

# Appendix A

---

## Consistency Checklist

[Project Name]

Project-Specific Addendum Checklist to the El  
Dorado County Broadband Fiber Project  
Program Environmental Impact Report

*Prepared for:*

**County of El Dorado, Economic Development Department**

2850 Fairlane Court  
Placerville, CA 95667

*Prepared by:*

**[Name]**

[address]

[address]

[date]

This page intentionally left blank

# TABLE OF CONTENTS

---

<b><u>Section</u></b>	<b><u>Page</u></b>
<b>1.0 INTRODUCTION .....</b>	<b>1</b>
1.1 Document Overview and Purpose .....	1
<b>2.0 PROJECT SPECIFIC ADDENDUM CHECKLIST.....</b>	<b>2</b>
2.1 Information Sheet.....	2
<b>3.0 DETERMINATION .....</b>	<b>3</b>
<b>4.0 EVALUATION OF ENVIRONMENTAL IMPACTS.....</b>	<b>4</b>
I. AESTHETICS.....	5
II. AGRICULTURE AND FORESTRY RESOURCES.....	7
III. AIR QUALITY.....	9
IV. BIOLOGICAL RESOURCES .....	11
V. CULTURAL RESOURCES .....	13
VI. ENERGY .....	15
VII. GEOLOGY AND SOILS .....	16
VIII. GREENHOUSE GAS EMISSIONS .....	18
IX. HAZARDS AND HAZARDOUS MATERIALS.....	19
X. HYDROLOGY AND WATER QUALITY.....	21
XI. LAND USE AND PLANNING.....	23
XII. MINERAL RESOURCES .....	24
XIII. NOISE .....	25
XIV. POPULATION AND HOUSING .....	27
XV. PUBLIC SERVICES.....	28
XVI. RECREATION.....	29
XVII. TRANSPORTATION .....	30
XVIII. TRIBAL CULTURAL RESOURCES .....	32
XIX. UTILITIES AND SERVICE SYSTEMS .....	34
XX. WILDFIRE.....	36
<b>5.0 PREPARERS.....</b>	<b>38</b>
<b>6.0 REFERENCES .....</b>	<b>38</b>

# TABLE OF CONTENTS (cont.)

---

## LIST OF APPENDICES

- A Title of Appendix A
- B Title of Appendix B
- C Title of Appendix C

## LIST OF FIGURES

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Follows Page</u></b>
1	Regional Location.....	X
2	Project Location .....	X
3	Site Plan .....	X

## LIST OF TABLES

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Page</u></b>
1	Table Title.....	X
2	Table Title.....	X

# ACRONYMS AND ABBREVIATIONS

---

Include all acronyms and abbreviations.

# 1.0 INTRODUCTION

## 1.1 DOCUMENT OVERVIEW AND PURPOSE

The El Dorado County Board of Supervisors (BOS) certified the Program Environmental Impact Report (PEIR) for the El Dorado County Broadband Fiber Project (State Clearinghouse No. 2024081255). The PEIR evaluated the installation of fiber optic conduit either underground in buried conduits, overhead on existing or newly constructed utility pole lines, or in a combination of both throughout the County of El Dorado (County). The PEIR was prepared to meet the requirements as defined in the California Environmental Quality Act (CEQA) Guidelines Section 15168(c) for streamlining later activities. In accordance with Section 15168 of the CEQA Guidelines, a PEIR may be prepared on a series of actions that can be characterized as one large project and are related to, among other things, the issuance of general criteria to govern the conduct of a continuing program or individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects that can be mitigated in similar ways.

This project specific addendum (PSA) checklist process was designed during the PEIR preparation for use by internet service providers (ISP) to streamline the environmental review process for individual broadband projects within the County. This PSA checklist is a modified Appendix G Environmental Checklist Form, pursuant to CEQA Guidelines Section 15162, and is used to determine whether an individual fiber project site and activities qualify as a later activity within the scope of the analysis in the PEIR (CEQA Guidelines Section 15168[c]).

If a subsequent project would have effects that were not examined in the El Dorado County Broadband Fiber Project PEIR, an Initial Study may be prepared to determine the appropriate level of environmental review. If another environmental document is needed, whether it is a notice of exemption (NOE), negative declaration (ND), mitigated negative declaration (MND), or environmental impact report (EIR), the PEIR can be used to simplify the task of preparing the subsequent environmental document, as indicated in CEQA Guidelines Section 15168(d).

## 2.0 PROJECT SPECIFIC ADDENDUM CHECKLIST

### 2.1 INFORMATION SHEET

1. Project title: Project Title
2. Lead agency name and address: Lead Agency, Address
3. Contact person and phone number: Contact  
Phone
4. Project location: Location
5. Project sponsor's name and address: If other than #2
6. General plan designation: General plan designation
7. Zoning: Zoning

8. Description of project:

Project description.

9. Surrounding land uses and setting:

Description of surrounding land uses.

10. Required Actions

Agency approvals and/or permits.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Description of consultation process.



### 3.0 DETERMINATION

On the basis of this project specific addendum checklist and the substantial evidence supporting it:

- I find that all of the effects of the proposed project (a) have been covered in the El Dorado County Broadband Fiber Project PEIR, and (b) all applicable mitigation measures identified in the El Dorado County Broadband Fiber Project PEIR will be implemented. The proposed project is, therefore, **WITHIN THE SCOPE** of the El Dorado County Broadband Fiber Project PEIR. **NO ADDITIONAL CEQA DOCUMENTATION** is required.
- I find that the proposed project will have effects that were not covered in the El Dorado County Broadband Fiber Project PEIR. These effects are less than significant without any mitigation beyond what is already required pursuant to the El Dorado County Broadband Fiber Project PEIR. A **NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project will have effects that were not covered in the El Dorado County Broadband Fiber Project PEIR or will have effects that are substantially more severe than those covered in the El Dorado County Broadband Fiber Project PEIR. Although these effects may be significant in the absence of additional mitigation beyond the El Dorado County Broadband Fiber Project PEIR's measures, revisions to the proposed project or additional mitigation measures have been agreed to by the project proponent that would avoid or reduce the effects so that clearly no significant effects would occur. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project will have significant environmental effects that are (a) new and were not covered in the El Dorado County Broadband Fiber Project PEIR and/or (b) substantially more severe than those covered in the El Dorado County Broadband Fiber Project PEIR. Because one or more effects may be significant and cannot be clearly mitigated to less than significant, an **ENVIRONMENTAL IMPACT REPORT** will be prepared.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Agency

## 4.0 EVALUATION OF ENVIRONMENTAL IMPACTS

1. Refer to the applicable resource analysis section in the El Dorado County Broadband Fiber Project PEIR for relevant information on each environmental topic.
2. A brief explanation is required for each impact question, including impacts that have been identified in the PEIR as well as any “new impacts”, if applicable.
3. The discussion of each impact question identified in the PEIR that is also applicable to the proposed treatment project should generally include the following information:
  - Briefly describe the impact of the proposed project.
  - Summarize the impact as it was presented in the PEIR, including a statement that the impact is covered in the PEIR.
  - Provide evidence that (explain why) the project impact is covered in PEIR, considering whether the proposed project is consistent with the activities addressed in the PEIR.
  - Identify Mitigation Measures (MM) from the PEIR that are applicable to the project.
  - (If applicable) Explain why the impact significance in the PSA checklist is different than that found in the PEIR; substantiate the different (new) significance conclusion.
  - (If applicable) Explain why MM identified for this impact in PEIR do not apply to this project. This circumstance may exist where a potentially significant impact was identified in the PEIR, but the impact severity would be less for the project, or the MM does not otherwise apply.
4. If the project proponent has determined that a new impact would occur, then the PSA checklist must indicate whether the new impact is potentially significant, less than significant with mitigation, or less than significant without the need for mitigation.
5. “Potentially Significant” is appropriate if there is substantial evidence that a new impact may be significant. If there are one or more “Potentially Significant” new impacts identified, or if any impact would constitute a substantially more severe significant impact than was covered in the PEIR, an EIR is required unless one or more mitigation measures incorporated into the project would mitigate the effects to a point where clearly no significant effect on the environment would occur, in which case an MND would be appropriate. An ND could be prepared, if the new impact would be less than significant, or MND, if the new impact could be clearly mitigated to less than significant. The analysis of any new impact to support adoption of an ND or MND, along with the analysis of impacts that are within the scope, would be documented in the PSA checklist. If a later EIR is prepared, it could be limited in its scope to the new significant impact(s) or substantially more severe significant impact(s), with the remainder of the impacts that are within the scope of the PEIR being documented in the PSA checklist and attached to the EIR as an appendix. When preparing any environmental document, the environmental analysis should incorporate by reference pertinent portions of the analysis from the County of El Dorado Broadband Fiber Project PEIR and focus the environmental analysis solely on issues that were not addressed in the El Dorado County Broadband Fiber Project PEIR.
6. Project proponents should incorporate references to information sources for potential impacts.

