxide (SO₂), volatile organic compounds (VOCs), and carbon monoxide (CO) that will be emitted or form from emissions at the proposed project site are below levels that will cause violations of the ambient air quality standards or contribute significantly to existing violations (see Section 8.1, Air Quality). Significance levels for air emissions along with ambient air quality standards are set to protect human health and ecosystems. Since native vegetation is lacking within the area of and adjacent to the KRCDD CPP project site, no significant impacts to native vegetation associated with air emissions and subsequent ground deposition are anticipated. Additionally, modeling results demonstrate that the KRCDD CPP will not cause an incremental impact above the significance impact levels under the federal Prevention of Significant Deterioration (PSD) program. Overall, no significant impacts to visibility or deposition in Class I areas are predicted.

Electrocution Hazard

The proposed five mile transmission line for the KRCDD CPP will increase the potential of electrocution hazard for birds. Although the potential for electrocution exists if birds collide with transmission lines or if raptors perch on towers in such a manner as to complete an electrical contact (touching two or more live electrical conductors or a live conductor and a grounded surface), electrocution is unlikely to occur on these proposed transmission connector lines. The conductor distance between conductors or between conductors and the ground wire is such that it is unlikely a bird could complete a circuit and be electrocuted. The transmission lines to be constructed for the KRCDD CPP will follow recommendations of the Avian Power Line Interactive Committee (1996) and will have a minimum distance greater than the wingspan of any birds in the area. Electrocution is a hazard on small distribution lines where the lower voltages allow less separation between conductors. Therefore, no significant impacts will occur with regard to bird electrocutions at transmission line routes.

Collision Hazards

The proposed five mile transmission line interconnection also has the potential to create some collision hazard to bird species that may simply fly into the lines. The new steel pole structures will range from 90 to 125 feet in height. There are multiple other existing transmission and distribution lines located in the project area (see Figure 2-11 in Chapter 2, Project Description). The new transmission line route will not be located in an area with significant avian usage (such as nesting, forage, and loafing areas). Since the area has low quality habitat for birds, the collision hazards in the area of the KRCDD CPP will be low and will be less than significant.



The two 150 foot tall heat recovery steam generator stacks will also increase collision potential for avian species. Some migrating bird species that fly at night are guided in part by constellations and can become confused by brightly lit tall structures. Fog or low cloud cover can further add to collision potential, although fog does not occur with much frequency in the study area. The stacks will not be adjacent to significant aquatic or upland habitats that attract large numbers of migratory birds. Although the number of potential collisions cannot be quantified, since the area has low quality habitat for birds, collision will be low and will be less than significant.

8.16.4.3 Cumulative Impacts

Past and current development in the project area have the potential to result in cumulatively significant impacts on biological resources, including special-status species, their habitats, and sensitive habitats. Other projects that could potentially contribute to cumulative impacts are those within the same geographic area of influence. As discussed in Section 8.4, Land Use and Agriculture both the cities of Selma and Parlier are experiencing growth, primarily residential. These residential developments are generally over a mile from the KRCDD CPP project site and in various stages of planning and approvals. There are no planned developments in the immediate vicinity of the KRCDD CPP project sites. There are also no sensitive biological resources on the project site or on most of the surrounding areas, therefore, cumulative impacts to biological resources will not be significant. No native fishes and wildlife species of commercial and/or recreational value occur on the project site, its linear facilities, or in the surrounding areas and thus, no cumulative impacts will occur.

8.16.4.4 Mitigation, Avoidance and Minimization Measures

In order to avoid, minimize, lessen, and mitigate impacts to special-status species and sensitive habitats, the following measures are incorporated into the project and will be implemented to reduce project-related impacts to biological resources to less than significant levels. Through the implementation of the mitigation measures denoted below, no take of or significant impacts will occur to special-status species, sensitive species, or sensitive habitats, and project impacts to biological resources will be less than significant.

