

4. ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

4.1 Introduction

This Initial Study/Mitigated Negative Declaration (IS/MND) includes analysis of the 16 environmental issue areas and mandatory findings of significance listed below by section number. These issue areas incorporate the topics presented in CEQA's Environmental Checklist (see Appendix A).

4.2	Aesthetics	4.11	Mineral Resources
4.3	Agricultural Resources	4.12	Noise
4.4	Air Quality	4.13	Population and Housing
4.5	Biological Resources	4.14	Public Services
4.6	Cultural Resources	4.15	Recreation
4.7	Geology and Soils	4.16	Transportation and Traffic
4.8	Hazards and Hazardous Materials	4.17	Utilities and Service Systems
4.9	Hydrology and Water Quality	4.18	Mandatory Findings of Significance
4.10	Land Use		

The existing conditions, environmental impacts, and recommended mitigation measures associated with the checklist findings are provided for each issue area. The descriptions of the existing setting were obtained directly from Williams' Proponent's Environmental Assessment (PEA) (EIP, 2002), after verification that they were complete and accurate.

4.2 Aesthetics

4.2.1 Setting

Construction of the proposed project will be primarily in a rural agricultural part of the Sacramento Valley near Marysville. Parts of the Avondale segment are tree-lined or bordered by the UPRR berm, which separates them visually from the surrounding area. The landscape around the Ostrom segment to Beale Air Force Base is flat and provides open and unobstructed scenic views of the extensive farmlands for many miles in every direction. The short connector of the Qwest and Williams lines in the Biggs segment is located within this rural community between a light industrial and residential area.

The proposed new conduit and cable will be installed underground, with access provided through manholes along the route.

4.2.2 Environmental Impacts and Mitigation Measures

a. Would the project have a substantial adverse effect on a scenic vista?

LESS THAN SIGNIFICANT IMPACT. During construction, the temporary presence of construction equipment and work crews, and the piling of excavated material would temporarily disturb the open scenic character along Ostrom Road. As stated in the Project Description, small amounts of earth will be moved, trenches will be backfilled, and excess earth materials will be hauled away on the day of excavation. The restoration of excavated ground will be to at least as good as its original condition, no later than the next day. Therefore, construction impacts on scenic vistas along the cable route would be less than significant.

Once construction is completed, the only element of the project visible from the adjacent road would be the cable markers. These markers, similar to other utility markers, are approximately 3.5 inches in diameter and three feet high. They would be painted white and have orange caps. They would not be visually obtrusive, nor block any vistas along the public roads. Therefore, project operational impacts on scenic vistas along the cable route would be less than significant.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

NO IMPACT. The project would not be located along, nor cross, scenic highways.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

LESS THAN SIGNIFICANT IMPACT. As noted in “a” above, the temporary construction impacts and operation impact would not significantly degrade the visual character or quality of the project sites and their surroundings. Therefore, the impact would be less than significant.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

LESS THAN SIGNIFICANT IMPACT. As described in Section 3, no permanent lighting would be required as a result of this project, and all construction will be limited to daylight hours. Therefore, the impact would be less than significant.

4.3 Agricultural Resources

4.3.1 Setting

The Ostrom segment would be aligned along the UPRR railroad ROW, Ostrom Road, and South Beale Road, adjacent to actively cultivated agricultural land. There is a drainage ditch separating the conduit alignment, which would be within the shoulder of the paved roadway, from the adjacent agricultural uses.

In the Avondale segment, an orchard is located on the west side of Avondale Avenue, on the opposite side of the road from the cable location. There are no agricultural resources along the short Biggs segment.

4.3.2 Environmental Impacts and Mitigation Measures

- a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as Shown on the Maps Prepared Pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to Non-agricultural use?*

NO IMPACT. According to the California Department of Conservation Important Farmland Map (2000), lands adjacent to the proposed project are classified as Unique Farmland, Grazing Land, and Other Land. Construction and placement of fiber optic cables within county road and railroad ROW would not result in the conversion of farmland to non-agricultural uses.

On the Ostrom segment the conduit would be placed along the UPRR tracks separated by a ditch from the agricultural land. Along Ostrom and South Beale Roads, conduit construction would be placed in the gravel road shoulder, two to four feet from the pavement, between the road and the ditch. The Avondale trench would be located on the east side of the road. Boring operations would not affect any agricultural land. Staging areas would be located along the construction routes or at storage and equipment yards in Marysville and Biggs. As committed to by the Applicant (see Project Description Section 3.3.2) site conditions would be restored promptly to pre-project conditions following construction. The fiber optic cable system would transmit data underground and would not impact agricultural uses once in operation. No impact would occur.

- b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

NO IMPACT. Communications facilities are considered a compatible use in agricultural preserves under Government Code Section 51238. No project component or construction activity would be located on land covered under the Williamson Act. No impact will occur.

- c. Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?*

NO IMPACT. The proposed project would not cause other changes in the existing environment and would not cause the conversion of agricultural land to other uses. No impact would occur.

4.4 Air Quality

4.4.1 Setting

Air Pollution Climatology

The proposed project includes construction activity in Yuba and Butte Counties, which are within the Sacramento Valley Air Basin (SVAB). The climate of the SVAB is Mediterranean in character, with mild, rainy winter weather from November through March and warm to hot, dry weather from May through September. The topographic features giving shape to the SVAB are the Coast Range to the west, the Sierra Nevada to the east, and the Trinity Range to the north. These ranges channel winds through the Sacramento Valley but also inhibit dispersion of pollutant emissions.

The Sacramento Valley is subject to seasonal wind patterns. The predominant annual and summer wind pattern includes full sea breezes, commonly referred to as the Delta breezes. These cool winds originate from the Pacific Ocean and flow through a sea-level gap in the Coast range called the Carquinez Strait. In the winter season, northerly winds predominate.

Vertical and horizontal movement of air disperses and dilutes air pollutants. Without movement, air pollutants can collect and concentrate in a single area, increasing the risk of health hazards associated with air pollutants. Stagnant air conditions are most likely to occur in the Sacramento Valley during the summer and fall.

Persistent inversions occur frequently in the Sacramento Valley, both during the winter and summer, and they act to restrict vertical dispersion of pollutants released near ground level. Inversions in the winter involve nighttime cooling of air near the valley surface, which can trap carbon monoxide and particulate matter near sources. Summer inversions prohibit vertical mixing when the cool sea breeze gathers at the valley floor. This in turn creates a concentrated area of ozone that is trapped near ground level.

Pollutants, Standards, and Current Air Quality

Air quality is monitored, evaluated, and regulated by federal, State, regional, and local regulatory agencies and jurisdictions, including the United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB). Yuba County is under the jurisdiction of the Feather River Air Quality Management District (FRAQMD), and Butte County is under the jurisdiction of the Butte County Air Quality Management District (BCAQMD). The U.S. EPA, CARB, and the local air districts develop rules and/or regulations to attain the goals or directives imposed by legislation. Both State and regional regulations may be more, but not less, stringent than federal regulations.

The CARB establishes State ambient air quality standards and motor vehicle emission standards, conducts research, and oversees the activities of the local air districts, including the FRAQMD and BCAQMD. CARB has designated the Sacramento Valley as a non-attainment area with respect to ozone and particulate matter less than 10 microns (PM₁₀). The Sacramento Valley is an attainment area for nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and carbon monoxide (CO). Reactive organic gases (ROG) and nitrogen oxides (NO_x) are regulated as precursors to ozone formation.

Criteria for Determining Significance

The FRAQMD and BCAQMD regulate air quality through their permit authority over most stationary emission sources and through their planning and review activities. They have jurisdiction within the project area and are responsible for implementing emission standards. FRAQMD sets forth specific thresholds for air emissions in the 1998 FRAQMD Indirect Source Review Guidelines. The BCAQMD has thresholds in the local district rules that are less stringent (District Rule 430, New Source Review adopted in July 1996). Therefore, the proposed project would have a significant impact on air quality if it exceeded the more stringent FRAQMD thresholds, shown in Table 4-1.

**Table 4-1. FRAQMD and BCAQMD
Significance Thresholds For
Project Emissions**

	FRAQMD	BCAQMD
ROG	25 lbs/day	50 lbs/day
NO _x	25 lbs/day	50 lbs/day
PM ₁₀	80 lbs/day	80 lbs/day

FRAQMD thresholds, shown in Table 4-1.

Methodology for Determining Construction Emissions

The proposed project would produce emissions during construction activities. These emissions would be temporary and the project would not result in any permanent increases in emissions. No on-going operational emissions would be associated with this project. Construction equipment, including backhoes, excavators, tractors, and other vehicles, would be used during construction.

Table 4-2 summarizes estimated emissions associated with typical construction activities for fiber optic cable installation projects (e.g., installation of new access points and new conduits). Model outputs for the proposed project are provided in the PEA (EIP, 2002). The emissions include exhaust emissions from construction equipment and fugitive dust and PM₁₀ from vehicle activity on exposed earth. The PM₁₀ estimates of daily emissions assume one wheeled loader, one motor grader, one trencher, and one water truck, each operating eight hours per day, with a total disturbance of no more than one linear acre per day. Installation of cable in existing pipelines or conduit or through the use of boring techniques would result in emission levels lower than those shown in Table 4-2 because of less intensive use of construction equipment and less soil disturbance would occur with these activities. Use of a drill rig during boring may require a temporary stationary source permit from the applicable local air district.

Table 4-2. Construction Emissions Unmitigated

	ROG (lbs/day)	NO _x (lbs/day)	PM ₁₀ (lbs/day)
FRAQMD thresholds	25	25	80
Construction	7.01	55.89	2.51
Exceed threshold?	No	Yes	No

Source: EIP, 2002

Construction activities would generate temporary diesel exhaust emissions that are quantified above. In this analysis, odor impacts from the construction activities are evaluated qualitatively.

4.4.2 Environmental Impacts and Mitigation Measures

a. *Would the project conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The primary air emissions generated by the proposed project would be temporary, resulting from construction activities associated with the installation of a fiber optic line.

The emissions would be generated in an air basin that is classified as nonattainment for State and federal ambient air quality standards (i.e., ozone and PM₁₀). Areas classified as nonattainment are required to prepare air quality plans describing the steps that will be taken to reach attainment. For the proposed project, implementation of mitigation measures introduced below (AQ-1 and AQ-2) would reduce daily emissions to levels that would not be significant. With the recommended mitigation, the proposed construction activities would not conflict with the existing air quality plans or programs.

b. *Would the project violate any air quality standard or contribute to an existing or projected air quality violation?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Heavy equipment would produce temporarily increased levels of air pollutants during construction. Yuba County is currently in nonattainment for ozone and PM₁₀ and the project would result in the generation of air pollutants in areas classified as nonattainment areas. Specifically, construction of the proposed project would result in the generation of ROG, NO_x, and PM₁₀ pollutants. ROG and NO_x are pollutants of concern because they are

ozone precursors. As noted in Table 4-2, implementation of the proposed project would exceed the FRAQMD significance threshold for NO_x and would not exceed the FRAQMD thresholds for ROG or PM₁₀.

As noted in Table 4-2, the proposed project would generate approximately 56 lbs/day of NO_x. This would exceed both districts' thresholds, resulting in a potentially significant impact. The generation of this pollutant could contribute to existing air quality violations. Implementation of the following mitigation measures would minimize the amount of emissions and dust generated during construction activities and would reduce this to a less than significant level.

AQ-1 To reduce the amount of NO_x generated during construction activities, Williams shall ensure that the following conditions are implemented:

- Limit the amount of idling time for diesel powered equipment to 2 minutes or less.
- To reduce NO_x emissions associated with construction activities, the prime contractor shall provide a plan for approval by the CPUC, FRAQMD, and BCAQMD, demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, and operated by either the prime contractor or any subcontractor, will achieve a fleet-averaged 20 percent NO_x reduction and 45 percent particulate reduction compared to the most recent CARB fleet average. The plan shall be submitted at least 14 days before the start of construction and shall demonstrate that construction activities will be staged so that emissions will be below the significance thresholds established by the FRAQMD. The prime contractor shall adhere to the plan throughout the duration of construction.
- The prime contractor shall submit to the CPUC, FRAQMD, and BCAQMD, at least 14 days before the start of construction, a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used in an aggregate of 40 or more hours during the construction project. The inventory shall include the horsepower rating, engine production year, and hours of use or fuel throughput for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.
- The prime contractor shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity shall be repaired immediately, and the CPUC, FRAQMD, and BCAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly by the Applicant's representatives, and monthly summary of the visual survey results shall be submitted to the CPUC, FRAQMD and BCAQMD throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The FRAQMD, BCAQMD, and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this mitigation measure shall supersede other FRAQMD, BCAQMD, or State rules or regulations.