## I. AESTHETICS

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact AES-1: Have a substantial adverse effect on a scenic vista?	PS	Impact AES-1, pp. 4.1-13 – 4.1-14				
Impact AES-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	PS	Impact AES-2, pp. 4.1-15 – 4.1-16				
Impact AES-3: In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings?	LTS	Impact AES-3, pp. 4.1-16 – 4.1-17				
Impact AES-4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	LTS	Impact AES-4, pp. 4.1-18				

<sup>1</sup>PS = Potentially significant impact. LTS = Less than significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Aesthetic Impacts:</b> Would the project result in other impacts to aesthetics that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Discussion

#### Impact AES-1

#### Impact AES-2

#### Impact AES-3

#### Impact AES-4

## **New Aesthetic Impacts**

## II. AGRICULTURE AND FORESTRY RESOURCES

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact AG-1: 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?	LTS	Impact AG-1, pp. 4.2-10 – 4.2-11				
Impact AG-2: Conflict with existing zoning for agricultural use, or a Williamson Act contract?	LTS	Impact AG-2, pp. 4.2-11				
Impact AG-3: Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	LTS	Impact AG-3, pp. 4.2-11 – 4.2-12				
Impact AG-4: Result in the loss of forest land or conversion of forest land to non-forest use?	LTS	Impact AG-4, pp. 4.2-12				
Impact AG-5: Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non- forest use?	LTS	Impact AG-5, pp. 4.2-12				

<sup>1</sup>LTS = Less than significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Agriculture and Forestry Resources Impacts:</b> Would the project result in other impacts to agriculture and forestry that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion**

**Impact AG-1**

**Impact AG-2**

**Impact AG-3**

**Impact AG-4**

**Impact AG-5**

**New Agriculture and Forestry Resource Impacts**

### III. AIR QUALITY

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact AQ-1: Conflict with or obstruct implementation of the applicable air quality plan?	LTS	Impact AQ-1, pp. 4.3-16				
Impact AQ-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?	PS	Impact AQ-2, pp. 4.3-16 – 4.3-18				
Impact AQ-3: Expose sensitive receptors to substantial pollutant concentrations?	PS	Impact AQ-3, pp. 4.3-18 – 4.3-20				
Impact AQ-4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	LTS	Impact AQ-4, pp. 4.3-20				

<sup>1</sup>LTS = Less than significant impact. PS = Potentially significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Air Quality Impacts:</b> Would the project result in other impacts to air quality that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion**

**Impact AQ-1**

**Impact AQ-2**

**Impact AQ-3**

**Impact AQ-4**

## **New Air Quality Impacts**



## IV. BIOLOGICAL RESOURCES

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact BIO-1: 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 CDFW or USFWS?	PS	Impact BIO-1, pp. 4.4-22 – 4.4-23				
Impact BIO-2: Have a substantial adverse effect of any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS?	PS	Impact BIO-2, pp. 4.4-23 – 4.4-24				
Impact BIO-3: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	PS	Impact BIO-3, pp. 4.4-24 – 4.4-25				
Impact BIO-4: 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?	PS	Impact BIO-4, pp. 4.4-24 – 4.4-25				
Impact BIO-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	PS	Impact BIO-5, pp. 4.4-25				
Impact BIO-6: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	NI	Impact BIO-6, pp. 4.4-25				

<sup>1</sup>PS = Potentially significant impact. NI = No impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Biological Resources Impacts:</b> Would the project result in other impacts to biological resources that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion**

**Impact BIO-1**

**Impact BIO-2**

**Impact BIO-3**

**Impact BIO-4**

**Impact BIO-5**

**Impact BIO-6**

**New Biological Resource Impacts**

## V. CULTURAL RESOURCES

Impact in the PEIR			Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR				
<b>Would the project:</b>						
Impact CUL-1: Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	LTS	Impact CUL-1, pp. 4.5-18				
Impact CUL-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	PS	Impact CUL-2, pp. 4.5-18 – 4.5-20				
Impact CUL-3: Cause a substantial adverse change in the significance of archaeological cultural resources that are accidentally discovered during project construction?	PS	Impact CUL-3, pp. 4.5-20 – 4.5-21				
Impact CUL-4: Disturb any human remains, including those interred outside of formal cemeteries?	PS	Impact CUL-4, pp. 4.5-21				

<sup>1</sup>LTS = Less than significant impact. PS = Potentially significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Cultural Resource Impacts:</b> Would the project result in other impacts to cultural resources that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Discussion

#### Impact CUL-1

#### Impact CUL-2

#### Impact CUL-3

#### Impact CUL-4

## **New Cultural Resource Impacts**

## VI. ENERGY

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact EN-1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	LTS	Impact EN-1, pp. 4.6-5 – 4.6-6				
Impact EN-2: Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	LTS	Impact EN-2, pp. 4.6-6				

<sup>1</sup>LTS = Less than significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Energy Impacts:</b> Would the project result in other impacts to energy that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion		
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>		
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

### Discussion

#### Impact EN-1

#### Impact EN-2

#### **New Energy Impacts**

## VII. GEOLOGY AND SOILS

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (i) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; (ii) strong seismic ground shaking; (iii) seismic-related ground failure, including liquefaction; or (iv) landslides?	LTS	Impact GEO-1, pp. 4.7-12				
Impact GEO-2: Result in substantial soil erosion or the loss of topsoil?	LTS	Impact GEO-2, pp. 4.7-12 – 4.7-13				
Impact GEO-3: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in the on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	LTS	Impact GEO-3, pp. 4.7-13 – 4.7-14				
Impact GEO-4: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	LTS	Impact GEO-4, pp. 4.7-14				
Impact GEO-5: Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	NI	Impact GEO-5, pp. 4.7-14				
Impact GEO-6: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	LTS	Impact GEO-6, pp. 4.7-15 – 4.7.16				

<sup>1</sup>LTS = Less than significant impact. NI = No impact. PS = Potentially significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Geology and Soils Impacts:</b> Would the project result in other impacts to geology and soils that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion**

**Impact GEO-1**

**Impact GEO-2**

**Impact GEO-3**

**Impact GEO-4**

**Impact GEO-5**

**Impact GEO-6**

**New Geology and Soils Impacts**

### VIII. GREENHOUSE GAS EMISSIONS

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>1</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?	LTS	Impact GHG-1, pp. 4.8-11 – 4.8-12				
Impact GHG-2: Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?	LTS	Impact GHG-2, pp. 4.8-12				

<sup>1</sup>LTS = Less than significant impact

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New GHG Emissions Impacts:</b> Would the project result in other impacts to GHG emissions that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion**