Waters and Wetlands

Three sensitive areas with waters and wetlands occur on the project site: Kings River near the City of Kingsburg, Cross Creek near the City of Traver, and the Manning Recharge Basin north of Manning Avenue between McCall and Indianola avenues. Minor impacts to sparse, low quality wetland habitat will occur with the construction of transmission towers at the Manning Recharge Basin. This will permanently impact approximately 0.003 acres of wetland habitat in the basin. Also, construction and erection of the towers will cause temporary impacts to



approximately one acre of wetland habitat in the basin. KRCDD is continuing coordination with the USACOE to determine if a Nationwide Permit #12 - Utility Line Activities is applicable and will be required for the KRCDD CPP. If required, applicable permits will be obtained as noted in Section 8.16.7. Several mitigation measures as denoted in Section 8.16.3.5 and Appendix 8.16-3 are incorporated into the project. The measures will avoid, lessen, and mitigate impacts to waters, wetlands, and their biological resources. Though the use of the measures, sensitive habitats and their biological resources will be preserved and protected. No significant loss of waters or wetlands will occur due to the project.

Critical Habitats and their Sensitive Species

Critical habitat for vernal pools and several special-status species occurs in the Cross Creek area (see Appendix 8.16-4). Mitigation measures as denoted in Appendix 8.16-3 are incorporated into the project to avoid impacts to critical habitats and their special-status species. Through the use of the measures, critical habitats and their biological resources will be preserved and protected. No loss of critical habitat, their sensitive species, or sensitive species habitat will occur due to the project.

San Joaquin Kit Fox

Potential habitat for the San Joaquin kit fox occurs on the project site in the Cross Creek area and at the Manning Recharge Basin. To protect and preserve the San Joaquin kit fox, a preconstruction survey will be conducted about 30 days prior to ground disturbing activities in the Cross Creek area roadway and at the Manning Recharge Basin. The survey protocol will follow the USFWS (1999) guidelines as denoted in Appendix 8.16-10. If kit fox are found, the USFWS will be consulted and their protective and mitigation measures as noted in Appendix 8.16-10 will be enacted. Also, Standard Recommendations #1-13 (Appendix 8.16-10) are incorporated into the project and will be implemented to avoid potential impacts to kit fox. As per Standard Recommendation #8, the representative is Mr. Jeffrey A. Halstead and he can be contacted at (559) 298-2334 or (559) 903-5703. No loss of kit fox or its habitat will occur due to the project.

Burrowing Owl

Potential habitat for the burrowing owl occurs on the project site in the Cross Creek area and at the Manning Recharge Basin. To protect and preserve the burrowing owl, protocol surveys will be conducted in winter 2007 and spring/summer 2008 in the Cross Creek area roadway and at the Manning Recharge Basin to ensure owls do not move into and inhabit the area. The survey protocol will follow the Burrowing Owl Consortium's guidelines as denoted in Appendix 8.16-11. If burrowing owl are found, the CDFG will be consulted and their protective and mitigation



measures as noted in Appendix 8.16-12, burrowing owl mitigation, will be enacted. No loss of burrowing owl or its habitat will occur due to the project.

Nesting Raptors and Swainson's Hawk

Potential habitat for nesting raptors and the Swainson's hawk occurs in large trees and electric towers adjacent to the KRCDD CCP project site and linears. To protect and preserve nesting raptors and the Swainson's hawk, protocol Swainson's hawk surveys will be conducted in spring and summer 2008 at the KRCDD CPP project site and linears to ensure raptors and Swainson's hawks do not move into or adjacent to the project area and nest. The survey protocol will follow the Swainson's Hawk Technical Advisory Technical Committee (2000) guidelines as denoted in Appendix 8.16-13. If nesting raptors or Swainson's hawk are found, the CDFG will be consulted and their protective measures will be enacted. Protective measures for Swainson's hawk are provided in Appendix 8.16-14. No loss of nesting raptors or Swainson's Hawk habitat will occur due to the project.

Nesting Birds and their Nests

Potential habitat for nesting birds and their nests occurs on the project site in the Cross Creek area and at the Manning Recharge Basin. To protect and preserve nesting birds and their nests, prior to ground-disturbing activities in the February thru August period, a preconstruction survey will be conducted by a qualified biologist for nesting birds and their nests. If any active nests are observed, the nests and nest trees/areas shall be designated as an Environmentally Sensitive Area and protected (while occupied) during the construction activities. The CDFG shall be consulted and avoidance measures, specific to each incident, shall be developed in cooperation with KRCDD.