AQ-2 For construction activities requiring a drill rig, a stationary-source air permit may be required prior to the start of construction. For boring operations, the prime contractor shall contact the respective air districts to determine whether a stationary-source air permit is required. If required, the prime contractor shall obtain that permit prior to initiating any boring activities, and a copy of the permit shall be provided to the CPUC's environmental monitor prior to the commencement of construction.

- c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or State ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. With implementation of the identified mitigation measures described above (**AQ-1** and **AQ-2**), the proposed project would comply with all air quality standards. Construction and operation of the proposed fiber optic cable project would not conflict with or obstruct implementation of any applicable air quality plan, nor violate any air quality standard or contribute substantially to an air quality violation. With mitigation, the project would not result in a cumulatively considerable net increase of a nonattainment pollutant and, it would not expose sensitive receptors to substantial pollutant concentrations.

- d. Would the project expose sensitive receptors to substantial pollutant concentrations?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Sensitive receptors include residential homes, churches, schools, hospitals, and convalescent homes. The proposed project would occur within the vicinity of sensitive receptors. However as noted above, after incorporation of the recommended mitigation measures (**AQ-1** and **AQ-2**) emissions would not exceed FRAQMD thresholds, which are based on health standards. Because the mitigated emissions would not exceed the thresholds and sensitive receptors would not be exposed to substantial pollutant concentrations, this impact would be reduced to a less than significant level.

- e. Would the project create objectionable odors affecting a substantial number of people?*

LESS THAN SIGNIFICANT IMPACT. The proposed project may temporarily generate odors from diesel exhaust during construction activities. Local air district regulations require that all diesel engines be State certified and use reduced-sulfur fuel. Project odors resulting from construction activities would be temporary (one to three days at any one location) and would generally not affect a substantial number of people for prolonged periods of time. This impact would be less than significant and no additional mitigation is required.

4.5 Biological Resources

This section describes the biological resources that occur within the three proposed construction segments in Yuba and Butte Counties. It includes a description of common communities of plants and wildlife, wetlands, and special status plant and wildlife species, followed by an assessment of potential impacts to these resources and mitigation measures designed to offset them.

Information used in preparing this section was derived from the biological resources section of the PEA for the proposed project (EIP, 2002), which included data sources such as the California Natural Diversity Data Base (CNDDDB, 2002), Native Plant Society Database (CNPS, 2001), a list of Threatened and Endangered species from the U.S. Fish and Wildlife Service (USFWS) website, other planning documents from the project regions, and reconnaissance-level field surveys of the project areas conducted by EIP and Associates, the Applicant's consultant, in April of 2002 (Williams, 2002).

The occurrence of biological resources and the potential for project-related activities to impact these resources varies considerably among the six project segments. Among these segments, proposed work within three segments, will not require any ground-disturbing activities. The other three segments (Ostrom, Avondale, and Biggs) will require new construction that could impact biological resources. The

following bullets summarize the potential for biological impacts within each of these three project segments:

- The Ostrom segment would require approximately 4.5 miles of new construction, and will parallel a variety of natural habitats, including wetlands (e.g., vernal pool, seasonal wetland, and open-water canals). The majority of the potential biological impacts associated with the proposed project are found with this segment only.
- Cable installation along the Avondale segment would occur only within and along 2,000 feet of existing roadway adjacent to orchards, a railroad ROW, and residential properties. The potential biological impacts within the Avondale segment are those to protected raptor species that may nest in adjacent trees.
- Cable installation at the Biggs segment includes a 120-foot railroad bore within a residential/commercial area. The potential biological impacts within the Avondale segment are those to protected raptor species that may nest in adjacent trees.

4.5.1 Setting

Natural Vegetation Communities and Wildlife Habitats

The proposed project is located in the low-lying northern Sacramento Valley. The project vicinity is dominated by agricultural land uses, including farm and pastureland, with smaller residential, commercial, and military land uses. Natural vegetation communities that occur in the vicinity of the project include annual grassland, oak woodland, emergent and seasonal wetland, and riparian woodland.

The Ostrom segment consists of ruderal roadside vegetation, agricultural land, and annual grasslands. The natural upland areas in the vicinity of this segment contain annual grass species such as ripgut brome, fiddleneck, longbeak storks-bill, perennial ryegrass, leporinum barley, mustard, and rabbitsfoot grass. This region also supports wetland plants such as perennial ryegrass, curly dock, cattail, Mediterranean barley, and rushes. The undisturbed annual grasslands adjacent to Ostrom Road also support vernal pool habitat. These vegetation communities and aquatic features (agricultural drainages, freshwater emergent wetland, streams, and vernal pools) provide potential habitat for a variety of plant and wildlife species, including several special status species.

The Avondale segment supports ruderal roadside and orchard vegetation, and the Biggs segment has highly disturbed and sparsely distributed ruderal vegetation. The Avondale and Biggs segments are very short (2,000 feet and 120 feet, respectively) and are highly disturbed, supporting little wildlife habitat value.

Sensitive Natural Communities and Special Status Plants and Wildlife

Reconnaissance-level biological surveys of multiple alignment alternatives were conducted by EIP on April 19 and 29, 2002 to identify alignments with the smallest environmental impact. The project alignments identified in this document are those routes that EIP determined would have the least biological impacts. Survey findings indicate that no special status species habitat or sensitive natural communities occur within the construction limits of the proposed alignments (Williams, 2002). However, there are water crossings, wetlands, grassland areas and trees adjacent to Ostrom Road that may support habitat for special status plants and wildlife.

Wetlands

Wetland plants occur in portions of the two- to- eight-foot wide surface runoff ditches, approximately eight feet from the edge of the asphalt along both sides of Ostrom Road. These roadside ditches are

designed to carry surface runoff and prevent flooding of the roadway. Wetland plants within these roadside ditches include: perennial ryegrass (*Lolium perenne*), curly dock (*Rumex crispus*), cattail (*Typha sp.*), Mediterranean barley (*Hordeum marinum ssp. hystrix*), spikerush (*Eleocharis sp.*) and rushes (*Juncus sp.*). Where these ditches are influenced by irrigation water, wetland plants are more prevalent. In some areas along Ostrom Road, where the ditches are wider and irrigated water has ponded, the vegetation is more characteristic of marsh habitat (i.e., stands of cattails). The wetlands along Ostrom Road include:

- An irrigation canal with a culvert crossing under the road occurs 0.9 miles from the western end of Ostrom Road.
- A larger irrigation canal that crosses under Ostrom Road and continues north along Bradshaw Road (1.9 miles from the western end of Ostrom Road),
- A short segment of roadside irrigation ditch that supports wetland vegetation (located where Ostrom Road becomes South Beale Road). The deep irrigation ditch on the north side of road at this location also supports wetland vegetation.

Jurisdictional wetlands within the project construction area are confined to the two water crossings and wider portions of the adjacent irrigation ditches. The wider irrigation ditches that support dominant wetland plant species and the canal crossings are both considered jurisdictional wetlands, and would be avoided by horizontal boring at these locations. The U.S. Army Corps of Engineers has determined that they would not take jurisdiction over the roadside surface runoff ditches (Walker, EIP, 2002) and these areas would be trenched for placement of the fiber optic cable.

Vernal pools occur within grasslands adjacent to roadside ditches and irrigation canals along Ostrom Road. The roadside ditches and irrigation canals form a hydrologic barrier between the project area and these vernal pools.

Special Status Species

A literature review and field survey was conducted to identify potential project impacts to special status species (Williams, 2002). The CNDDDB was queried for the USGS Wheatland, Olivehurst, Yuba City, and Biggs 7.5-minute topographic quadrangles to identify documented occurrences of special status species within the project vicinity. The CNDDDB query produced records for 16 special status plants, wildlife, and sensitive habitats within the proposed project vicinity (Table 4-3). Of these 16 records, three occur within one mile of the project. These aquatic species include:

- Vernal pool fairy shrimp (*Branchinecta lynchi*)
- Northwestern pond turtle (*Clemmys marmorata marmorata*)
- Dwarf downingia (*Downingia pusilla*).

The CNDDDB query produced records for three sensitive natural communities within the vicinity of the project site: great valley cottonwood riparian forest, great valley mixed riparian forest, and northern hardpan vernal pool. Northern hardpan vernal pools in the immediate vicinity of the project could potentially support special status wildlife species including: vernal pool fairy shrimp, vernal pool tadpole shrimp (*Lepidurus packardii*), four-angled spikerush (*Eleocharis quadrangulata*), Ahart's dwarf rush (*Juncus Leiospermus var. ahartii*), Hartweg's golden sunburst (*Pseudobahia bahiifolia*), and Greene's tuctoria (*Tuctoria greenei*). These species are associated with aquatic environments.

Some of the wetland areas adjacent to Ostrom Road may support potential breeding/nesting habitat for tricolored blackbird (*Agelaius tricolor*) and northern harrier (*Circus cyaneus*). These species could be indirectly impacted by the construction-related activities that could affect their breeding success. A more

detailed discussion of these species follows. The adjacent wetlands also provide potential habitat for giant garter snake. This species, however, is not expected to occur in the project area, since the project is outside the current range of GGS habitat (Dale Whitmore, CDFG, pers. comm., 2002), and due to a lack of nearby recorded GGS occurrences in Yuba County (CNDDDB, July 2002).

Tricolored Blackbird. The tricolored blackbird is a federal and California species of special concern that is common to California. This species is known to nest throughout the Central Valley and along the from Sonoma County to Mexico (Zeiner et al. 1990b). Tricolored blackbirds are known to nest in dense colonies in thick stands of emergent wetland vegetation (e.g. cattails and tules) where there is a permanent water source. Tricolored blackbirds have also been observed nesting in riparian vegetation such as willows, thistles, blackberry, and wild rose, when freshwater emergent vegetation is not available (Zeiner et al. 1990b). The nesting season is March through September, and nest sites are generally in close proximity to foraging areas (e.g. rice fields, pond margins and grasslands).

No nesting tricolored blackbirds are known or have been reported in the immediate project vicinity. The emergent wetland vegetation associated with canals and irrigation ditches in the project vicinity, however, could provide nesting habitat for this species.

Northern Harrier. The northern harrier is a California species of special concern and is present in the Central Valley as both a winter and year-round resident (Zeiner et al. 1990b). Harriers commonly construct nests on the ground, hidden by shrubby vegetation, tall grasses and forbs in wetlands and at wetland/upland borders. Nests are usually a large mound of sticks built on moist ground. The species breeds from April to September, with peak activity June through July (Zeiner et al. 1990b). The nestling period lasts about 53 days. Breeding pairs and juveniles may roost communally in late autumn and winter. Foraging areas consist of open ground and grasslands, and prey includes small mammals, birds, reptiles and amphibians.

No nesting northern harriers are known or have been reported in the immediate project vicinity. Adjacent grassland and seasonal wetland areas in the project vicinity, however, could provide suitable nesting habitat for this species.