**Impact GHG-1**

**Impact GHG-2**

**New Impacts Related to GHG Emissions**



## IX. HAZARDS AND HAZARDOUS MATERIALS

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact HAZ-1: Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials?	LTS	Impact HAZ-1, pp. 4.9-25 – 4.9-26				
Impact HAZ-2: 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?	PS	Impact HAZ-2, pp. 4.9-26 – 4.9-28				
Impact HAZ-3: Emit hazardous emissions or require handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	PS	Impact HAZ-3, pp. 4.9-28				
Impact HAZ-4: Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Section 65962.5 of the California Government Code and, as a result, would create a significant hazard to the public or the environment?	PS	Impact HAZ-4, pp. 4.9-28 – 4.9-29				
Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	LTS	Impact HAZ-5, pp. 4.9-29 – 4.9-30				
Impact HAZ-6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	LTS	Impact HAZ-6, pp. 4.9-30 – 4.9-32				
Impact HAZ-7: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	LTS	Impact HAZ-7, pp. 4.9-32 – 4.9-33				

<sup>1</sup>LTS = Less than significant impact. PS = Potentially significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Hazards and Hazardous Materials Impacts:</b> Would the project result in other impacts related to hazards and hazardous materials that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion**

**Impact HAZ-1**

**Impact HAZ-2**

**Impact HAZ-3**

**Impact HAZ-4**

**Impact HAZ-5**

**Impact HAZ-6**

**Impact HAZ-7**

**New Hazards and Hazardous Materials Impacts**

## X. HYDROLOGY AND WATER QUALITY

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact HYD-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	LTS	Impact HYD-1, pp. 4.10-20 – 4.10-21				
Impact HYD-2: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	LTS	Impact HYD-2, pp. 4.10-21 – 4.10-22				
Impact HYD-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows?	LTS	Impact HYD-3, pp. 4.10-22 – 4.10-23				
Impact HYD-4: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	LTS	Impact HYD-4, pp. 4.10-24				
Impact HYD-5: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	LTS	Impact HYD-5, pp. 4.10-24 – 4.10-25				

<sup>1</sup>LTS = Less than significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Hydrology and Water Quality Impacts:</b> Would the project result in other impacts to hydrology and water quality that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
---	------------------------------	-----------------------------	--

	Potentially Significant	Less Than Significant with Mitigation Incorporated	Less than Significant
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion**

**Impact HYD-1**

**Impact HYD-2**

**Impact HYD-3**

**Impact HYD-4**

**Impact HYD-5**

**New Hydrology and Water Quality Impacts**

## XI. LAND USE AND PLANNING

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact LUP-1: Physically divide an established community?	LTS	Impact LUP-1, pp. 4.11-8				
Impact LUP-2: Cause significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	LTS	Impact LUP-2, 4.11-9				

<sup>1</sup>LTS = Less than significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Land Use and Planning Impacts:</b> Would the project result in other impacts to land use and planning that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Discussion

#### Impact LUP-1

#### Impact LUP-2

#### **New Land Use and Planning Impacts**

## XII. MINERAL RESOURCES

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact MIN-1: Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	LTS	Impact MIN-1, pp. 4.12-5				
Impact MIN-2: 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?	LTS	Impact MIN-1, pp. 4.12-5				

<sup>1</sup>LTS = Less than significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Mineral Resources Impacts:</b> Would the project result in other impacts to mineral resources that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Discussion

#### Impact MIN-1

#### Impact MIN -2

#### **New Mineral Resources Impacts**

### XIII. NOISE

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact NOI-1: Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	PS	Impact NOI-1, pp. 4.13-15 – 4.13-17				
Impact NOI-2: Result in generation of excessive groundborne vibration or groundborne noise levels?	PS	Impact NOI-2, pp. 4.13-17 – 4.13-18				
Impact NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	LTS	Impact NOI-3, pp. 4.13-18				

<sup>1</sup>PS = Potentially significant impact. LTS = Less than significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Noise Impacts:</b> Would the project result in other noise-related impacts that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion**

**Impact NOI-1**

**Impact NOI-2**

**Impact NOI-3**

## **New Noise Impacts**



### XIV. POPULATION AND HOUSING

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact POP-1: Induce substantial unplanned 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)?	LTS	Impact POP-1, pp. 4.14-13				
Impact POP-2: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	NI	Impact POP-2, pp. 4.14-13 – 4.14-14				

<sup>1</sup>LTS = Less than significant impact. NI = No impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Population and Housing Impacts:</b> Would the project result in other impacts to population and housing that are not evaluated in the EI Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion**

**Impact POP-1**

**Impact POP-2**

**New Population and Housing Impacts**

## XV. PUBLIC SERVICES

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact PS-1: 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, police protection, schools, parks, or other public facilities?	LTS	Impact PS-1, pp. 4.15-18 – 4.15-20				

<sup>1</sup>LTS = Less than significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Public Service Impacts:</b> Would the project result in other impacts to public services that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Discussion

#### Impact PS-1

#### **New Public Services Impacts**

## XVI. RECREATION

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact REC-1: 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?	NI	Impact REC-1, pp. 4.16-12				
Impact REC-2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	NI	Impact REC-2, pp. 4.16-12				

<sup>1</sup>NI = No impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Recreation Impacts:</b> Would the project result in other impacts to recreation that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Discussion

#### Impact REC-1

#### Impact REC-2

#### **New Recreation Impacts**

## XVII. TRANSPORTATION

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	PS	Impact TRA-1, pp. 4.17-17 – 4.17-19				
TRA-2: Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	LTS	Impact TRA-2, pp. 4.17-19 – 4.17-20				
TRA-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	PS	Impact TRA-3, pp. 4.17-20 – 4.17-21				
TRA-4: Result in inadequate emergency access?	PS	Impact TRA-4, pp. 4.17-21 – 4.17-22				

<sup>1</sup>LTS = Less than significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Transportation Impacts:</b> Would the project result in other impacts to transportation that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Discussion

#### Impact TRA-1

#### Impact TRA-2

#### Impact TRA-3

#### Impact TRA-4

## **New Transportation Impacts**

### XVIII. TRIBAL CULTURAL RESOURCES

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact TCR-1: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	PS	Impact TCR-1, pp. 4.18-12 – 4.18-13				
TCR-2: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe	PS	Impact TCR-2, pp. 4.18-13 – 4.18-14				
Impact TCR-3: Cause a substantial adverse change in the significance of a tribal cultural resource inadvertently discovered during construction?	PS	Impact TCR-3, pp. 4.11-10				

<sup>1</sup>PS = Potentially significant impact.

<sup>2</sup>NA = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Tribal Cultural Resource Impacts:</b> Would the project result in other impacts to tribal cultural resources that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion**

**Impact TCR-1**

**Impact TCR-2**

**Impact TCR-3**

**New Tribal Cultural Resource Impacts**

## XIX. UTILITIES AND SERVICE SYSTEMS

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
Impact UTL-1: Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	LTS	Impact UTL-1, pp. 4.19-14 – 4.19-15				
Impact UTL-2: Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	LTS	Impact UTL-2, pp. 4.19-15 – 4.19-16				
UTL-3: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	LTS	Impact UTL-3, pp. 4.19-16				
UTL-4: Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	LTS	Impact UTL-4, pp. 4.19-16 – 4.19-18				
UTL-5: Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	LTS	Impact UTL-5, pp. 4.19-16 – 4.19-18				

<sup>1</sup>LTS = Less than significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.