8.16.5 LAWS, ORDINANCES, REGULATIONS AND STANDARDS

To ensure the long-term protection of the environment and natural resources, laws and regulations have been implemented through multiple environmental protection acts. The following LORS are applicable to the protection of biological resources. The proposed KRCDD CPP will be constructed and operated in accordance with applicable LORS. Implementation and regulation of these LORS has been delegated to several federal and state agencies as stated below. These LORS are also summarized below in Table 8.16-1.



Table 8.16-1 Biological Resources LORS KRCD CPP		
Regulation/Program	Description	Project Applicability and Section Reference
Federal		
Clean Water Act of 1977 Section 404 (33 Code of Federal Regulations (CFR) 328, et seq.	The USACOE has jurisdiction over wetlands waters of the United States under the Clean Water Act. Construction within jurisdictional waters requires issuance of either an Individual or a Nationwide Permit.	A wetland and waters evaluation has been completed for three qualifying areas near the KRCD CPP. A total of 0.003 acres of wetlands habitat will be permanently impacted associated with construction of the KRCD CPP transmission line. Also approximately one acre of wetland will be temporarily impacted during construction of the transmission line. KRCD will coordinate with USACOE on the need for Nationwide Permit #12 - Utility Line Activities. See Appendix 8.16-3 and Section 8.16.7.
Federal Endangered Species Act of 1973 (16 United States Code (USC) 1531, et seq., 50CFR17 et seq.	Administered by the USFWS and the National Marine Fisheries Service, the Endangered Species Act designates and protects federally listed threatened and endangered plants and animals in their critical habitats.	With the implementation of mitigation measures outlined in this section the KRCD CPP will not impact any federally listed plants, animals, or habitats and will need no approvals under FESA. To facilitate the consultation process regarding federal sensitive species and habitats under Section 7 of the FESA, a biological assessment report is being prepared and will be submitted to the USFWS in late October 2007. Formal consultation will be initiated by the United States Environmental Protection Agency under their Prevention of Significant Deterioration Permit Program Authority. See Section 8.16.4.4, Appendix 8.16-3 and Section 8.1, Air Quality



Table 8.16-1 Biological Resources LORS KRCD CPP		
Regulation/Program	Description	Project Applicability and Section Reference
Migratory Bird Treaty Act of 1918 Bald and Golden Eagle Protection Act	Administered by the USFWS and CDFG, the act prohibits non-permitted taking of migratory birds.	No migratory birds, bald or golden eagles have been identified in the KRCD CPP project area. See Section 8.16.3.
State		
Clean Water Act of 1977 – Section 401	Administered by the Regional Water Quality Control Board, the act requires an applicant to obtain a state water quality certification when a federal Section 404 permitting process is required.	A wetland and waters evaluation has been completed for three qualifying areas near the KRCD CPP. A total of 0.003 acres of wetlands habitat will be permanently impacted associated with construction of the KRCD CPP transmission line. Also approximately one acre of wetland will be temporarily impacted during construction of the transmission line. Compliance is demonstrated through Section 404 Nationwide Permit compliance if needed for the KRCD CPP. See Appendix 8.16-3 and Section 8.16.7.
California Endangered Species Act of 1984, Fish and Game Code Sections 2050 – 2098	Administered by CDFG, the CESA established a state policy to conserve, protect, restore and enhance any state listed threatened or endangered species and their habitat.	With the implementation of mitigation measures outlined in this section the KRCD CPP will not impact any state listed plants, animals, or habitats and will need no approvals under CESA. See Section 8.16.4.4 and Appendix 8.16-6.
Fish and Game Code Section 1600, Streambed Alteration Agreement	CDFG will reviews projects for impacts on waterways, including impacts to vegetation and wildlife from sediment, diversions, and other disturbances.	With the implementation of mitigation measures outlined in this section, the KRCD CPP will not impact any bed or bank areas and therefore does not need a Streambed Alteration Agreement. See Section 8.16.4.4.
California Fish and Game Code	Administered by CDFG these code sections prohibits the taking of listed	With the implementation of mitigation measures outlined in