Table 4-3. Special Status Species Occurrences Within the Vicinity of the Proposed Alignments

Common Name	Scientific Name	Status ¹ Fed/CA/CNPS	Habitat and Seasonal Distribution in California	Potential to Occur Within the Project Area
PLANTS				
Dwarf Downingia	<i>Downingia pusilla</i>	none/none/2	Valley and foothill grassland, vernal pools; elevation 1-445 meters. Blooming season March-May.	This species may occur within annual grassland and vernal pool habitats adjacent to the proposed project.
Ahart's Dwarf Rush	<i>Juncus leiospermus</i> var <i>ahartii</i>	none/none/1B	Valley foothill grassland (mesic); elevation 30-100 meters. Vernal pools. Blooming season March-May.	This species may occur within annual grassland and vernal pool habitats adjacent to the proposed project.
Hartweg's Golden Sunburst	<i>Pseudohahia bahiifolia</i>	FE/SE/1B	Occurs in open grasslands and grasslands at the margins of blue oak woodland, primarily on shallow, well-drained, fine-textured soils, nearly always on the north or northeast facing of Mima mounds.	This species is not expected to occur within the project due to lack of suitable habitat.
Greene's tuctoria	<i>Tuctoria greenei</i>	FE/Rare/1B	Small or shallow vernal pools or the early drying sections of large, deep vernal pools. This species is unable to grow in soils that are inundated or saturated during the late spring and early summer.	This species may occur within annual grassland and vernal pool habitats adjacent to the proposed project
INVERTEBRATES				
Vernal Pool Fairy Shrimp	<i>Branchinecta lynchi</i>	FT/none/none	Endemic to the grasslands of the Central Valley, central coastal mountains and south coast mountains in astatic rain filled pools. Inhabits small, clear water sandstone-depression pools and grassed swale, earth slump or basalt-flow depression pools.	This species may occur within annual grassland and vernal pool habitats adjacent to the proposed project.
Vernal Pool Tadpole Shrimp	<i>Lepidurus packardi</i>	FE/none/none	Endemic to the grasslands of the Central Valley, central coastal mountains and south coast mountains in static rain filled pools. Inhabits small, clear water sandstone-depression pools and grassed swale, earth slump or basalt-flow depression pools.	This species may occur within annual grassland and vernal pool habitats adjacent to the proposed project.
California linderiella	<i>Linderiella occidentalis</i>	none/CSC/none	California linderiella inhabit clear to tea-colored water in seasonal ponds ranging in size from square feet to many acres. Such ponds are typically located in grasslands or in depressions of sedimentary rock. High pH and several other factors have been found to characterize such ponds.	This species may occur within annual grassland and vernal pool habitats adjacent to the proposed project.

Common Name	Scientific Name	Status ¹ Fed/CA/CNPS	Habitat and Seasonal Distribution in California	Potential to Occur Within the Project Area
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT/none/none	Occurs only in the Central Valley, in association with blue elderberry (<i>Sambucus mexicana</i>). Prefers to lay eggs in elderberry branches 2-8 inches in diameter.	This species is not expected to be impacted by the proposed project due to lack of suitable elderberry habitat.

FISHES

Spring-run Chinook salmon	<i>Oncorhynchus tshawytscha</i>	FT/FT/none	Enter rivers as immature fish in spring and early summer. Historically the spring-run Chinook migrated upstream to Sacramento, San Joaquin, Klamath, and Eel Rivers. Today dams block most of their historical spawning areas, and they persist in just a few streams in the Sacramento and Klamath drainages.	This species is not expected to be impacted by the proposed project due to lack of suitable riverine habitat.
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REPTILES

Giant garter snake	<i>Thamnophis gigas</i>	FT/ST/none	Historically, the range of the giant garter snake (GGS) was the San Joaquin Valley from the vicinity of Sacramento and Antioch southward to Buena Vista and the Tulare Lake Basin. The current distribution extends from near Chico, Butte County, to the vicinity of Burrel, Fresno County. Habitat includes areas of freshwater marsh and low-gradient streams. Additionally, it has adapted to human-made habitats, such as drainage canals and irrigation ditches, especially those associated with rice farming.	Potential aquatic habitat for this species occurs within the Ostrom Road Segment. This species is not expected to occur in the project area since the project is outside the current range of GGS habitat (Dale Whitmore, CDFG, pers. comm. between EIP and CDFG), and due to a lack of nearby recorded GGS occurrences (no recorded occurrences in Yuba County, CNDDDB, July 2002)
Northwestern Pond Turtle	<i>Clemmys marmorata marmorata</i>	FSC/CSC/none	Associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites. Nest sites may be found up to 0.5 km from water.	Not expected to occur in the vicinity of the project area due to a lack of perennial or semi-perennial water and basking habitat.

BIRDS

Tricolored blackbird	<i>Agelaius tricolor</i>	none/CSC/none	Breeds from S. Oregon to NW Baja, California. Associated with large cattail or tule marshes; forages in open grassland and croplands.	No nesting habitat occurs within the proposed construction area, but may occur within the vicinity of the project.
Northern harrier	<i>Circus cyaneus</i>	none/CSC/none	Range includes Alaska, Canada to south U.S. Preferred habitat consist of marshes, open grasslands and prairies.	No nesting habitat occurs within the proposed construction area, but may occur within the vicinity of the project.

Common Name	Scientific Name	Status ¹ Fed/CA/CNPS	Habitat and Seasonal Distribution in California	Potential to Occur Within the Project Area
Bank Swallow	<i>Riparia riparia</i>	none/ST/none	Requires vertical banks and cliffs with fine-textured or sandy soils near streams, rivers, ponds, lakes, and the ocean for nesting. Feeds primarily over grassland, shrubland, savannah, and open riparian areas during breeding season and over grassland, brushland, wetlands, and cropland during migration. Arrives in California from South America in early March and numbers peak by early May. Colonies are vacant by late July or early August, and migrants are observed usually through early or mid-September	Not expected to occur in the vicinity of the project area due to a lack of suitable vertical bank/cliff breeding/nesting habitat.
Western Yellow-Billed Cuckoo	<i>Coccyzus americanus occidentalis</i>	none/SE/none	Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, and which about on slow-moving watercourses, backwaters, or seeps. Willow almost always a dominant component of the vegetation. Nests typically in sites with at least some willow, dense low-level or understory foliage, high humidity, and wooded foraging spaces in excess of 93 m.	Not expected to occur in the vicinity of the project area due to the lack of suitable riparian breeding/nesting habitat.

¹ Status: **Federal (FED)**: FE = Federally listed as Endangered; FT = Federally listed as Threatened; FC = Federal Candidate Species; FSC = U.S. Fish & Wildlife Service designated "Species of Concern." **State (CA)**: SE = State listed as Endangered; ST = State listed as Threatened; CSC = California Department of Fish and Game designated "Species of Special Concern." **California Native Plant Society (CNPS)**: 1B = California Native Plant Society (CNPS) Ranking. Defined as plants that are rare, threatened, or endangered throughout their range. All but a few are endemic to California. 2 = California Native Plant Society (CNPS) Ranking. Defined as plants that are rare, threatened, or endangered throughout their range. Common beyond the boundaries of California.

Occurrence Sources: CDFG Natural Diversity Database (CNDDDB); site vicinity is 1-mile radius.

4.5.2 Environmental Impacts and Mitigation Measures

- a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Any potential adverse effects (either direct or indirect, through habitat modification), associated with installation of the fiber optic cable, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service, would be mitigated to less than significant levels by implementation of Mitigation Measures **BIO-1** through **BIO-7**.

Construction-related activities along the Ostrom segment could cause soil erosion, dust, and sedimentation, and may result in indirect adverse effects on vernal pool habitat (a sensitive natural community) or subsequently reduce local populations of special status plant and wildlife species associated with this habitat. This potentially significant impact would be reduced to a less than significant level through implementation of Mitigation Measure **WQ-1**. Similarly, special status plant and wildlife species and their habitats could be affected by hazardous materials (e.g., gas fuel and oil) that could be released into the environment during construction. This potentially significant impact would be reduced to a less than significant level through implementation of Mitigation Measure **HAZ-2**.

Directional boring of water crossings along the Ostrom segment could result in accidental bentonite seeps through frac-outs,¹ which could affect special status plant and animal species in waters adjacent to the project area. The potential frac-outs will be reduced to a less than significant impact through implementation of Mitigation Measure **WQ-2**.

Construction activities and related noise, dust, and traffic impacts could affect breeding success of special status bird species (e.g., tricolored blackbird, Northern harrier, and a variety of raptor species) could occur in habitats (e.g. ditches, emergent wetlands, grassland or trees) adjacent to the Ostrom Road, Avondale, and Biggs segments. Implementation of Mitigation Measure **BIO-3**, however, will reduce these impacts to less than significant levels. Although the project is outside the known range of giant garter snake (GGS) (Table 4-3), construction related activities along Ostrom Road will take place near potential habitat for this species (stream crossing and adjacent wetlands). To avoid any potential to impact the GGS, biological monitors will conduct pre-construction surveys within sensitive wetland and aquatic areas that potentially support this species along Ostrom Road (**BIO-1** and **BIO 2**), and will clearly mark (stake or flag) such areas for avoidance (**BIO-7**). Other protective measures, including backfilling of open trenches (**BIO-4**) and implementation of Worker Environmental Awareness Program Training (**BIO-5**), will reduce potential impacts to GGS to a less than significant level.

The mitigation measures presented in this section to reduce potential adverse effects on biological resources (e.g., special-status species and wetlands) have not been developed in consultation with CDFG and USFWS. Therefore, changes to these mitigation measures may be required during subsequent consultation with resource agencies. Additional mitigation measures that may be identified as part of the permit review process (e.g., 1603 Streambed Alteration Agreement) shall be implemented as specified by the permit conditions (**BIO-6**). Throughout the life of the project, additional species may be listed or designated as special status. If new species are listed subsequent to this document and during the life of the project, consultation or coordination with the resource agencies will be required.

BIO-1 The Applicant shall retain qualified biologists and other qualified resource specialists, as necessary, to monitor project construction along the Ostrom, Avondale, and Biggs segments. Monitors shall be hired and trained prior to construction and shall be responsible for pre-construction surveys (**BIO-2**), resource delimitation (i.e. staking, flagging, etc.), onsite monitoring, documentation of violations and compliance, coordination with construction inspectors, and post-construction documentation.

The Applicant's biological monitors shall locate and stake sensitive resources before construction activities begin in the Ostrom, Avondale, and Biggs segments. Resource monitors/contract construction inspectors shall patrol areas and work with contract compliance inspectors to ensure that barrier fencing, stakes, and required setback buffers are maintained in these locations. They shall also monitor all construction activities along the Ostrom segment.

¹ [Insert definition]

The Applicant's monitors shall be responsible for completing CPUC variance forms and obtaining clearance from the CPUC and resource agencies (CDFG and USFWS) for deviations from the agreed-upon mitigation measures.

BIO-2 The designated biologist (**BIO-1**) shall conduct daily pre-construction surveys prior to installation activities along the Ostrom segment to determine if any special status species or nesting raptors are present. Additionally, the designated biologist shall conduct pre-construction surveys along the Avondale and Biggs segments to determine if raptors are nesting within 500-feet of the proposed routes (**BIO-3**). Areas along Ostrom Road that could support special status wildlife species (streams, grasslands, wetlands) shall be avoided by project design (e.g., directional drilling) and shall be clearly staked or flagged for avoidance (**BIO-1, BIO-3, and BIO-7**).

BIO-3 The Applicant shall implement the following timing restrictions to avoid disturbance to sensitive species breeding or nesting seasons:

- **Nesting tricolored blackbird and northern harrier.** For project activities along the Ostrom segment that occur within 250 of potential nesting habitat for tricolored blackbird and northern harrier, pre-construction surveys shall be conducted to determine the presence of nesting birds no more than two weeks prior to construction during March-September. If pre-nesting or nesting activity is identified, a determination shall be made in consultation with CDFG as to whether or not construction will impact nesting birds. If it is determined that construction will impact nests, construction within 250-feet of the nesting locations shall be delayed until juvenile birds have fledged.
- **Nesting raptors.** Pre-construction surveys shall be performed along the Ostrom, Avondale, and Biggs segments to identify potential raptor nesting sites. To avoid potential adverse effects on nesting raptors, a no-disturbance buffer zone shall be established around active nests during the breeding season. No construction shall occur within the specified buffer zones during the breeding season (February 1 to August 31) or until it is determined that young have fledged.
- If construction activities are proposed to occur only during the non-breeding season (August 31 through February 1), no pre-construction surveys shall be required. If, however, construction activities are scheduled to occur during the breeding season, pre-construction surveys of all potentially active nest sites within 500-feet of the construction corridor (access permitting) shall be conducted in areas that may potentially have nesting raptors. If surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, no further mitigation shall be required.
- If active nests are found, a 500-foot, no-disturbance buffer shall be established around the active nest. The size of individual buffers can be adjusted, following a site evaluation by a qualified raptor biologist, which shall involve the presence of topographical features that obstruct the line of site from the construction activities to the nest or observations of the nesting pair during construction based on the level of ongoing disturbance (e.g., farming activities or road traffic) and the observed sensitivity of the birds. Site evaluations and buffer adjustments shall be made in consultation with the local CDFG representative. The portion of the project that is within the designated buffer shall be identified in the field by staking and flagging.