<b>New Utilities and Service System Impacts:</b> Would the project result in other impacts to utilities and service systems that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion**

**Impact UTL-1**

**Impact UTL-2**

**Impact UTL-3**

**Impact UTL-4**

**New Impacts to Utilities and Service Systems**

## XX. WILDFIRE

Impact in the PEIR						
Environmental Impact Covered In the PEIR	Identify Impact Significance in the PEIR <sup>1</sup>	Identify Location of Impact Analysis in the PEIR	Is this Impact Within the Scope of the PEIR?	List MMs Applicable to the Project <sup>2</sup>	Identify Impact Significance for Project	Would this be a Substantially More Severe Significant Impact than Identified in the PEIR?
<b>Would the project:</b>						
FIRE-1: Substantially impair an adopted emergency response plan or emergency evacuation plan?	PS	Impact FIRE-1, pp. 4.20-17 – 4.20-18				
FIRE-2: Due to slope, prevailing winds, and other factors, the project would not exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	LTS	Impact FIRE-2, pp. 4.20-19				
FIRE-3: Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	LTS	Impact FIRE-3, pp. 4.20-19 – 4.20-20				
FIRE-4: Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	LTS	Impact FIRE-4, pp. 4.20-20				

<sup>1</sup>LTS = Less than significant impact.

<sup>2</sup>N/A = not applicable; there are no MMs identified in the PEIR for this impact. None = there are MMs identified in the PEIR for this impact, but none are applicable to the project.

<b>New Wildfire Impacts:</b> Would the project result in other impacts related to wildfire that are not evaluated in the El Dorado County Broadband Fiber Project PEIR?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, complete row(s) below and discussion
	<b>Potentially Significant</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less than Significant</b>
[identify new impact here, if applicable; add rows as needed]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Discussion

#### Impact FIRE-1

#### Impact FIRE-2

**Impact FIRE-3**

**Impact FIRE-4**

**New Impacts to Wildfire**

## 5.0 PREPARERS

List of Preparers

## 6.0 REFERENCES

References follow the “name-year” sequence of the Council of Science Editors (CSE) style:  
[http://writing.wisc.edu/Handbook/DocCSE\\_NameYear.html#examples](http://writing.wisc.edu/Handbook/DocCSE_NameYear.html#examples).

# Appendix B

---

NEPA Environmental Assessment



# Environmental Assessment

Department of  
Commerce

National  
Telecommunications  
and  
Communications  
Service

March 2025

## El Dorado County Broadband Fiber Project

El Dorado County, California

For Information Contact:  
El Dorado County Economic  
Development Department  
2850 Fairlane Court  
Placerville CA 95667

# Table of Contents

1.0 Executive Summary ..... 1

2.0 Purpose and Need ..... 11

3.0 Description of Proposed Action and Alternatives ..... 12

    3.1 Introduction ..... 12

    3.2 Proposed Action ..... 12

    3.3 No Action Alternative ..... 14

    3.4 Alternatives ..... 15

    3.5 Alternatives Considered but Eliminated from Further Discussion ..... 16

4.0 Description of the Affected Environment ..... 16

    4.1 Noise ..... 16

    4.2 Air Quality ..... 16

    4.3 Geology and Soils ..... 17

    4.4 Water Resources ..... 18

    4.5 Biological Resources ..... 21

    4.6 Historic and Cultural Resources ..... 23

    4.7 Aesthetic and Visual Resources ..... 28

    4.8 Land Use ..... 29

    4.9 Infrastructure ..... 29

    4.10 Socioeconomic Resources ..... 31

    4.11 Human Health and Safety ..... 32

5.0 Analysis of Environmental Impacts ..... 33

    5.1 Noise ..... 33

    5.2 Air Quality ..... 35

    5.3 Geology and Soils ..... 36

    5.4 Water Resources ..... 37

    5.5 Biological Resources ..... 38

    5.6 Historic and Cultural Resources ..... 39

    5.7 Aesthetic and Visual Resources ..... 42

    5.8 Land Use ..... 43

    5.9 Infrastructure ..... 44

    5.10 Socioeconomic Resources ..... 44

    5.11 Human Health and Safety ..... 45

    5.12 Cumulative Impacts ..... 47

6.0 Applicable Environmental Permits and Regulatory Requirements ..... 59

7.0 References ..... 63

## List of Tables

Table 1: Environmental Analysis Summary.....	3
Table 2: Biological Communities in El Dorado County.....	21
Table 3: El Dorado County Cumulative Projects List.....	47
Table 4: Comparison of the Potential Environmental Impacts by Alternative .....	51
Table 5: Potential Applicable Statutory, Regulatory, and Other Requirements.....	59

## List of Figures

- Figure 1: Project Location Map
- Figure 2: Asbestos Review Areas within the County
- Figure 3: State Scenic Highways and Scenic Vistas Map

## List of Appendices

- Appendix A – Figures
- Appendix B – List of Preparers



---

## 1.0 Executive Summary

### Introduction

El Dorado County (County) is proposing to expand access to fiber optic broadband technology throughout the unincorporated areas and incorporated cities in the County. The proposed El Dorado County Broadband Fiber Project, or hereby referred to as the Proposed Action, would allow for the installation of broadband infrastructure within the typical roadway cross-section within the unincorporated areas of the County, the incorporated cities of Placerville and South Lake Tahoe, or the California Department of Transportation's (Caltrans') public rights-of-way (ROW). However, broadband infrastructure could also be constructed on private land and federal land and could connect to existing conduit or utility poles located within public or private utility easements. The future location of the broadband infrastructure would primarily focus on areas of the County that are currently unserved or underserved. The exact alignment of future broadband infrastructure is unknown at this time and would be based on such considerations as construction feasibility, local preference, and/or locations of sensitive environmental resources.

### Background

Broadband internet access allows users to access the internet and internet-related services at significantly higher speeds than those available through "dial-up" services (FCC 2024). Broadband provides high-speed internet access via multiple types of technologies, including fiber optics, wireless, cable modem, digital subscriber line (DSL), broadband over powerlines (BPL), and satellite. The Proposed Action would utilize fiber optic technology that converts light electrical signals and sends the light through transparent glass fibers about the diameter of a human hair (FCC 2024). Fiber optic technology transmits data at speeds far exceeding current DSL or cable modem speeds.

Per the State of California's definition, areas with less than existing 25/3 megabits per second (Mbps) are considered "unserved" and areas with less than existing 100/20 Mbps are considered "underserved." These unserved, and underserved populations in California are missing out on what is now seen as a critical utility to maintaining a basic quality of life. While some areas of the County have sufficient internet speeds, greater than the existing 100/20 Mbps, for daily work and home life, there are still large portions of the County with no coverage or coverage so slow that it has become prohibitive to perform daily, essential tasks. Providing broadband internet in the County has been challenging for several reasons. Primarily, the topography and geography of the County present physical barriers to broadband connectivity. Subsurface rock throughout the County is difficult and expensive to trench while dense forests, hills, and canyons may obstruct the sight lines needed for wireless technology. Finally, the County is rural in nature and its low population densities make attracting market-rate broadband infrastructure investment cost prohibitive.

### Alternatives

#### *No Action Alternative*

This alternative represents a possible scenario that could occur if the Proposed Action is not approved. If the Proposed Action is other than a land use or regulatory plan (for example, a development project on identifiable property), the "no action" alternative is the circumstance under which the Proposed Action

---

does not proceed. Under the No Action Alternative, no actions would be taken to expand broadband availability in El Dorado County, and the service area would remain unchanged from existing conditions. Even though the No Action Alternative would not meet the objectives, it is evaluated in this Draft Environmental Assessment (EA). Although it is acknowledged that with the No Action Alternative, there would be no discretionary action by El Dorado County, and thus no impact, for purposes of comparison with the other action alternatives, conclusions for each technical area are characterized as “impacts” that are greater, similar, or less, to describe conditions that are worse than, similar to, or better than those of the Proposed Action.