Table 8.16-1 Biological Resources LORS KRCD CPP		
Regulation/Program	Description	Project Applicability and Section Reference
Section 3511: Fully Protected birds Section 4700: Fully Protected mammals Section 5050: Fully Protected reptiles and amphibians Section 5515: Fully Protected fish Section 3503: Bird Nests Section 3503.5 Raptor Nests Section 3513 Migratory Birds	plants and animals that are Fully Protected in California.	this section, the KRCD CPP will not impact any state listed threatened and endangered plants and animals. See Section 8.16.4.4.
Native Plant Protection Act of 1977, Fish and Game Code, §1900 et seq.	Designates state rare and endangered plants and provides specific protection measures for identified populations.	With the implementation of mitigation measures outlined in this section, the KRCD CPP will not impact any state listed threatened and endangered plants. See Section 8.16.4.4.
CEQA Guidelines Section 15065 CDFG Code Sections 12900-1913.	Addresses project impacts on California species of special concern and species included on CNPS lists.	With the implementation of mitigation measures outlined in this section, the KRCD CPP will not impact any state listed threatened and endangered plants. See Section 8.16.4.4.
Title 14, California Code of Regulations (CCR) Sections 670.2 and 670.5.	Administered by CDFG, the code sections lists plants and animals of California declared to be threatened or endangered.	With the implementation of mitigation measures outlined in this section, the KRCD CPP will not impact any state listed threatened and endangered plants and animals. See Section 8.16.4.4.
Local		
Fresno (2000) and Tulare County (2006) General Plan	The county general plans contain important wetland, riverine and wildlife habitats. These areas support	The KRCD CPP will comply with all county general plan requirements.



Table 8.16-1 Biological Resources LORS KRCD CPP		
Regulation/Program	Description	Project Applicability and Section Reference
Open space Element Conservation Element	many specialized plant and animal species. Policies in the Fresno and Tulare Counties General Plans seek to protect natural areas and to preserve the diversity of habitat in the two counties.	See Section 8.16.5.3

8.16.5.1 Federal

Wetlands and Other Waters of the United States

Waters of the United States, including wetlands and creek channels, are subject to federal and state agency regulations. The USACE has jurisdiction over waters of the United States under Section 404 of the Clean Water Act. Waters of the United States may include interstate lakes, rivers, streams, mudflats, natural ponds, tributaries to Waters of the United States, and adjacent wetlands. Wetlands under USACE jurisdiction are determined using technical criteria for hydrology, soil, and vegetation described in the Corps Wetland Delineation Manual (1987). Areas not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water filled depressions (Code of Federal Regulations (CFR) 33, Part 328). Permits can be in the form of a Nationwide or Individual Permit.

Construction of transmission towers will permanently impact approximately 0.003 acres of wetland habitat in the Manning recharge basin. Also, construction and erection of the towers will cause temporary impacts to approximately one acre of wetland habitat in the basin. KRCD is continuing coordination with the USACOE to determine if a Nationwide Permit #12 - Utility Line Activities will be required for the KRCD CPP.

Federal Endangered Species Act

The Federal Endangered Species Act of 1973 (FESA) recognized that many species of fish, wildlife, and plants are in danger of, or threatened with, extinction, and established a national policy that all federal agencies should work toward conservation of these species. The Secretary of the Interior and the Secretary of Commerce are designated in the FESA as responsible for identifying endangered and threatened species and their critical habitats, carrying out programs for the conservation of these species, and rendering opinions regarding the impact of proposed federal action on endangered species, and specifying civil and criminal penalties for unlawful activities.