BIO-4 At the end of each workday, open trenches shall be fully covered with steel plates to prevent entrapment of wildlife species. Both ends of any open trench shall be sloped to form escape ramps before they are covered. If wildlife is found in a trench, the designated biological monitor shall immediately be informed and the animal(s) shall be removed. If the animal(s) is/are a sensitive species that requires special handling authorization (e.g., giant garter snake) a qualified biologist (agency-permitted or

approved to handle a specific species) shall remove the animal before resumption of work in that trench segment. The Applicant shall specify this requirement in the agreements with all construction contractors.

BIO-5 The project Applicant shall conduct Worker Environmental Awareness Program (WEAP) training for construction crews (primarily crew and construction foremen) before construction activities begin. The WEAP shall include a brief review of the special status species and other sensitive resources that could occur in the proposed project area (including their life history and habitat requirements and what portions of the proposed project area they may be found in) and their legal status and protection. The program shall also cover all mitigation measures, environmental permits and proposed project plans, such as SWPPP (**WQ-1**), BMPs, erosion control and sediment plan, reclamation plan, and any other required plans. The program shall also present the locations of sensitive resources on construction drawings. The designated biological monitor shall be responsible for ensuring that construction personnel adhere to the guidelines and restrictions. WEAP training sessions shall be conducted as needed for new personnel brought onto the job during the construction period. A list of all personnel who have attended the WEAP training shall be kept by the biological monitor and shall be available for CPUC review in the field at all times, and a copy shall be submitted to the CPUC. During WEAP training, construction personnel shall be informed of the importance of avoiding ground-disturbing activities outside of the designated work area.

BIO-6 The Applicant shall acquire all permits and authorizations required by federal, State, regional, and local jurisdictions to construct near areas with sensitive biological resources. Throughout the life of the project, additional species may be listed or designated as special status, and Williams shall comply with any new requirements of the USFWS or CDFG for such species.

BIO-7 Fiber optic cable installation shall be limited to a 10-foot wide work area along Ostrom Road and shall not take place within any sensitive habitats, including wetlands and stream crossings that cross or are adjacent to the road. Prior to initiation of construction activities near identified jurisdictional wetlands, the designated biological monitor shall identify the specific location(s) and install protective barriers to protect these resources. The contract inspectors and designated biological monitor shall routinely inspect these areas to ensure that barriers remain in place and are effective. Protective barriers shall remain in place until all construction activities are complete in areas near sensitive resources. Wetlands and stream crossings shall also be identified on the construction drawings.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Sensitive resources (e.g., stream crossings, wetlands, and grasslands areas) occur adjacent to the Ostrom segment, and could be adversely affected by the proposed project. With the implementation of Mitigation Measures **BIO-1**, **BIO-2**, **BIO-5**, and **BIO-6**, these impacts would be reduced to less than significant levels.

- c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

NO IMPACT. Construction of the proposed project would involve trenching within roadway shoulders. No project work would take place within jurisdictional wetlands or other waters, and all jurisdictional areas associated with canals and stream crossings would be horizontally drilled. Due to the temporary nature of construction and the above-described installation technique for the fiber optic cable, the U.S. Army Corps of Engineers has confirmed that no impacts to jurisdictional wetlands and other waters of the U.S. are anticipated, and that no Section 404 permit is required (Walker, 2002).

- d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

LESS THAN SIGNIFICANT IMPACT. The proposed project route is along existing maintained roadway shoulders and does not provide significant movement habitat for terrestrial wildlife. The deeply incised agricultural drainages that would be crossed within the proposed project alignment are highly degraded, and do not support migratory habitat for native resident wildlife and/or fishes. Also, direct impacts to these drainages would be avoided by horizontally drilling the fiber optic cable to avoid all impacts to jurisdictional wetland areas associated with the water crossings. Consequently, any impacts would be less than significant and no mitigation is warranted.

- e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The Applicant has indicated that no trees will be removed and that if any variation is required that could adversely affect locally protected trees within the project area, the project proponent would seek permits from the local regulatory agency before proceeding. With such permits, any impacts should be mitigated to a less than significant level. Mitigation Measure BIO-8 would ensure that, if necessary, tree permits are obtained prior to project-related clearing.

BIO-8 The Applicant shall obtain any and all required permits from appropriate local jurisdictions prior to removal of or damage to trees along or adjacent to the Ostrom Road, Avondale, or Biggs segments.

- f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?*

NO IMPACT. The Applicant has indicated that the project site is not within the boundaries of any existing or currently proposed Habitat Conservation Plan or Natural Community Conservation Plan (Williams, 2002). Therefore, the proposed project would not conflict with any such plans, and no impact would occur.

4.6 Cultural Resources

4.6.1 Setting

Information used in preparing this section was derived from the Cultural Resource Assessment of the Marysville Sentry Project, Yuba and Butte Counties, California prepared by Peak and Associates, Inc. (2002). This included consultation with the Native American Heritage Commission and a record search of the sacred lands file which did not indicate the presence of Native American cultural resources in the immediate project area. Consultation was also initiated with the Butte Tribal Council, Konkow Valley Band of Maidu, Maidu Advisory Council, Mechoopda Indian Tribe of Chico Rancheria, Maidu Elders Organization and Maidu Nation.

The proposed project is in Yuba and Butte Counties in the Northern Sacramento Valley, approximately 40 to 60 miles north of Sacramento. All of the proposed alignments are across roadways, in already disturbed shoulders, or are in railroad right-of-ways. Only segments 3, 4, and 6 would require new construction. Segments 1, 2, and 5 would use existing fiber optic cable.

Segments 3 and 4 consist of new construction of conduit system and installation of new fiber optic cable. The construction will occur across local roads or within their disturbed shoulders. Portions of the proposed project areas had been previously inspected by archeologists. One previously recorded cultural resource, the route of the California Central Railroad (now Union Pacific Railroad), was found within or adjacent to Segment 3's proposed line. However, this information is in error as the California Central Railroad was built to Lincoln in 1866, but never extended past that point under the name "California Central." Other railroads are indicated as potential historic resources on the record search maps. In addition, one prehistoric period site, located 1,000 feet west of the proposed route, was found.

Segment 6 consists of a newly constructed railroad crossing and the installation of fiber optic cable to tie into the existing Williams Communications Sacramento to Portland Backbone conduit system. This short portion of the project would occur in railroad right-of-way and no cultural resources have been identified in or near the proposed project area.

4.6.2 Impacts and Mitigation Measures

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. All of the proposed alignments are across roadways, in already disturbed shoulders, or in railroad ROWs. Therefore, it is unlikely that unidentified historical resources would be encountered during project construction. However, in the event an unknown historical resource is found, portions of it could be damaged and/or destroyed as a result of construction related activities either from trenching for installation of the conduits, portals excavated for directional boring, or other ground-disturbing activities. However, with implementation of Mitigation Measures CR-1 and CR-2 (see below), these impacts would be reduced to less than significant levels.

CR-1 Williams Communications shall appoint a Cultural Resources Specialist (CRS), or specialists to monitor the site construction activities, prior to the start of project-related vegetation clearance, ground disturbance and grading, site or project mobilization, site preparation or excavation activities, implementation of erosion control measures, or movement or parking of heavy equipment or other vehicles onto or over unpaved or

natural areas of the project. Williams Communications shall submit to the CPUC, for review and approval, the name(s) and statement of qualifications for its designated cultural resources specialist, or specialists, who will be responsible for implementation of all cultural resources mitigation measures. The statement of qualifications must be sufficient to substantiate that the CRS meets the Secretary of the Interior's proposed Historic Preservation Qualification Standards as published in the Federal Register.

Prior to the start of any project-related activity defined above, Williams Communications shall confirm in writing to the CPUC that the approved designated CRS will be available at the start of the project and is prepared to implement the mitigation measures. Ten days prior to the termination or release of a designated CRS, Williams Communications shall obtain the CPUC approval of the proposed replacement CRS.

CR-2

Should previously unidentified cultural resources be encountered during construction, work within 100 feet of the area of the find shall stop until such time that a qualified archaeologist can evaluate the find and make appropriate recommendations for mitigation, if warranted. The CRS shall immediately notify the CPUC Environmental Monitor. If the find is significant, the resource shall be avoided. If avoidance is not possible, a meeting with the CPUC and other agency personnel shall be held to discuss data recovery and/or other measures as possible mitigation. Data recovery may be considered appropriate mitigation when it reduces a significant impact to a less than significant level, but this would be dependent upon the value of the discovered resource. An appropriate research design describing the methods to be used during recovery and analysis, research questions to be addressed, and artifact curation requirements shall direct the data recovery. The technical report of findings shall be submitted to the CPUC and the appropriate CHRIS Information Centers. Implementation of this mitigation measure will result in avoidance of a substantial adverse change in the significance of historical or archaeological resources that could be inadvertently discovered during construction.

b. Would the project cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Possible substantial effects could occur to unknown archaeological (prehistoric and historic) deposits from trenching operations (construction-related impact, particularly open trenches and portals for directional boring within site-specific sensitive areas). Although the project does not encompass areas known to have high potential for cultural resources and other features associated with prehistoric occupation and historic settlement, there is the possibility that a site may exist and be totally obscured by vegetation, fill, or other historic activities, leaving no surface evidence. In the event an archeological resource is inadvertently discovered during construction, implementation of mitigation measures CR-1 and CR-2 would result in avoidance of a substantial adverse change in the significance of historical or archaeological resources.

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The project site is not located within an area that is considered to have a high sensitivity for paleontological or unique geologic resources. However, in the unlikely event that the unearthing of paleontological or unique geologic resources occurs as a result of construction activities, with implementation of Mitigation Measure CR-3, this impact would be reduced to less than significant levels.

CR-3 In the event that fossil remains are encountered during project construction, qualified paleontological specialists shall be contacted. Construction within 100 feet of the find shall be temporarily halted or diverted until a qualified vertebrate paleontologist examines the discovery. The paleontologist shall notify the appropriate agencies and the CPUC Environmental Monitor to determine procedures that would be followed before construction is allowed to resume at the location of the find. Significant fossils shall be salvaged through a program of excavation, analysis, and documentation approved by the CPUC and appropriate agencies. Fossil remains collected during the salvage program shall be cleaned, sorted, catalogued, and then deposited in a public, non-profit institution with research interests in the materials.

d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Possible substantial effects may occur to human burials from trenching operations (construction-related impact, particularly open trenches and portals for directional boring within specified sensitive area). Although no burial sites were found during the survey, there is the possibility that a site may exist and be totally obscured by vegetation, fill, or other historic activities, leaving no surface evidence. This could include burials of prehistoric remains or non-Indian pioneers. However, with implementation of Mitigation Measure CR-4, this impact would be reduced to less than significant levels.

CR-4 If human remains are found at any time during project activities (vegetation clearance; ground disturbance and grading; site or project mobilization; site preparation or excavation activities; implementation of erosion control measures; or the movement of parking of heavy equipment or other vehicles onto or over the project surface), all work shall immediately stop within 150 feet of the find. The CRS shall be notified immediately and shall, in turn, immediately notify the county coroner for the appropriate county in compliance with Section 7050.5 of the California Health and Safety Code and notify the CPUC Environmental Monitor. If the coroner determines that the remains are of Native American origin, the coroner shall contact the NAHC within 24 hours. If human remains of Native American origin are discovered during ground-disturbing activities on nonfederal lands, State laws relating to the disposition of Native American burials will apply. The Native American Heritage Commission (NAHC) will have jurisdiction (Pub. Res. Code Sec. 5097). The NAHC shall identify the person or persons it believes are the most likely descendant of the deceased Native American.