#### *Aerial Installation Only Alternative*

This alternative would include only individual fiber projects that install aboveground fiber optic line that would utilize new or existing utility poles. No underground fiber optic line or new conduit would be installed under this alternative. This alternative was considered because it would avoid or reduce potential impacts that may be associated with underground installation of new fiber optic line or new conduit, such as construction impacts associated with horizontal directional drilling, plowing, trenching, micro trenching, line installation, and/or pavement repair. Some areas of the County are known to contain naturally occurring asbestos (NOA) and aurally deposited lead (ADL); the minimized ground disturbance under aerial installation methods may reduce the potential risk of exposure to hazardous materials. The aerial installation of fiber optic line would also be more feasible for long distance connections, such as in rural areas of the County.

The addition of new utility poles may not be feasible in some locations in the County due to the existing terrain and rocky subsurface conditions that would make it difficult to reach the boring depth required for utility poles, which would leave service gaps in those locations. Further, aerial installation may not be feasible in some densely forested and mountainous areas of the County, which may prevent the aerial stringing of fiber optic line or the installation of new utility poles. Aerial fiber optic line also typically requires more frequent maintenance, as compared to underground fiber optic line. Additionally, this alternative may result in increased impacts to aesthetics and visual resources associated with the construction of new utility poles within the viewshed of scenic vistas or U.S. Highway (U.S.) 50, State Route (SR) 89, and SR 88, portions of which are designated State Scenic Highways within the County.

#### *Underground Installation Only Alternative*

This alternative would include individual fiber projects that would only install underground fiber optic lines and would utilize new or existing underground conduit. No aboveground fiber optic line or new utility poles would be installed under this alternative. This alternative was considered because it would avoid or reduce potential impacts that would be associated with aboveground installation of fiber optic line, including impacts to aesthetics and visual resources associated with the construction of new utility poles within the viewsheds of scenic vistas or U.S. 50, SR 89, and/or SR 88, portions of which are designated State Scenic Highways within the County. Additionally, this alternative would be more feasible in certain areas of the County, such as densely forested or mountainous areas that would prevent the aerial stringing of fiber optic line or the installation of new utility poles. Lastly, the underground installation of fiber optic line typically requires less frequent maintenance due to fewer disturbances as compared to aerial fiber optic line.

The installation of underground fiber optic lines typically requires more ground disturbance and longer construction periods as compared to aerial installation. Increased construction-related impacts could

occur due to the increased ground disturbance required for installation, including horizontal directional drilling, plowing, trenching, micro trenching, and/or line installation. Under this alternative, underground fiber optic lines could be constructed in areas that have existing buried utilities that could contain hazardous waste. Additionally, some areas of the County are known to contain NOA and ADL; the increased ground disturbance resulting from underground installation methods may increase the risk of exposure to these hazardous substances. Depending on the prevailing terrain and geological conditions, including bedrock near the surface, it may not be feasible to install underground infrastructure in some parts of the County.

*Use of Existing Infrastructure Alternative*

The Use of Existing Infrastructure Alternative would include individual fiber projects that install fiber optic line in existing fiber-specific conduit and/or along existing utility poles. Under this alternative, no new utility poles or underground conduit would be installed. This alternative was considered because it would avoid or reduce most impacts associated with the Proposed Action, as outlined in the program EIR, as fewer individual fiber projects would be implemented, resulting in less construction and ground disturbance. This alternative would avoid impacts to aesthetic and visual resources, because the stringing of aerial fiber optic line would occur along existing utility poles, which would not introduce new vertical features within the viewshed of scenic vistas or State Scenic Highways in the County. However, this alternative would not meet the basic objectives associated with providing a reliable system of broadband communications in El Dorado County, because it would not provide for the expansion of broadband infrastructure into portions of the service area that do not already include sufficient conduit, utility poles, and/or supporting infrastructure.

Impact Analysis

The Proposed Action does not have the potential to generate significant environmental impacts. Table 1 below summarizes the conclusions of the environmental analysis contained in this EA and presents a summary of impacts and mitigation measures identified.

**Table 1: Environmental Analysis Summary**

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
Noise	Potentially Significant	<p><b>Mitigation Measure NOI-1: Construction Hours</b></p> <p>Construction activities shall not occur outside the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, or outside the hours of 8:00 a.m. and 5:00 p.m. on weekends, or at all on federally recognized holidays. The project applicant or construction contractor shall post a publicly visible sign at the entrance to the individual fiber project site listing the allowable construction hours and the contact information, including telephone numbers, to report noise violations to the County and the contractor.</p>	Less than Significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<p><b>Mitigation Measure NOI-2: Backup Generator Noise Control</b></p> <p>Prior to approving individual fiber projects that require an emergency back generator, the County shall verify project plans including the following:</p> <ul style="list-style-type: none"> <li>Where feasible, emergency backup generators shall be installed no closer than 60 feet from any noise sensitive land use (NSLU; e.g., residences, schools, hospitals, convalescent homes, churches, libraries) in a community area, and no closer than 105 feet from any NSLU in a rural area. If it is not feasible to locate emergency generators 60 feet or more from NSLU in community areas or 105 feet or more from NSLUs in rural areas, the project proponent shall incorporate noise attenuating features (e.g., generator sound enclosures, noise barriers) into the equipment installation sufficient to reduce generator noise levels to 50 dBA LEQ or less measured at outdoor use areas or building edges of the closest NSLU. Noise levels at NSLUs shall be verified by a qualified acoustical professional.</li> </ul> <p><b>Mitigation Measure NOI-3: Vibratory Roller Use</b></p> <p>Prior to issuing individual project construction approvals or permits, the County shall insure that construction documentation includes the following restrictions. Vibratory rollers shall be used in static mode only (no vibrations) within the following distances:</p> <ul style="list-style-type: none"> <li>Within 15 feet of any occupied building; and</li> <li>Within 18 feet of any older residential building; and</li> </ul> <p>Within 60 feet of a fragile historical building, ruin, or ancient monument.</p>	
Air Quality	Potentially Significant	<p><b>Mitigation Measure AQ-1: Prepare a Fugitive Dust Mitigation Plan</b></p> <p>The applicant of an individual fiber project shall submit a Fugitive Dust Control Plan (FDCP) to the Air Pollution Control Officer of the El Dorado County Air Quality Management District (EDCAQMD) prior to the start of any construction activity for which a grading permit was issued by El Dorado County or incorporated city within El Dorado County. The FDCP shall implement all construction related best management practices (BMPs) included in Appendix C-1, Tables C.4 and C.5</p>	Less than Significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<p>of the EDCAQMD Guide to Air Quality Assessment. The FDCP shall be prepared in compliance with EDCAQMD Rule 223-1. Construction activities shall not commence until the Air Pollution Control Officer has approved or conditionally approved the Fugitive Dust Control Plan.</p> <p><b>Mitigation Measure AQ-2: Prepare an Asbestos Dust Mitigation Plan</b></p> <p>If naturally occurring asbestos, serpentine, or ultramafic rock is discovered by the individual fiber project applicant, a professional geologist, or the Air Pollution Control Officer, then an Asbestos Dust Mitigation Plan shall be prepared and submitted to the Air Pollution Control Officer prior to construction. The Asbestos Dust Mitigation Plan shall be prepared in compliance with El Dorado County Air Quality Management District (EDCAQMD) Rule 223-2. Construction activities shall not commence until the Air Pollution Control Officer has approved or conditionally approved the Asbestos Dust Mitigation Plan. If a professional geologist has conducted a geologic evaluation of the property and determined that no serpentine or ultramafic rock, or asbestos, is likely to be found in the area disturbed, then the Air Pollution Control Officer shall provide an exemption from EDCAQMD Rule 223-2.</p>	
Biological Resources	Potentially Significant	<p><b>Mitigation Measure BIO-1: Prepare a Site-Specific Biological Resources Assessment</b></p> <p>Prior to approval of an individual fiber project, the applicant of an individual fiber project shall retain a qualified biologist to prepare a site-specific biological resources assessment (BRA). The BRA shall consist of a desktop review of relevant biological databases and online resources, a general biological reconnaissance survey, vegetation mapping, aquatic resources assessment, analysis of potential impacts to biological resources, and proposed measures to avoid and/or reduce potential impacts.</p> <p>If it is determined during the biological resources assessment that special-status species have the potential to occur within a project area, then site-specific mitigation measures should be recommended to avoid and/or reduce potential impacts. Potential measures for special-status species may include, but are not limited to, protocol-level surveys, nesting bird surveys, and other focused preconstruction surveys.</p> <p>If it is determined that special-status species are present within or adjacent to the project area, or if the project has</p>	Less than Significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<p>potential to impact U.S Fish and Wildlife Service (USFWS) designated critical habitat and/or National Marine Fisheries Services (NMFS) essential fish habitat, then the project proponent shall coordinate with the California Department of Fish and Wildlife (CDFW) and/or USFWS, as necessary, to determine avoidance and/or mitigation and/or measures to reduce potential impacts to a level that would be less than significant. Depending on site-specific conditions, agency involvement may be triggered through the regulatory permitting process or direct agency consultation.</p> <p><b>Mitigation Measure BIO-2: Jurisdictional Delineation and Regulatory Permitting</b></p> <p>If it is determined that impacts to jurisdictional waters or other sensitive natural communities cannot be avoided, then the project applicant of an individual fiber project shall apply for any necessary permits from the USACE, CDFW, and the RWQCB (e.g., Section 401/404 permits, CDFW Lake or Streambed Alteration Agreement, etc.). If necessary, a formal delineation of wetlands and “other waters” of the U.S. shall be prepared in accordance with USACE’s Corps of Engineers Wetlands Delineation Manual and appropriate regional supplements to determine the extent of aquatic resources and quantify impacts. Impacts to jurisdictional waters and/or sensitive natural habitat shall be mitigated in accordance with agency requirements.</p> <p><b>Mitigation Measure BIO-3: Oak Resources Inventory</b></p> <p>If is determined during the biological resources assessment that an individual fiber project will result in impacts to oak resources, depending on the location of an individual fiber project, the County, incorporated cities, or TRPA may require mitigation for impacts to oak resources or regulated individual oak trees. Depending on the location of the individual fiber project, the County Community Planning and Building Department, City of Placerville Planning Division, City of South Lake Tahoe Planning Division, and/or TRPA may require an inventory of prematurely removed trees or canopy cover to determine the extent of the loss prior to approval of the individual fiber project. The inventory shall be prepared by a resource professional with expertise in oak woodlands ecology who is on the list of qualified consultants maintained by the County Community Planning and Building Department, City of Placerville Planning Division, City of South Lake Tahoe Planning Division, or TRPA. Resource professionals may include botanists, ecologists, wildlife biologists, and foresters.</p>	