Biological assessments are required under Section 7(c) of the FESA if listed species or critical habitat may be present in the area affected by any major construction activity conducted by, or subject to issuance of a permit from, a federal agency as defined in Part 404.02. Section 10 allows for the “incidental take” of endangered and threatened species of wildlife by non-federal entities. Incidental take is defined by the FESA as take that is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” Section 10(a)(2)(A) requires an applicant for an incidental take permit to submit a “conservation plan” that specifies, among other things, the impacts that are likely to result from the taking, and the measures the permit applicant will undertake to minimize and mitigate such impacts. Section 10(a)(2)(B) provides statutory criteria that must be satisfied before an incidental take permit can be issued.

The KRCDD CPP will not impact any federally-listed threatened or endangered plants or animals or their designated critical habitats and will not violate the FESA. To facilitate the consultation process regarding federal sensitive species and habitats under Section 7 of the FESA, a biological assessment report is being prepared and will be submitted for review by applicable federal agencies in late October 2007.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (16 USC 703-711) makes it unlawful to take possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21).

The KRCDD CPP will not result in the deaths of birds or the destruction of any active nests, and therefore will not violate the Migratory Bird Treaty Act. As noted above, a biological assessment report is being prepared for consultation under Section 7 of the FESA.

Bald and Golden Eagle Protection Act

Specifically protects Bald and Golden Eagle from harm or trade.

The KRCDD CPP will not result in the deaths of Bald or Golden Eagles or the destruction of any active nests, and therefore will not violate the Bald and Golden Eagle Protection Act. As noted above, a biological assessment report is being prepared for consultation under Section 7 of the FESA.



8.16.5.2 State

Section 401 of the Clean Water Act

Compliance with the Clean Water Act Section 404 would be required for potential impacts to wetlands or “Waters of the United States”. The lead regulatory agency responsible for compliance with the Clean Water Act is the USACE. The USACE issued permit also has a corresponding state water quality certification that is obtained from the Central Valley Regional Water Quality Control Board (RWQCB).

Compliance with Clean Water Act Section 401 is demonstrated through Section 404 Nationwide Permit compliance if needed for the KRCDD CPP.

California Endangered Species Act

The California Endangered Species Act (CESA) (Fish and Game Code Sections 2050-2098) established a state policy to conserve protect, restore, and enhance any endangered species or any threatened species and its habitat. The Fish and Game Commission is charged with establishing a list of endangered and threatened species. State agencies must consult with the CDFG to determine if a proposed project is likely to jeopardize the continued existence of any endangered or threatened species.

The KRCDD CPP will not impact any federally-listed threatened or endangered plants or animals or their designated critical habitats and will not violate the CESA.

CDFG Streambed Alteration Agreement

Any project-related activity with the potential to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake designated by the CDFG, or use material from the streambeds requires that prior notification be provided to the CDFG and may require issuance of a Streambed Alteration Agreement pursuant to Sections 1600-1607 of the fish and Game Code.

The KRCDD CPP will not impact any bed or bank areas and therefore does not need a Streambed Alteration Agreement.

California Fish and Game Code

Section 3511: Fully Protected Birds, Section 4700: Fully Protected Mammals, Section 5050: Fully Protected Reptiles and Amphibians and Section 5515: Fully Protected Fishes

These Fish and Game Code sections prohibits the taking of listed plants and animals that are Fully Protected Species in California.



The KRCDD CPP will not impact any state listed threatened and endangered plants and animals and therefore will not violate applicable Fish and Game Code sections.

Section 3503: It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.

Section 3503.5: Protects all birds-of-prey and their eggs and nests.

Section 3513: Makes it unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act.

The KRCDD CPP will not impact nesting birds or their eggs or nests and therefore will not violate the Fish and Game Code.

Section 1900: Native Plant Protection Policy

The goals of the California Native Plant Protection Policy are to preserve, protect, and enhance endangered or rare plants of this state. A “native plant” means a plant that grows in a wild uncultivated state that is normally found native to the plant life of this state (Section 1901). The Fish and Game Commission may adopt regulation governing the taking, possession, propagation, transportation, exportation, importation, or sale of any endangered or rare native plants. Such regulation may include, but shall not be limited to, requirements for persons who perform any of the foregoing activities to maintain written records and to obtain permits, (Section 1907).