4.7 Geology and Soils

4.7.1 Setting

Geologic and Seismic Characteristics of the Study Zones

The Alquist-Priolo Earthquake Fault Zoning Act, the Seismic Hazards Mapping Act, and the California Building Code provide regulations and standards for development to reduce geologic hazards. City and county jurisdictions are responsible for permitting and enforcement of regulations under these State laws. Such jurisdictions may have additional local standards and ordinances related to geologic and seismic hazards. However, neither Yuba County nor the City of Biggs has such additional requirements that may apply to the proposed project. The project site is not located within an Alquist-Priolo Earthquake Fault Zone,

nor is it within an official or preliminary official Seismic Hazard Zone area, as delineated by the California Division of Mines and Geology.

Soil Characteristics

The project area is in largely rural and agricultural areas. The Ostrom segment and portions of the Avondale segments are surrounded by important farmlands (see Agriculture Section 4.3.2 above). All new construction would be located within public roadway or railroad ROW in soils that have been previously disturbed, filled, and/or compacted during the course of road or railroad construction. Therefore, no soils in their natural conditions would be affected.

4.7.2 Environmental Impacts and Mitigation Measures

- a. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure (including liquefaction), or landslides?*

LESS THAN SIGNIFICANT IMPACT. As noted above, the project site is not within an Alquist-Priolo Earthquake Fault Zone, nor is it within an official or preliminary official Seismic Hazard Zone area, as delineated by the California Division of Mines and Geology. However, because seismic activity is common throughout California, the project site could be exposed to earthquake ground shaking and there could be possible temporary damage to the cable system or facilities located along some of the route segments.

The cable conduits would be made of flexible high-density polyethylene (HDPE) plastic, placed in trenches and covered with dirt that would be compacted to at least 95 percent of its original density. Manholes would be the same as those routinely used for utility service. The facilities and cable system would be certified by their manufacturers, and be installed, to meet necessary seismic design standards (Gillett, 2002). Because of the nature of the facilities and materials used for conduits and cables and their proposed underground location, the project would not expose people or structures to geologic hazards during its operation.

Lastly, the project area's topography is relatively flat. Therefore, landslides do not present a hazard in the project area.

Project-related seismic hazards impacts would be less than significant.

- b. Would the project result in substantial soil erosion or the loss of topsoil?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Soils within the project site, many of which are already disturbed, vary widely with respect to their erosion hazard. Project-related ground-disturbing activities, including removal of vegetation, could increase water runoff rates, and concentrated flows could cause accelerated erosion. As required by Mitigation Measures **WQ-1** (see Section 4.9.2) and **BIO-1** (see Section 4.5.2), Best Management Practices (BMPs) to control erosion and sedimentation would be developed and implemented for each segment and a Stormwater Pollution Prevention Plan (SWPPP) would be developed for the Ostrom segment. The geologic impacts related to erosion and soil loss would be less than significant with the mitigation measure incorporated.

- c. Would the project be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*

LESS THAN SIGNIFICANT IMPACT. The project sites may be subject to earthquake induced soil instability, which could damage the cable system if it is not properly engineered. Project design and construction would comply with the latest Uniform Building Code (UBC) engineering and construction techniques, and damage to the cable system would not have an adverse physical effect on humans or the environment (Walker, 2002). Because of the flat terrain, no landslides would occur. None of the project sites are located in a fill area that would be subject to liquefaction. Therefore, this impact is considered less than significant.

- d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?*

LESS THAN SIGNIFICANT IMPACT. The Uniform Building Code (UBC) may consider soils within the project site expansive. If not properly engineered, seasonal soil expansion and contraction could damage the cable system. However, project construction would comply with UBC-required engineering and construction techniques. This impact is considered less than significant.

- e. Would the proposed project leave soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?*

NO IMPACT. The project site would not involve the use or installation of septic systems or alternative wastewater disposal systems. No impact would occur.

4.8 Hazards and Hazardous Materials

4.8.1 Setting and Introduction

Because of the rural community and agricultural area in which new project construction is proposed, the primary issues of concern related to hazardous materials handling and contamination are: (a) worker health and safety; and (b) public exposure to hazardous materials during construction and waste handling. These hazards could result from construction-related fuel spills and the excavation of previously unknown contaminated materials from trenching along the UPRR ROW in the Ostrom Road segment and the bore under the railroad tracks in the Biggs segment.

4.8.2 Environmental Impacts and Mitigation Measures

- a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The proposed project would not require long-term storage, treatment, disposal, or transport of significant quantities of hazardous materials; however, small quantities of hazardous materials would be stored, used, and handled during project construction. These relatively small quantities would be below reporting requirements for hazardous materials business plans. Given the land uses along the construction routes, they would not be considered to pose public health and safety hazards through release of emissions or risk of upset. The hazardous materials that would be used are small volumes of petroleum hydrocarbons and their

derivatives (e.g., gasoline, diesel fuel, oils, lubricants, and solvents) required to operate the construction equipment and bentonite used for boring lubrication. These materials would generally be used with excavation equipment, generators, and other construction equipment and would be contained within vessels engineered for safe storage. Due to the rate of installation, storage of significant quantities of these materials at the construction site is not anticipated. Rather, tender vehicles would provide fuel and lubricant to construction equipment on a daily basis and would be mobilized from Marysville or Biggs. Spills during on-site fueling of equipment or an upset condition (e.g., puncture of a fuel tank through operator error or slope instability), could result in a release of fuel or oils into the environment, potentially affecting sensitive waterways along the project alignment. This impact would be reduced to a less than significant level by the implementation of Mitigation Measures **WQ-1** and **WQ-2** (Section 4.9.2).

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Subsurface hazardous materials may be encountered during underground construction activities, such as trenching and boring. The construction team could encounter unexpected hazardous waste materials such as soil contaminated with petroleum products. Procedures of proper handling and disposal of hazardous waste are established by federal, State, and local regulations. The Applicant's contractors would be trained in the handling of such materials prior to construction (Earnest, 2002).

Such materials excavated from conduit installation in public ROWs would be loaded into dump trucks and hauled away for proper disposal. The potential exists for contaminated soil or groundwater to be encountered during excavation or dewatering activities during conduit installation. If encountered, contaminated materials would be classified as a hazardous waste, a designated waste, or a special waste, depending on the type and degree of contamination.

Disposal of excavated soils as standard demolition waste or use as fill for another construction site could result in a significant impact if those soils were contaminated. This would be considered a potentially significant impact.

In addition, the project could result in disposal of materials that would pose a hazard to people, animal, or plant populations in the vicinity of unknown, but potentially present, site contamination.

Implementation of Mitigation Measures **HAZ-1** through **HAZ-3**, designed to ensure proper labeling, storage, handling, and use of hazardous materials, and the preparation of a hazardous materials management/spill prevention plan and a health and safety plan, would reduce potentially significant impacts to less than significant levels.

HAZ-1 The Applicant shall ensure proper labeling, storage, handling, and use of hazardous materials in accordance with best management practices and the Occupational Safety and Health Administration's HAZWOPER requirements. The Applicant shall ensure that all employees are properly trained in the use and handling of these materials and that each material is accompanied by a material safety data sheet (MSDS) deemed adequate by the CPUC. To avoid unexpected releases of hazardous materials, the Applicant shall employ individuals trained in accordance with the Occupational Safety and Health Administration's HAZWOPER requirements.

HAZ-2 A Hazardous Materials Management/Spill Prevention Plan shall be developed and submitted to the CPUC for review and approval prior to construction. The purpose of the

plan is to provide on-site construction managers, environmental compliance monitors, and regulatory agencies with a detailed description of hazardous materials management, spill prevention, and spill response/cleanup measures associated with the construction of project elements. The primary objective of the plan is to prevent the spill of hazardous materials; the plan shall be given to all contractors working on the project. At least one copy shall be on-site with the construction manager at all times. The plan shall include the following requirements:

- Staging areas where refueling, storage, and maintenance of equipment will take place shall be defined. Such areas shall not be located within 100 feet of drainages or any other body of water, or wetlands or riparian areas, to reduce the potential of contamination by spills.
- During construction activities, equipment shall be maintained and kept in good operating conditions to reduce the likelihood of line breaks and leakage.
- Fluids drained from machinery during services at staging areas shall be collected in leak-proof containers and disposed of at appropriate disposal or recycling facilities.
- No refueling or servicing shall be done without absorbent material (e.g., absorbent pads, mats, socks, pillows, and granules) or drip pans underneath to contain spilled material.
- Spill control and countermeasures shall be defined, including but not limited to employee spill prevention/response training and a description of onsite cleanup equipment (e.g., absorbent pads, mats, socks, granules, etc.) available at staging and construction sites.
- Resource agency notification and documentation procedures shall be defined.

HAZ-3

The Applicant shall prepare a Health and Safety Plan that includes a contingency plan in the event hazardous wastes are encountered. Before site activities may begin, the Applicant shall submit the plan to the CPUC for review and approval, and once the plan is approved, shall send it to each agency with jurisdiction. The Health and Safety Plan, applicable to all excavation activities, shall establish policies and procedures to protect workers and the public from potential hazards posed by hazardous wastes. The plan shall be prepared according to federal and California OSHA regulations for hazardous waste site Health and Safety Plans. This Health and Safety Plan shall also provide for proper storage and/or disposal of any contaminated soils that meet the definition of a hazardous waste. Such a protocol could include off-site treatment of contaminated materials or disposal at an appropriate landfill.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Construction of the Avondale Segment 4 would take place within one-quarter mile of an existing school.

No hazardous long-term emissions would be generated by the proposed project. During construction of the project, project personnel would follow all institutional controls governing the storage, transportation, use, handling, and disposal of hazardous materials. Williams would not locate a staging area near an existing or proposed school (Earnest, 2002). Mitigation Measures **HAZ-1** through **HAZ-3** are recommended to ensure minimal risk of an accidental release of hazardous materials, substances, or wastes, as described in Section 4.8.2(b) above. Therefore, potential impacts to existing schools would be less than significant.

- d. Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

NO IMPACT. The project is not located on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Earnest, 2002). No impact would occur.

- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

NO IMPACT. The Avondale Segment of the proposed project would occur approximately three miles north east of the Yuba County Airport. Construction along the Ostrom Road Segment would occur approximately five miles south of the landing strip at Beale Air Force Base. Neither would result in a safety hazard for people working in the project area, as the project sites are not located within the airport safety zone. Therefore, no impact would occur.

- f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

NO IMPACT. The Avondale Segment of the proposed project would occur approximately three miles north east of the Yuba County Airport. Construction along the Ostrom Road Segment would occur approximately five miles south of the landing strip at Beale Air Force Base. Neither would result in a safety hazard for people working in the project area, as the project sites are not located within the airport safety zone. Therefore, no impact would occur.

- g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The proposed project would involve the operation of heavy machinery in or adjacent to roadways. Emergency response times may be affected in areas where the proposed routes are adjacent to or within road ROWs. However, Mitigation Measure **TRA-2** (see Section 4.16, Transportation and Traffic) has a provision requiring specific measures to ensure that impacts to emergency service providers are less than significant. No additional mitigation measures would be necessary.

- h. Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

NO IMPACT. The proposed project would not be constructed near wildlands and there would be no impact due to exposure of people or structures to a significant risk of loss, injury, or death attributable to wildland fires.

4.9 Hydrology and Water Quality

4.9.1 Setting

As described in the Project Description (Section 3), the proposed project would install fiber optic conduit lines in public and railroad ROWs in three segments located in agricultural and rural community areas of

Yuba County and the City of Biggs in Butte County. According to Figure 3-2, it appears that the Ostrom segment would bore under two watercourses and five other locations listed as sensitive areas. The first watercourse boring would occur approximately 1.5 miles from the western end of this segment. The second watercourse boring would occur near the Bradshaw Road intersection.