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
Historic and Cultural Resources	Potentially Significant	<p><b>Mitigation Measure CUL-1: Archaeological Cultural Resources Investigations</b></p> <p><i>Preconstruction Screening Identification</i></p> <p>Prior to each phase of individual fiber projects, including installation and/or use of appurtenant structures, unpaved staging areas, and fiber optic line, El Dorado County shall request a records search for all project footprints for construction activities that require ground disturbance in areas that have not been previously subject to such disturbance. For those areas of native, unpaved soil that have not been adequately surveyed for archaeological cultural resources in the past, the County shall require a pedestrian field survey by a qualified professional archaeologist. If archaeological cultural resources are identified as a result of that survey, the County shall implement the recommendations of the consulting archaeologist to avoid or substantially reduce the severity of impacts on such resources. For those areas that have been surveyed previously, the County shall abide by the recommendations of the professional archaeologist who conducted the original survey.</p> <p><i>Known Resource Conflicts</i></p> <p>In the event that the records search described above identifies archaeological cultural resources that would be subject to a project-related impact, the County shall evaluate the status of the resource under the National Environmental Policy Act (NEPA). The archaeological resource shall be assessed for significance through the implementation of a Phase II investigation by a qualified archaeologist. This may require some or all of the following:</p> <ul style="list-style-type: none"> <li>• Development of a research design that guides assessments of site significance and scientific potential.</li> <li>• Mapping and systematic collection of a representative sample of surface artifacts.</li> <li>• Subsurface investigation through shovel test pits, surface scrapes, or 1-by-1 meter excavation units; a combination of such methods; or equivalent methods.</li> </ul>	Less than Significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<ul style="list-style-type: none"> <li>• Analysis of recovered material to determine significance pursuant to the NEPA.</li> <li>• Preparation of a report, including an evaluation of site significance, and recommendations for mitigation, if appropriate.</li> <li>• Appropriate curation of collected artifacts.</li> </ul> <p>If the resource is precontact in nature, the Phase II investigation shall be coordinated with descendant tribal communities. If the Phase II evaluation concludes that the archaeological resource does not qualify as a historical resource (PRC Section 21084.1) or unique archaeological resource (PRC Section 21083.2), then no further study or protection of the resource is necessary. If the resource does qualify as a historical or unique archaeological resource, then the County shall require the implementation of the Phase III approach described below.</p> <p>A Phase III data recovery effort, in accordance with NEPA, shall be implemented by the consulting archaeologist for those sites that are shown by the Phase II efforts to qualify as significant under NEPA. The County shall ensure that data recovery conducted to the level that reduces impacts to below the level of significance has been completed prior to individual fiber project implementation. The Phase III data recovery program shall include all or a combination of the following methods:</p> <ul style="list-style-type: none"> <li>• Development of a research design to identify important research questions that may be answered through a systematic study of the resource.</li> <li>• Mapping and systematic collection of surface artifacts, possibly complete data recovered depending on site size.</li> <li>• Subsurface investigation through methods such as controlled hand-excavation units, machine excavations, deep testing, or a combination of methods. When applicable, other techniques, such as geophysical testing, may be warranted.</li> <li>• Analysis of recovered material through visual inspection and chemical analysis when applicable.</li> <li>• Preparation of a report.</li> </ul>	



Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<ul style="list-style-type: none"> <li>• Appropriate curation of collected artifacts.</li> </ul> <p>If the resource is precontact in nature, the Phase III investigation shall be coordinated with descendant tribal communities.</p> <p><b>Mitigation Measure CUL-2: Inadvertent Discovery of Archaeological Cultural Resources</b></p> <p>In the event that cultural resources are exposed during ground-disturbing activities, construction activities shall be halted within 100 feet of the discovery. Cultural resources could consist of but are not limited to stone, bone, wood, or shell artifacts, or features, including hearths, structural remains, or historic-era dumpsites. If the resources cannot be avoided during the remainder of construction, a consulting archaeologist who meets the Secretary of the Interior’s <i>Professional Qualifications Standards</i> for archaeology shall assess the resource and provide appropriate management recommendations. The County shall implement those recommendations to avoid or substantially reduce the severity of impacts on significant resources.</p> <p><b>TCR-1: Archeological Treatment and Tribal Consultation</b></p> <p>In the event that potential tribal cultural resources (TCRs) are exposed during ground-disturbing activities, construction activities (e.g., grading, grubbing, or vegetation clearing) shall be halted in the immediate vicinity of the discovery. An archaeologist who meets the Secretary of the Interior’s <i>Professional Qualifications Standards</i> shall then be retained to evaluate the resource’s significance under NEPA in direct coordination with tribal members who would provide traditionally based cultural knowledge as a basis for collaboratively assessing said significance. If the discovery proves to be significant, additional work and mitigation measures, such as those listed in Mitigation Measures CUL-1 and CUL-2 as deemed appropriate by the tribal organization consulting on the find. Such mitigation may include avoidance, data recovery excavation, or traditional ethnographic research into the cultural importance of the find to contemporary descendant communities.</p>	