The KRCDD CPP will not impact any state listed threatened and endangered plants and therefore will not violate California Native Plant Protection Policy.

Other Special-Status Species Classifications

Impacts on California species of special concern (CSC) and species included on CNPS lists shall be considered significant if one of the following would result: a) direct mortality; b) permanent loss of existing habitat; c) temporary loss of habitat that may result in increased mortality or lowered reproductive success; or d) avoidance of biologically important habitat for substantial periods that could increase mortality or cause lowered reproductive success (Section 15065, CEQA Guidelines and CDFG Code Sections 12900-1913).

The KRCDD CPP will not impact any CSC and therefore will not violate CEQA and Fish and Game Code sections.

Title 14, California Code of Regulations, Sections 670.2 and 670.5

Lists animals designated as threatened or endangered in California. CSC is a category designated by CDFG for species considered to be indicators of regional habitat changes, or



candidate species for future state listing. CSC do not have special legal status, but are used by CDFG as a management tool when considering the future use of any land parcel.

The KRCD CPP will not impact any CSC and therefore will not violate Title 14 sections.

8.16.5.3 Local

Fresno (2000) and Tulare County (2006) General Plan

Fresno and Tulare Counties contain important wetland, riverine and wildlife habitats. These areas support many specialized plant and animal species. Policies in the Fresno and Tulare Counties General Plans seek to protect natural areas and to preserve the diversity of habitat in the two counties. Open space and conservation elements of the plans contain policies that pertain to the preservation and protection of biological resources.

The KRCD CPP will not impact the above biological resources and therefore will not violate the county plans.

8.16.6 INVOLVED AGENCIES AND CONTACTS

Agencies with jurisdiction and corresponding points of contact to issue applicable permits related to biological resources and impacts are listed in Table 8.16-2.

Table 8.16- 2 Biological Resources Agency Contacts KRCD CPP		
Agency	Contact Person, Title and Email	Phone Number
US Fish and Wildlife Service 2800 Cottage Way, W-2605 Sacramento, CA 95825-1846	Jeffrey Jorgensen, Senior Biologist San Joaquin Valley Branch, Endangered Species Program Jeffrey_Jorgensen@fws.gov	(916) 414-6600
US Fish and Wildlife Service 2800 Cottage Way, W-2605 Sacramento, CA 95825-1846	Mary Hammer Endangered Species Program Mary_Hammer@fws.gov	(916) 414-6600
California Department of Fish and Game 1234 East Shaw Avenue Fresno, CA 93710	Justin Sloan, Environmental Scientist, San Joaquin Valley and Southern Sierra Region jsloan@dfg.ca.gov	(559) 243-4014
US Army Corps of Engineers 1325 J Street – Room 144 Sacramento, CA 95814	Ramon Aberasturi Project Manager, San Joaquin Valley Office Ramon.Aberasturi@usace.army.mil	(916) 557-6865
Central Valley Regional Water Quality Control Board 1685 E Street Fresno, CA 93706	Douglas Patteson, P.E. Senior Water Resource Control Engineer dpatterson@waterboards.ca.gov	(559) 445-5156



8.16.7 PERMITS

The proposed KRCD CPP may require permits and authorizations from agencies whose responsibility it is to protect biological resources. Permits that will likely be required by the proposed KRCD CPP are discussed below in Table 8.16-3. Upon further informal consultation with these agencies, applicable permits will be prepared, submitted, and obtained as-soon-as possible.

<p align="center">Table 8.16-3 Biological Resources Permit Schedule KRCD CPP</p>		
Permit or Approval	Permit Applicability	Schedule
Clean Water Act Section 404 USACE Nationwide Permit #12 – Utility Line Activity	Required for the permanent loss of 0.003 acres of wetlands associated with the proposed transmission line and temporary loss of one-acre of wetlands associated with construction of the proposed transmission line.	KRCD will consult and coordinate with USACE on the requirements of this permit.
Clean Water Act Section 401 Central Valley RWQCB Water Quality Certification	A state water quality certification when a federal Section 404 permitting process is required.	KRCD will consult and coordinate with Central Valley RWQCB to determine the applicability of this permit.

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