As part of the federal Clean Water Act, the U.S. Environmental Protection Agency has established regulations under the National Pollutant Discharge Elimination System (NPDES) program to control discharges to surface waters. The SWRCB regulates and administers the NPDES permitting program in California. The SWRCB regulates discharges of storm water runoff associated with construction activity pursuant to SWRCB Order No. 99-08-DWR, NPDES General Permit No. CA S000002. Construction activities of one acre or more which would not be completed by March 1, 2003, are subject to the permitting requirements (Phase II requirements will not be enforced until March 2003). The NPDES permit requirements include the development and implementation of a SWPPP with appropriate BMPs to minimize the discharge of pollutants from the site. The SWRCB also regulates and administers NPDES permits related to the discharging of pumped groundwater via dewatering. Depending on the Central Valley Regional Water Quality Control Board's (CVRWQCB) decision, dewatering activities related to this project may require a separate NPDES permit. A provision mandated by this permit includes the development of a plan demonstrating that the pumped water would be handled in a sound manner so as not to degrade surface water quality.

4.9.2 Environmental Impacts and Mitigation Measures

a. Would the project violate any water quality standards or waste discharge requirements?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. There is potential for surface runoff to transport unstabilized trench spoils into streams via the roadside drainage ditch, which could result in temporary increases in turbidity and sedimentation in watercourses adjacent to and/or downstream of the project routes. Temporary increases in turbidity or sedimentation could be significant if the rate of sediment loading exceeds the rate of sediment transport in a stream, a frequent occurrence during wet weather. Excessive sediment in the water column (increased turbidity) can result in impacts on aquatic habitat.

Although all wetlands and drainages would be bored, removing riparian vegetation along drainages could weaken streambank structure and increase susceptibility to erosion. Disturbing the geomorphic characteristics and stability of the channel bed and banks may initiate long-term readjustments (chronic erosion) in self-formed alluvial channels.

A potentially significant impact could occur if large amounts of riparian vegetation were removed, if the channel bed and banks on several crossings of one channel or within one watershed were disturbed, or if sensitive crossing sites that have been disturbed mechanically were further disturbed by high-flow events before they are stabilized. Mitigation Measures **WQ-1** and **HAZ-2** would reduce sediment loading to a less than significant level.

As described in Section 4.8.2, small quantities of hazardous materials would be stored, used, and handled during construction. The hazardous materials anticipated to be used are small volumes of petroleum hydrocarbons and their derivatives (e.g., gasoline, hydraulic fluids) required for operation of construction equipment. Accidental spills of these substances could contaminate drainages, soils, wetlands, and other environmentally sensitive areas and water bodies (i.e., areas supporting critical habitat or listed or proposed species). Mitigation Measures **WQ-1** and **HAZ-2** would reduce this impact to a less than significant level.

Directional drilling often requires lubricating slurry to help lubricate the drill bit, prevent the bore tunnel from collapsing, and carry drill cuttings to the surface. The types of slurry used vary depending upon the contractor and the existing subsurface conditions. The slurry mixture could seep to the surface within a stream channel. Seepage can happen if the drilling encounters fractures in the underlying rock and slurry pressures are great enough to allow the material to surface. This impact would be reduced to a less than significant level by implementation of Mitigation Measures **BIO-2** and **WQ-2**, and **HAZ-2**.

There is a potential to encounter groundwater during boring operations and dewatering of bore pits may be necessary. The pumped groundwater may contain suspended sediments or contaminants or may become contaminated via the drilling slurry. Mitigation Measure **WQ-3** would ensure that consultation would occur with the CVRWQCB prior to construction activities; therefore, impacts to surface water quality from groundwater encountered during construction would be less than significant.

WQ-1 The Applicant shall develop and implement Best Management Practices (BMPs) for construction on the Biggs and Avondale segments. For the Ostrom segment where construction-related activities would lead to one acre or more of soil disturbance, a Stormwater Pollution Prevention Plan (SWPPP) shall be prepared to minimize impacts to water quality related to stormwater and non-stormwater discharges. The SWPPP shall include BMPs to control the transport of sediment to streams, measures to promote the recovery of construction areas to preconstruction condition, and avoid the potential for large or chronic spills of hazardous substances. The SWPPP shall also demonstrate compliance with all applicable local and regional erosion and sediment control standards, identification of responsible parties, a detailed construction timeline, and BMPs monitoring and maintenance schedule. The SWPPP shall be provided to the CPUC for review and approval at least 14 days before construction starts.

Examples of BMPs for stormwater and non-stormwater discharges include the following:

- All onsite personnel shall complete a training course on issues related to stormwater and non-stormwater discharges and BMP implementation and monitoring.
- No construction-related materials, wastes, spills or residues shall be discharged from the project.
- The staging of construction materials, equipment, and excavation spoils shall be performed outside of drainages.
- Re-grading and compacting of backfill in trenches and drilling pits to match natural, adjacent site conditions.
- Any hazardous materials, including but not limited to petroleum hydrocarbons and hydraulic fluids, shall be stored in areas with primary and secondary containment.
- Contained spills may then be cleaned using appropriate materials and/or cleaning agents. Waste from spill containment and cleanup shall be properly handled and disposed as hazardous waste in accordance with hazardous waste regulations.
- Protocols shall be developed and include the following: material safety data sheets (MSDS); description of potentially hazardous and non-hazardous materials that could be spilled accidentally during construction (fuels, equipment lubricant, human waste and chemical toilets, and directional drilling slurries); potential spill sources, potential spill causes, proper storage and transport methods, spill containment, spill recovery, agency notification, and responsible parties.
- Excavated or disturbed soil shall be kept within a controlled area surrounded by a perimeter barrier that may entail silt fence, hay bales, straw wattles, or a similarly effective erosion control technique that prevents the transport of sediment from a given stockpile. In addition, all stockpiled material shall be covered or contained in such a way that eliminates offsite runoff and wind related erosion from occurring.

- Upon completion of construction activities, all disturbed areas shall be regarded graded and permanently stabilized.
- Surplus soil shall be transported from the site and disposed of appropriately at approved sites.

WQ-2 The Applicant shall prepare a Frac-out Contingency Plan and submit it to the CPUC for review and approval prior to the start of construction. The plan shall define measures to minimize the potential for directional drilling slurry seeps. The plan shall include the following requirements: require boring crews to strictly monitor drilling fluid pressures; retain containment equipment on-site; monitoring waters downstream of the crossing sites to identify any seeps quickly; immediately stop work if a seep into a stream is detected; immediately implement containment measures; adhere to agency reporting and notification requirements; and identify responsible parties. The plan shall ensure that any agencies restricting actions through the issuance of a permit or other authorization must be informed of the type of directional-drilling slurry to be used during directional drilling operations in order that the selection of the most appropriate slurry can be made.

WQ-3 The Applicant shall consult with a representative from the CVRWQCB prior to any construction activities regarding the proposed project and the potential to encounter groundwater during construction operations. The Applicant shall provide written correspondence to the CPUC regarding the CVRWQB decision. If a separate NPDES permit for pumped groundwater is required, the Applicant shall provide the CPUC copies of the required documentation (per the permit provisions) prior to the start of the specific construction activities that could affect groundwater.

b. *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?*

NO IMPACT. The proposed project consists of the installation of fiber optic cable and conduit through a variety of means. Depth of the cable typically would not exceed 48 inches, except under special circumstances such as boring under rivers or under existing utilities, or when the cable and conduit are inserted in an idle pipeline and the pipeline is greater than 48 inches deep. The project would have no impact on groundwater supplies because the cable installation depth is sufficiently above the typical existing water table elevation. Therefore, no impact would occur.

c. *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on-site or off-site?*

NO IMPACT. No trenching activities would occur within any watercourse. The Avondale segment would cross above a watercourse within the existing road and the Ostrom segment would employ boring to cross below waterways. Therefore, the proposed project would not alter or impact existing drainage patterns through the alteration of a stream or river course, which may lead to substantial erosion and sedimentation.

- d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-site or off-site?**

NO IMPACT. The proposed project would not alter existing drainage patterns through the alteration of a stream, river course, or other area. No trenching activities would occur within any watercourse. The Avondale segment would be trenched above a watercourse within the existing road and the Ostrom segment would employ boring below waterways. Both segments together would disturb approximately 4 acres; however, all disturbed areas would be stabilized. Surface runoff would not increase as a result of the proposed project. Therefore, no impact would occur.

- e. Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems?**

NO IMPACT. All grades would be restored to existing conditions and runoff would drain as sheet flow and be allowed either to percolate or to flow into existing stormwater management structures. Therefore, no impact would occur.

- f. Would the project otherwise substantially degrade water quality?**

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Mitigation Measures **WQ-1** and **WQ-2** would protect water quality during project construction.

- g. Would the project place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

NO IMPACT. The proposed project does not include the construction or placement of housing within floodplains. Therefore, no impact would occur.

- h. Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?**

NO IMPACT. Conduit and cable installation would not affect floodplain capacity because the fiber optic cable would be installed below the ground surface. Areas that would be disturbed during construction would be restored to existing grades. No flood flows would be redirected. Therefore no impact would occur.

- i. Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?**

NO IMPACT. The proposed project would not increase the risk of flooding in any area and does not include levees or dams. People or structures would not be exposed to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. Consequently, no impact would occur.

- j. Would the project contribute to inundation by seiche, tsunami, or mudflow?**

NO IMPACT. By design, the proposed project would not increase the potential for inundation by seiche, tsunami, or mudflow. Consequently, no impact would occur.

4.10 Land Use

4.10.1 Setting

As stated in the Project Description (Section 3), three of the segments of the proposed project would involve new construction. The remaining portions of the project will utilize existing fiber lines and consist of hook-ups among existing facilities.

Neither Yuba County nor the City of Biggs have specific general plan policies or land use regulations that affect construction of the proposed project. However, local government encroachment permits are required. Those permits address the need to comply with traffic management along the public ROW. Other ordinances govern the time when construction is permitted.

The Ostrom segment would be 4.6 miles long. It includes a 900-foot section headed northwest in the UPRR ROW to Ostrom Road, 4.2 miles going eastward along the south edge of Ostrom Road, and a 0.2 miles northeast section along the east edge of South Beale Road. This segment is completely surrounded by cultivated land. A dozen houses are located Ostrom Road toward the west end of the project.

The Avondale segment starts near the UPRR tracks at Hammonton Boulevard, heads northeast for approximately 200 feet and turns northwest along the east edge of Avondale Avenue for about 1,800 feet to Grant Highway. Four homes are located on Avondale Avenue, two of which are on the conduit side of the road. Neither of them have access off Avondale Avenue.

The Biggs segment, a 120-foot boring under the UPRR ROW, is in the City of Biggs. To the east is an agriculture-related industrial facility. Approximately 200 feet to the west is residential development.

4.10.2 Environmental Impacts and Mitigation Measures

a. Would the project physically divide an established community?

NO IMPACT. The proposed project includes the construction and placement of fiber optic cables primarily through rural roads and railroad ROW. A short new segment will also be bored under the UPRR tracks in Biggs. All new construction will be underground. As committed to by the Applicant, all sites will be returned to their original condition on the day of excavation, with completion of restoration no later than the next day (Gillett, 2002). The project would not disrupt or divide any established community. No impacts would occur.

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Local jurisdictions are required by the State of California to prepare general plans identifying goals and policies that will guide development within their respective jurisdictions. Policies and goals regarding the land use resources are addressed in these general plans. The general plans, specific plans, and zoning ordinances of the cities and counties along the proposed alignments would apply to the project.

As the installation of the new fiber optic conduit would largely occur in existing transportation ROWs which are generally exempt from land use zoning, it is unlikely that the project would conflict with the land use designations or zoning described for the project areas in the applicable general plans, specific plans, and/or zoning ordinances.

For this project, the Applicant is required to, and has obtained, encroachment permits from Yuba County and the City of Biggs. The Applicant will also obtain a license from the UPRR for locating its line within the railroad ROW. To that extent, the Applicant has complied with applicable local plans, policies, and regulations, including obtaining necessary local zoning permits and will be required to meet conditions of approval prior to commencing construction activities. Written documentation and evidence of compliance must be provided to the CPUC to ensure that any land use impacts associated with conflicts are reduced to less than significant levels. Implementation of Mitigation Measure **LU-1** would ensure that this would occur.

LU-1 Prior to construction of each segment, Williams shall submit to the CPUC written documentation, including evidence of review by the appropriate public works, planning, and/or community development agency for the applicable jurisdictions. This documentation shall include the following:

- Site plan showing the dimensions and location of the finalized alignment;
- Evidence that the project meets all necessary requirements;
- Evidence of compliance with design standards;
- Copies of any necessary permits or conditions of approval;
- Records of any discretionary decisions made by of the applicable jurisdictions.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

NO IMPACT. The project is not within the boundaries of, nor would it conflict with any habitat conservation or natural community conservation plans. No impact would occur.