<p>Aesthetic and Visual Resources</p>	<p>Potentially Significant</p>	<p><b>Mitigation Measure AES-1: Visual Impact Assessment</b></p> <p>For any individual fiber project proposed within the viewshed of a designated scenic vista or State Scenic Highway, the project applicant shall prepare a Visual Impact Assessment (VIA) for Lead Agency review and approval. The VIA shall be prepared by a qualified professional with experience in visual resource analysis. The VIA shall evaluate the potential impacts of the project on scenic resources in accordance with NEPA, including but not limited to consideration of aesthetic values, visual quality, and the character of the surrounding landscape.</p> <p>The VIA shall include the following components:</p> <ul style="list-style-type: none"> <li>• <b>Baseline Conditions:</b> Documentation of existing visual conditions, including photographs, renderings, and/or other visual tools to establish the project site’s current view and its relationship to surrounding scenic resources.</li> <li>• <b>Visual Simulations:</b> Preparation of photo-realistic visual simulations depicting the project as proposed from key public viewpoints, including those within the scenic vista or from the State Scenic Highway.</li> <li>• <b>Impact Analysis:</b> Identification of potential impacts on scenic vistas and resources, using thresholds of significance established under NEPA or applicable local policies.</li> <li>• <b>Design Recommendations or Mitigation Measures:</b> Identification of feasible design measures or project-specific mitigation measures to avoid, minimize, and/or reduce potentially significant visual impacts. These measures may include, but are not limited to:             <ul style="list-style-type: none"> <li>○ Modifications to project design, height, massing, and/or orientation.</li> <li>○ Use of landscaping, vegetative screening, and/or earthworks to soften visual impacts.</li> <li>○ Use of non-reflective and/or neutral-colored materials to reduce visual contrast.</li> <li>○ Adjustment of lighting design to prevent glare and/or light trespass into sensitive areas.</li> </ul> </li> </ul>	<p>Less than Significant</p>
---------------------------------------	--------------------------------	---	------------------------------

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
Infrastructure	Potentially Significant	<p><b>Mitigation Measure TRA-1: Traffic Control and Detour Plan</b></p> <p>Prior to the issuance of an encroachment permit, a Traffic Control and Detour Plan shall be developed for individual fiber projects that would require an encroachment permit for construction activities along ROW to manage traffic during construction. The applicant shall consult with the Lead Agency and/or Caltrans prior to initiation of construction activities that may affect area traffic (such as construction staging necessitating lane closure, trenching, etc.) to ensure that the Traffic Control and Detour Plan is prepared in conformance with applicable code and ordinance requirements for emergency access. The construction contractor shall implement appropriate traffic controls identified in the Traffic Control and Detour Plan in accordance with the California Vehicle Code and other State and local requirements to avoid or minimize impacts on traffic during construction. The Traffic Control and Detour Plan shall be submitted to the agency responsible for issuing the encroachment permit for review and approval prior to the commencement of construction activities.</p>	Less than Significant

## 2.0 Purpose and Need

The purpose of the Proposed Action is to address the lack of broadband service in many areas of the County. The Proposed Action would help attract broadband infrastructure investors to bring broadband service to a County in need of reliable connectivity for increasing health and safety factors, as well as for economic and quality of life reasons. Expansion of broadband service and its associated infrastructure is vital to the various communities and cities in the County for many reasons, which include but are not limited to:

- Building social and community connections,
- Bolstering economic development and sustainability,
- Increasing telework and skilled workforce training, and
- Enhancing telemedicine.

### Objectives

In order to achieve the need of broadband within the County, the following objectives should be met:

- Promote the construction of a broadband network in unincorporated and incorporated areas of El Dorado County;
- Enable an increase in telework and telecommuting, with a correlated decrease in vehicle miles traveled;
- Improve public health and safety through enhancing telemedicine, enabling faster emergency response, enhanced communication between emergency services, and access to critical information during disasters or emergencies;

- 
- Streamline the environmental review process for individual fiber projects that are implemented in the County;
  - Identify known environmental and cultural assets to be protected and/or restored with an approved set of preservation measures and/or mitigations; and,
  - Save time and money for both El Dorado County and broadband project applicants, resulting in greater government and economic efficiencies, reducing the amount of County staff time required to review broadband projects and avoiding duplication of applicant costs.

## 3.0 Description of Proposed Action and Alternatives

### 3.1 Introduction

This EA analyzes four project alternatives: the No Action Alternative, the Aerial Installation Only Alternative, the Underground Installation Only Alternative, and the Use of Existing Infrastructure Alternative, in detail to compare to the Proposed Action because of their potential to reduce the potential impacts.

### 3.2 Proposed Action

#### Project Components

The County is proposing to expand access to fiber optic broadband technology throughout the unincorporated areas and incorporated cities within the County. See Figure 1 for the location of the Proposed Action. The Proposed Action would install fiber optic lines either underground in buried conduits, overhead on existing or newly constructed utility poles, or in a combination of both. It is anticipated that the depth of excavation for buried conduits would average approximately 5 feet. Additionally, the maximum height of the utility pole would be 100 feet. The majority of future broadband infrastructure would be constructed within the typical roadway cross-section within the unincorporated areas of the County, the incorporated cities of Placerville and South Lake Tahoe, or Caltrans public ROW. However, broadband infrastructure could also be constructed on private land and federal land. The exact alignment of future broadband infrastructure is currently unknown at this time and would be planned based on such considerations as construction feasibility, local preference, and/or locations of sensitive environmental resources.

Underground fiber optic conduit or aboveground utility poles would typically be located in previously disturbed and/or developed areas (e.g., in public ROW). Many of these fiber optic conduits or utility poles would generally follow the route of the roadway, particularly if the applicable areas have other issues that could affect access, such as sensitive vegetation, challenging geologic conditions, ornamental landscape, and/or water features that should not be disturbed. The fiber optic infrastructure could follow other utility installations; therefore, it is likely that the ground along these alignments has been previously disturbed by prior utility work. This EA conservatively assumes that new ground disturbance would be required for the entire Proposed Action; however, there would be potential for utilizing existing conduit or utility poles where only installation of fiber optic lines would be required. Existing conduit or utility poles could be located within public or private utility easements throughout the County or cities. If deemed feasible, the new broadband infrastructure would connect to existing broadband infrastructure (e.g., aboveground, and belowground) in the County supported by existing internet service providers (ISPs).

---

### Construction Schedule and Methods

The Proposed Action would begin construction of individual fiber projects in Spring 2025 and implementation of future individual fiber projects would likely occur over many years. It is possible that multiple, individual fiber projects could have overlapping construction timeframes (or phases). Additionally, any individual segment could involve multiple construction crews working simultaneously, with plowing, trenching, and directional drilling occurring at the same time in different locations of the segment. Construction activities would occur between 7:00 a.m. and 7:00 p.m. on weekdays and would not occur at night.

The construction methods for future individual fiber projects in the County would be determined based on various factors such as site location as well as environmental conditions and constraints. These methods include horizontal directional drilling, plowing, trenching, and microtrenching. Horizontal directional drilling involves drilling a pilot bore string towards existing access points, then attaching the conduit and pulling it back to install it. Temporary work areas would be established at the entry and exit pits for the bore rig and installation of access vaults. A plowing technique could be used in unpaved areas, where a vibratory cable plow incises the soil and lays the conduits simultaneously. Tracked vehicles are typically used for plowing. In wet or soft conditions, a specialized "spider plow" may be used to minimize disturbance. Trenching would be employed in areas where plowing is unsuitable, typically due to rocky soil or existing underground infrastructure. A backhoe or similar equipment would create a trench of varying width and depth, and the conduit would be placed at the bottom before backfilling and compacting the trench. In narrow or sensitive areas, pavement cutting, and narrow trenching may be necessary, with slurry backfilling and repaving. Microtrenching is an option for paved areas or sidewalks, involving a narrow excavation trench that is backfilled with slurry or cement and sealed with grout, epoxy, or other sealer. Co-locating broadband fiber optic line and conduit with other linear utilities would be encouraged where feasible.