4.11 Mineral Resources

4.11.1 Setting

The new construction segments of the proposed project would be installed within already disturbed public road and railroad ROWs. Most of the excavated trench material will be used as backfill on-site. The small remaining amounts excess trench, manhole construction and bore materials will be disposed of in a landfill as appropriate.

4.11.2 Environmental Impacts and Mitigation Measures

- a. *Would the project result in the loss of availability of a known mineral resource classified MRZ-2² by the State Geologist that would be of value to the region and the residents of the State?*

NO IMPACT. None of the land along the project's new construction alignments is classified **MRZ-2²** (California Department of Conservation, 1988). New cable would be installed in improved ROWs where allowed by the landowner or owner of the ROW. The quantities of excess excavated material which could not be used for backfill would be too small to be of any commercial or significant resource value. Therefore, the proposed project would not result in the loss of availability of known mineral resources or of any locally important mineral resource beyond current conditions affecting the ROW within which the cable would be placed. No known mineral resources would be affected. Therefore, no impact would occur.

- b. *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

NO IMPACT. There are no mineral resource recovery sites in the project area, which would be affected by the installation of the project. Therefore, no impact would occur.

4.12 Noise

4.12.1 Setting

Noise Sources and Levels

The proposed conduit installations would occur within or immediately adjacent to public or railroad ROWs in Butte and Yuba Counties, where the noise environment is usually dominated by traffic and/or train noise. Along such areas ambient noise levels vary depending on traffic volumes, nearby highways, average vehicle speed, the percentage of heavy trucks in the vehicle mix, and the frequency of train traffic. Another sound source along Ostrom Road is military aircraft from Beale Air Force Base.

Sensitive Receptors

While the predominant land use along the project's new construction segments is agricultural, there are twelve residences along the west end of the route along Ostrom Road and three houses along Avondale Avenue. Residences also line the west side of the railroad tracks at the Biggs boring site approximately 200 feet from the UPRR ROW.

Regulatory Context

As a general matter, federal and State agencies regulate mobile noise sources, by establishing and enforcing noise standards on vehicle manufacturers. Local agencies regulate stationary noise sources and activities such as construction in order to protect neighboring land uses and the general public's health and welfare. To this end, local governments implement noise-related policies contained in the noise

² Mineral Resource Zone where adequate information indicates that significant mineral resources are present, or that there is a high likelihood for their presence and development should be controlled (California Division of Mines and Geology)

element of their general plans, and adopt noise ordinances that commonly regulate construction noise level and time of operation. Local jurisdictions also enforce the ordinances through such means as permit conditions or police and sheriff oversight.

Few local regulations deal directly with construction noise. There is no noise ordinance in the Butte County Code. The Biggs City Code does not contain any noise limits for construction activities, but the Yuba County General Plan (Volume 1, Chapter 6, Noise) recommends an ambient allowable noise level threshold for low-density residential and agricultural land uses of 50 dB during both the 7 a.m. to 10 p.m. and 10 p.m. to 7 a.m. time periods. The project proponent did not identify any other potentially applicable noise regulations.

Construction would consist primarily of the installation of new underground conduit for fiber optic cable within the public roadway and railroad ROW. Linear construction would proceed at an average rate of 600 feet per day. Directional boring typically proceeds at the rate of 300 feet per day. All directional boring sites are located in agricultural areas, away from any residences.

During the construction period, noise levels generated by project construction would vary depending on the particular type, number, and duration of the use of specific pieces of construction equipment. Equipment used could include backhoes, side-witches, excavators, jackhammers, trucks, pavers, and others. Table 4-4 lists the sound level generated by some of this equipment.

The Applicant has stated that construction activity would be limited to daylight hours between 7 a.m. and 7 p.m., Monday through Friday, when background noise levels and people's tolerance are generally at their highest levels, and similarly on Saturday if locally permitted (Gillett, 2002). Because construction crews are expected to move quickly, construction noise at any one location would typically be audible for only one day or part of one day.

Jackhammers, excavators, and trucks are expected to be the noisiest pieces of equipment used at any construction site, and use of this equipment would dominate the immediate noise environment around the site. Therefore, the assessment of potential noise impacts associated with in-ground conduit and cable installation or other construction activity is based on an estimated worst-case source level of 88 dBA at 50 feet. Noise levels that could occur in the vicinity of cable construction sites based on this source level are summarized in Table 4-5.

There are no noise-generating activities associated with operation of the fiber optic line.

A noise impact is considered significant if project related noise at a noise-sensitive land use or receptor has the potential to typical noise ordinance standards, which are typically 50 dBA at residential receptors. To keep this analysis reasonably conservative, it does not presume that construction activity is exempt from any local regulations.

Table 4-4. Summary of Construction Noise Sources

Equipment	Sound Level at 50 Feet (dBA-Leg)
Backhoe	80
Grader	85
Bulldozer	85
Jackhammer	88

Source: Federal Transit Administration 1995.

4.12.2 Environmental Impacts and Mitigation Measures

a. Would the project expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The project would result in short-term construction noise. Such noise-related impacts are typically regulated on the local level by implementing general plan policies, enforcing noise ordinances, or conditioning approval of construction permits.

As illustrated in Table 4-5, locations within about 2,000 feet of an active construction site have the potential to be exposed to noise in excess of 50 dBA. These noise levels would be above the 50 dB standard identified above. These results suggest that residences or other sensitive receptors within about 2,500 feet of cable routes could be exposed to noise in excess of the identified standards.

Because of the potential for construction noise to be in excess of local standards or to cause noise that is substantially above background sound levels, this impact is considered to be potentially significant. Implementation of Mitigation Measure, **NOI-1**, would reduce this impact to a less than significant level.

NOI-1 When installing and constructing fiber optic cable system, the prime contractor shall employ the following noise-reducing measures:

- Restrict construction activity along routes and at staging areas within 1,000 feet of residences to daytime hours (7 a.m. to 7 p.m.). No construction shall be performed within 3,000 feet of an occupied dwelling unit on Sundays, legal holidays, or between the hours of 7 p.m. and 7 a.m. on other days, unless expressly allowed by a local jurisdiction
- All equipment shall have sound-control devices no less effective than those provided on the original equipment
- No equipment shall have an unmuffled exhaust
- If traffic control devices requiring electrical power were employed within 500 feet of sensitive receptors, the devices shall be battery/solar-powered instead of powered by electrical generators.

As directed by any local jurisdiction, the prime contractor and sub-contractors shall implement appropriate additional noise mitigation measures to comply with the applicable local noise ordinance including, but not limited to, changing the location of stationary construction equipment, shutting off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, or installing acoustic barriers around stationary construction noise sources.

Table 4-5. Estimated Noise in the Vicinity of an Active Construction Site

Distance to Receptor (feet)	Sound Level at Receptor (dBA)
50	88
100	82
200	76
500	69
600	65
800	63
1,000	60
1,500	56
2,000	53
2,500	50
3,000	47
4,000	43
5,280	39
7,500	32

Notes. The following assumptions were used:
 Basic sound level drop-off rate 6.0 dB per doubling of distance
 Molecular absorption coefficient 0.7 dB; per 1,000 feet
 Anomalous excess attenuation 1.0 dB per 1,000 feet
 Reference sound level 85 dBA
 Distance for reference sound level 50 feet

b. Would the project expose persons to or generate excessive groundborne vibration or groundborne noise levels?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. During construction, the project would involve the use of heavy equipment that could cause localized groundborne vibration and noise that could be perceptible at residences or other sensitive uses in the immediate vicinity of the proposed construction sites. Mitigation identified above (NOI-1) would restrict the hours of use of heavy equipment in the vicinity of residences so that localized effects would only occur in the daytime. Because ground borne vibration and noise would be brief (one to three days) at any one location, and mitigation would restrict the impacts to daylight hours, impacts from construction-related groundborne vibration and noise would be less than significant with the recommended mitigation.

Operation and maintenance of the project would not involve potential sources of groundborne vibration or noise. Therefore, no operation-related impacts will occur.

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

NO IMPACT. Long-term operation and maintenance of the project would not introduce any new permanent sources of noise to the ambient environment. Therefore there would not be a substantial permanent increase in ambient noise levels in the project's vicinity over existing levels and no impact would occur.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Construction activities, and some repair and maintenance of the conduit and cable in the future, would result in a temporary or periodic increase in noise. With mitigation identified above (NOI-1), the temporary impact would be reduced to a less than significant level.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise level?

NO IMPACT. The proposed project is not located within an airport land use area or within two miles of a public airport or public use airport.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise?

NO IMPACT. The proposed project is not located in the vicinity of a private airstrip.

4.13 Population and Housing

4.13.1 Setting

The proposed project is located primarily in rural areas of unincorporated portions of Yuba and Butte Counties. Three houses are located along a portion of the Avondale segment, on Hammonton Road near the City of Marysville. Twelve houses line Ostrom Road along the west end of the Ostrom segment. On

the Briggs segment, a residential area is located approximately 200 feet west of the proposed boring under the UPRR tracks.

A summary of key population and housing data for the project area is presented in Table 4-6. The area's population is predominantly white. The 2000 U.S. Census identifies the largest minority population as Hispanic or Latino.

Table 4-6. Population And Housing

	Yuba County	Butte County	City of Marysville	City of Biggs
Population				
Total	60,219	203,171	12,597	3,432
White	65.3%	80.0%	65.8%	75.1%
Hispanic/Latino	17.4%	10.5%	17.8%	20.7%
Housing				
Total units	22,636	85,523	5,119	1,274
Vacancy rate	9.3%	7.0%	6.3%	8.6%

4.13.2 Environmental Impacts and Mitigation Measures

- a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

NO IMPACT. The proposed project is not a form of infrastructure, such as roads, water lines, or sewer lines, which could induce population growth within specific areas. Furthermore, the proposed project would not result in the construction of new housing. The purpose of the project is to construct and place fiber optic cables in county road and railroad right of ways to serve existing demand. The project would not induce substantial population growth and would have no impact on the growth rate or housing of the area.

- b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

NO IMPACT. Because construction would occur in existing, disturbed rights-of way, no housing or people would be displaced as a result of the proposed project, and no impact would occur.

- c. Would the project displace substantial numbers of people necessitating the construction of replacement housing elsewhere?*

NO IMPACT. Because construction would occur in existing, disturbed rights-of way, no housing or people would be displaced as a result of the proposed project, and no impact would occur.

4.14 Public Services

4.14.1 Setting

As described in the Project Description, Section 3.3, the proposed project includes installation of fiber optics conduits, lines, and equipment in largely rural public and railroad ROW, previously disturbed in road or railroad construction. Fire and police protection are provided by are provided by local agencies. Schools are run by local districts. Parks are managed by the Yuba County and City of Biggs. Other public services such as libraries are provided by the County.

4.14.2 Environmental Impacts and Mitigation Measures

- a. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:*

Fire protection?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.

Construction. Fire protection service could be required during project construction in the event of an accident. The likelihood of such an accident is low. Since the fire department is prepared to respond to accidents within their jurisdiction, it is expected that it would be able to adequately respond, if necessary, should a project-related accident occur. In the past, emergency response assistance has also been provided by Beale Air Force Base (Walker, 2002).

Since project construction would involve lane closures along the ROW, it could interfere with emergency response by ambulance, fire, paramedic, and police. Mitigation Measure **TRA-2** (see Section 4.16, Transportation and Traffic) requires the Applicant to develop an Emergency Vehicle Access Plan to ensure that impacts to emergency service providers are less than significant.

Operation. The proposed project would not lead to population growth in the project area. Unlike the expansion of water, sewer, road access and other public infrastructure, once installed and in operation, fiber optics lines do not require public services to be expanded. Therefore, no significant effects on public services would result from the proposed project.

Police Protection?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The proposed project would not have a significant long-term impact on public services such as police protection since it would not cause a significant increase in population or in-migration, as described in Section 4.13 (Population and Housing). Any short-term construction impacts to emergency service providers would be reduced to less than significant levels with the implementation of Mitigation Measure **TRA-2**.

Schools?

NO IMPACT. The proposed project would not have a significant long-term impact on schools because it would not cause a significant increase in population or in-migration, as described in Section 4.13 (Population and Housing). Therefore, the project will not increase any long-term demand on existing

schools in the project area, nor require the construction of new schools. The proposed project would have no impact on schools and no mitigation measures are necessary.

Parks?

NO IMPACT. Since the proposed project would not cause a significant increase in population or in-migration, no increased demand for public parks or park-related services would result. The proposed project would have no impact on parks and no mitigation measures are necessary.

Other Public Facilities?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The proposed project would not have a significant long-term impact on public services such as libraries since it would not cause a significant increase in population or in-migration. Therefore, the proposed project would not increase any long-term demands for existing public services in the project area. Any short-term construction impacts to emergency service providers would be reduced to less than significant levels with the implementation of Mitigation Measure **TRA-2**.

4.15 Recreation

4.15.1 Setting

Recreational facilities in the vicinity of the Ostrom and Avondale segments are managed by the Yuba County Department of Parks and Recreation. The proposed project would follow or cross public and railroad ROW. None of the three construction segments are located near public parks. The proposed conduits would not cross any recreational facilities. No park facilities would be used as construction staging areas.

4.15.2 Environmental Impacts and Mitigation Measures

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

NO IMPACT. The proposed project would not cause a significant increase in population or in-migration, as described in Section 4.13 (Population and Housing) and would, therefore, not result in an increased demand for neighborhood or regional parks or park-related services (EIP, 2002). Also, since no park facilities, including their parking lots, would be used as construction staging areas, the project would not impact access to recreational facilities or cause their physical deterioration. The proposed project would have no impact on parks and no mitigation measures are necessary.

b. Would the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

NO IMPACT. The proposed project does not include recreational facilities, would not result in any increased use of parks or other recreation facilities, and would not increase demand on existing recreational facilities. It would, therefore, not lead to the construction or expansion of any recreational facilities that might have an adverse physical effect of the environment. Therefore, no impact would occur.

- c. Would the project result in permanent and/or temporary impacts, such as possible disruption of recreational activities, affecting the recreational value of existing facilities?*

NO IMPACT. No park facilities would be utilized by the proposed project (Gillett, 2002). The project alignments would not impact park facilities. No impact would occur.

4.16 Transportation and Traffic

4.16.1 Setting

The proposed project involves construction activities in largely rural parts of Yuba and Butte counties. The Avondale segment supports local traffic, while Ostrom Road provides access to other parts of the County. Project construction would add daily arrivals and departures of up to 15 trips for each construction crew and approximately 12 truck trips for hauling equipment and materials and spoils to and from each work site.

Regulatory Context

Cities and counties require encroachment permits for construction in their road ROWs. Specific permit requirements vary from one local jurisdiction to another, but commonly include site-specific traffic management measures designed to avoid or reduce construction-related traffic and transportation impacts to a less than significant level. Railroads require similar approval of construction activities within their ROWs. The UPRR would issue a license to Williams for the proposed project. Both Yuba and Butte counties condition their encroachment permits on complying with Caltrans' "Manual of Traffic Controls" and "Standards Plans for Traffic Control Systems" for traffic management during construction.

4.16.2 Environmental Impacts and Mitigation Measures

- a. Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. At the rate of trenching and conduit installation of 600 feet per day and boring and manhole installation at one to two days each construction-related road encroachments at any one location could last from one day in Biggs to several days along Avondale Avenue and several weeks along Ostrom Road. Up to three to six to eight person crews may work on the project at any one time. Disruption of traffic flows would include lane closures, short-term street closures and the establishment of traffic detours. Traffic congestion impacts at any one location would be localized and short-term.

Because of the rural nature of the Ostrom segment and local nature of Avondale Avenue, the level of short-term project-related traffic would not be significant when added to the existing daily traffic on the affected roadways, and would not result in traffic congestion. Potentially significant traffic-related impacts associated with road encroachments would be reduced to levels that are less than significant, with the implementation of Mitigation Measures **TRA-1**.

TRA-1 Williams shall obtain all necessary local and State road encroachment permits, and railroad encroachment permit (license), prior to the start of construction, and shall comply with all the applicable conditions of approval. As deemed necessary by the applicable

jurisdiction, the road encroachment permits shall require the contractor to prepare a traffic control plan in accordance with professional engineering standards prior to construction. The traffic control plan shall include the following requirements unless the applicable jurisdiction directs otherwise:

- Identify all roadway locations where special construction techniques (e.g., directional drilling or night construction) would be used to minimize impacts to traffic flow.
- Develop circulation and detour plans to minimize impacts to local street circulation. This shall include the use of signing and flagging to guide vehicles through and/or around the construction zone.
- Schedule truck trips outside of peak morning and evening commute hours.
- Limit lane closures during peak hours to the extent possible.
- Use haul routes minimizing truck traffic on local roadways to the extent possible.
- Include detours for bicycles and pedestrians in all areas potentially affected by project construction.
- Install traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones.
- Store construction materials only in designated areas.
- Coordinate with local transit agencies for temporary relocation of routes or bus stops in work zones, as necessary

b. Would the project cause, either individually or cumulatively, a level-of-service standard established by the county congestion management agency for designated roads or highways to be exceeded?

LESS THAN SIGNIFICANT IMPACT. Level-of-Service (LOS) standards are typically established by county congestion management agencies to address long-term traffic increases that result from traffic generating land uses, not temporary conditions such as those caused by short-term construction projects. Therefore, the proposed project would not be affected by, nor affect, the congestion management plans in the project areas, and the LOS of public roads to be exceeded. Impacts would be less than significant.

c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

NO IMPACT. The proposed project primarily involves underground conduit placements and cable pulling, and aerial installations on existing utility poles. The project would not change or impact air traffic patterns or result in air traffic risks. No impacts would occur.

d. Would the project substantially increase hazards because of a design feature or incompatible uses?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Construction activities associated with underground conduit placement and cable pulling within roadways and railroad ROWs could temporarily increase the potential for traffic accidents. Construction-generated trucks on project area roadways would increase the potential for traffic accidents near residences and along the open-road project segments. The potential for accidents would be further increased if construction sites are not safely secured and marked at night and on weekends. Heavy equipment operating adjacent to or within a railroad or road ROW would also increase the risk of accidents. However, compliance with UPRR's encroachment license and implementation of Mitigation Measure **TRA-1** (see above), which requires compliance with all necessary encroachment permit stipulations, would reduce impacts to less than significant levels.

e. Would the project result in inadequate emergency access?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Trenching for new conduits in and alongside public streets could temporarily impede ingress and egress to the eight houses on the south side of Ostrom Road. It could also disrupt access for emergency and other vehicles to these residences for very short periods of time, or one to three days. However, Mitigation Measure **TRA-2**, which includes a requirement to develop an Emergency Vehicle Access Plan, would ensure that impacts are reduced to levels that are less than significant.

TRA-2 Williams shall develop an Emergency Vehicle Access Plan that includes the following:

- Evidence of advanced coordination with emergency service providers, including but not necessarily limited to police departments, fire departments, ambulance services, and paramedic services. Emergency service providers shall be notified of the proposed project locations, nature, timing, and duration of any construction activities, and shall be asked for advice about any road access restrictions that could impact their response effectiveness.
- Project construction schedules and routes designed to avoid restricting movement of emergency vehicles to the best extent possible.
- Provisions to be ready at all times to accommodate emergency vehicles at locations where access to nearby properties may be blocked. Provisions could include the use of platings over excavations, short detours, and/or alternate routes.

f. Would the project result in inadequate parking capacity?

LESS THAN SIGNIFICANT IMPACT. Construction activities would generate a temporary demand for parking spaces for construction worker vehicles. Meeting this demand would be addressed in the Staging Area Plan the Applicant will submit to the CPUC for review and approval (Project Description section 3.3.2). The project's short-term parking needs are not expected to displace or interfere with parking needs in the project area. Implementation of the Staging Area Plan, would ensure that impacts are less than significant.

g. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

NO IMPACT. The proposed project would not conflict with adopted policies that support alternative transportation.

4.17 Utilities and Service Systems

4.17.1 Setting

Utility and service systems for electricity, domestic water, waste and stormwater, solid waste, and natural gas are typically provided and maintained by cities, counties, special districts, water agencies, and private companies. Water, waste and stormwater, and natural gas are usually transmitted via underground pipes or conduits. Increasingly, electricity and telecommunication services are also installed underground. Most of such underground facilities are constructed in public or railroad ROWs.

4.17.2 Environmental Impacts and Mitigation Measures

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. The proposed project would not generate any wastewater during operations. Trenching for conduit installation would not require the use of water. Small amounts of water would be required for boring. Any waste material generated containing water would be dried and disposed of in an approved landfill, as appropriate. There is the potential for shallow groundwater to be encountered, especially during borehole drilling and for it to exceed wastewater requirements of the CVRWQCB. In the event ground water is encountered during construction, Williams would be required to consult the CVRWQCB and obtain the necessary approvals for handling and discharging of that water. Implementation of Mitigation Measure **WQ-3**, which would require consultation with the CVRWQCB prior to the start of construction, would reduce any such potential impacts to a less than significant level.

b. Would the project require, or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

NO IMPACT. The amount of wastewater that would potentially be generated by the proposed project would not require construction of a new wastewater treatment facility or expansion of existing facilities. Wastewater, if encountered, would be generated only briefly during construction (if boring operations encounter groundwater).

c. Would the project require, or result in the construction of, new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

NO IMPACT. The proposed project would not require the construction or expansion of stormwater drainage facilities. No impacts would occur.

d. Would the project have sufficient water supplies available to serve the proposed project from existing entitlements and resources, or would new or expanded entitlements be needed?

NO IMPACT. Water needs of the project would be minor and temporary. Existing water supply would be sufficient to meet those needs. No water would be required for project operation. Therefore, existing water supplies would be sufficient to meet project needs without new or expanded entitlements. No impacts would occur.

- e. Would the project result in a determination by the wastewater treatment provider that serves or may serve the proposed project that it has adequate capacity to serve the proposed project's projected demand in addition to the provider's existing commitments?*

NO IMPACT. Please refer to 4.17.2(a) above. No impacts would occur.

- f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the proposed project's solid waste disposal needs?*

LESS THAN SIGNIFICANT IMPACT. Most of the soil excavated during trenching would be used to refill the excavation, and trench spoils such as paving materials would be returned to the asphalt manufacturer, a local recycler, or transported to an appropriate facility for disposal. The quantity of construction- or installation-related materials, such as fiber spools and other packaging materials would be transported to area landfills and, if disposed of rather than recycled, would be minor relative to the daily volumes handled at those facilities. The amounts disposed of would not substantially affect their remaining capacities. Project operation would not generate solid waste and therefore would not affect existing landfill capacities. Solid waste impacts would be less than significant.

- g. Would the project comply with federal, State, and local statutes and regulations related to solid waste?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. Solid wastes that would be generated by the proposed project include soil displaced by project construction, fiber spools, and other packaging material associated with the conduit and cable pulling. The proposed project would not produce substantial amounts of other solid waste materials. Most of the soil removed during trenching operations would be used to refill the excavation. Pursuant to Mitigation Measure **HAZ-1** (see Section 4.8, Hazards and Hazardous Materials), all hazardous waste materials, which includes contaminated soil, would be handled and disposed of by a licensed waste disposal contractor and transported to an appropriate disposal or recycling facility to meet federal, State, and local requirements. Spools and other packaging for conduit and cable not contaminated would be taken away for reuse, recycling, or disposal at an appropriate landfill. Once construction is complete, the proposed project would not produce solid wastes. Impacts would be less than significant.

4.18 Mandatory Findings of Significance

The CEQA Environmental Checklist presents the following three issues for which a finding of a significant impact would result in requiring preparation of an Environmental Impact Report:

- Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
- Does the project have impacts that are individually limited, but cumulative considerable? (“Cumulative considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?
- Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

As documented in Appendix A (Environmental Checklist), the IS/MND concludes that, with implementation of the mitigation measures included herein, impacts in each of the three categories would be less than significant.