Once the conduit system is in place, the fiber optic line or microducts would be installed by pulling or blowing them into the conduits. Compressed air or hydraulic pullers would be used for the installation, ensuring smooth pulling within specified tension limits. A pull line would be attached to a plug pushed through the conduit, and then the pull line would be pulled back, threading the fiber optic line through the conduit. Tension limiters and monitors would be used to record the pulling tensions encountered. To facilitate fiber installation, temporary assist points may be excavated if there is damage to the conduit. Access vaults, also known as handholes or pull boxes, could be placed along the alignment to allow for fiber optic line-splicing locations and future access to the buried conduits for maintenance purposes. Each vault would typically house a length of line slack and would be equipped with a traffic-bearing cover. These vaults would be installed as the final step in the horizontal directional drill process, usually in the same excavations used for drill entry and exit points. In areas where trenching is challenging or topography is extreme, aerial stringing could be used, utilizing existing utility poles, or installing new poles. Guy wires may be used for additional stability, and self-supporting poles may be used where guy wires are not feasible or burying the pole base is not possible.

### Preconstruction Activities

A Worker Environmental Awareness Program (WEAP) would be implemented prior to construction to educate workers about the project area's sensitive biological and cultural resources, as well as potential contamination risks such as areas containing NOA and ADL. All field staff, including employees, contractors, and subcontractors involved in construction, would be required to participate in the WEAP.

---

The WEAP would communicate policies, mitigation measures, and protective measures that must be followed, such as avoiding ground-disturbing activities near sensitive biological or cultural resources. In the case of hazardous material concerns, workers would be informed and the El Dorado County Fire Protection District and/or the City of South Lake Tahoe Fire Rescue would be notified depending on the location of the hazardous concern. Additionally, staff would be educated about proper handling and disposal procedures for hazardous wastes according to federal, State, and local regulations.

### Surface Restoration

Site cleanup and surface restoration under the Proposed Action would be performed promptly following fiber optic line installation. Cleanup would include removing debris and restoring original surfacing and contours. Any disturbed areas would be returned to their original or better condition by replacing asphalt, landscaping, or earthen areas. Staging areas are planned to be established along public roadways or existing disturbed areas along the construction routes in the County. If road constraints prevent locating staging areas along roadways, alternative areas such as previously disturbed private or public land would be used. The exact locations of staging areas and equipment lay-down areas would be determined during the final construction plans for each individual fiber project. Construction companies awarded contracts for specific segments would select the staging area locations. Staging areas would be used to mobilize crews; refueling would not take place in the field. Construction within the County, city, and/or Caltrans ROW would require an encroachment permit from the relevant jurisdiction. Construction on federal land would require an easement or ROW for construction and long-term maintenance of the infrastructure. Standard traffic control measures, specified in a Transportation Management Plan, would be employed for construction activities along roadways, subject to review and approval by El Dorado County, City of Placerville, City of South Lake Tahoe and/or Caltrans for work within their respective limits.

The construction activities would involve different types of vehicles and equipment depending on the specific installation taking place. The five main construction activity types are trenching, directional drilling, fiber blowing, aerial fiber installation, and fiber splicing. The equipment used may include pickup/utility trucks, plows, trenchers, jackhammers, chainsaws, cutting blades, excavators with rock saws or rock breakers, dump trucks, backhoes, boring rigs, and bucket trucks for aerial installation. It is assumed that all fiber installation locations would be accessible by trucks and other construction equipment. The specific equipment required for each individual fiber project would vary based on construction methods and site conditions.

### 3.3 No Action Alternative

Section 1502.14(d) of NEPA requires the analysis of a No Action Alternative. Analysis of a no action alternative provides a benchmark, enabling decision makers to compare the magnitude of the environmental effects to the proposed action or alternatives. No action means that an action would not take place, and the resulting environmental effects from taking no action would be compared with the effects of allowing the proposed activity to go forward. Under the No Action Alternative, broadband infrastructure in El Dorado County would remain in its existing condition. None of the impacts associated with construction and operational activities would occur if the No Action Alternative was selected. However, under the No Action Alternative, broadband availability would not be expanded in El Dorado County, and large portions of the County would continue to have no coverage or coverage so slow that it has become prohibitive to perform daily, essential tasks.

---

## 3.4 Alternatives

### Alternative 1: Aerial Installation Only

This alternative would include only individual fiber projects that install aboveground fiber optic line that would utilize new or existing utility poles. No underground fiber optic line or new conduit would be installed under this alternative. This alternative was considered because it would avoid or reduce potential impacts that may be associated with underground installation of new fiber optic line or new conduit, such as construction impacts associated with horizontal directional drilling, plowing, trenching, micro trenching, line installation, and/or pavement repair. Some areas of the County are known to contain NOA and ADL; the minimized ground disturbance under aerial installation methods may reduce the potential risk of exposure to hazardous materials. The aerial installation of fiber optic line would also be more feasible for long distance connections, such as in rural areas of the County.

The addition of new utility poles may not be feasible in some locations in the County due to the existing terrain and rocky subsurface conditions that would make it difficult to reach the boring depth required for utility poles, which would leave service gaps in those locations. Further, aerial installation may not be feasible in some densely forested and mountainous areas of the County, which may prevent the aerial stringing of fiber optic line or the installation of new utility poles. Aerial fiber optic line also typically requires more frequent maintenance, as compared to underground fiber optic line. Additionally, this alternative may result in increased impacts to aesthetics and visual resources associated with the construction of new utility poles within the viewshed of scenic vistas or U.S. 50, SR 89, and SR 88, portions of which are designated State Scenic Highways within the County.

### Alternative 2: Underground Installation Only

This alternative would include individual fiber projects that would only install underground fiber optic lines and would utilize new or existing underground conduit. No aboveground fiber optic line or new utility poles would be installed under this alternative. This alternative was considered because it would avoid or reduce potential impacts that would be associated with aboveground installation of fiber optic line, including impacts to aesthetics and visual resources associated with the construction of new utility poles within the viewsheds of scenic vistas or U.S. 50, SR 89, and/or SR 88, portions of which are designated State Scenic Highways within the County. Additionally, this alternative would be more feasible in certain areas of the County, such as densely forested or mountainous areas that would prevent the aerial stringing of fiber optic line or the installation of new utility poles. Lastly, the underground installation of fiber optic line typically requires less frequent maintenance due to fewer disturbances as compared to aerial fiber optic line.

The installation of underground fiber optic lines typically requires more ground disturbance and longer construction periods as compared to aerial installation. Increased construction-related impacts could occur due to the increased ground disturbance required for installation, including horizontal directional drilling, plowing, trenching, micro trenching, and/or line installation. Under this alternative, underground fiber optic lines could be constructed in areas that have existing buried utilities that could contain hazardous waste. Additionally, some areas of the County are known to contain NOA and ADL; the increased ground disturbance resulting from underground installation methods may increase the risk of exposure to the hazardous substances. Depending on the prevailing terrain and geological conditions, including bedrock near the surface, it may not be feasible to install underground infrastructure in some parts of the County.

---

### Alternative 3: Use of Existing Infrastructure

The Use of Existing Infrastructure Alternative would include individual fiber projects that install fiber optic line in existing fiber-specific conduit and/or along existing utility poles. Under this alternative, no new utility poles or underground conduit would be installed. This alternative was considered because it would avoid or reduce most impacts associated with the Proposed Action, as outlined in the program EIR, as fewer individual fiber projects would be implemented, resulting in less construction and ground disturbance. This alternative would avoid impacts to aesthetic and visual resources, because the stringing of aerial fiber optic line would occur along existing utility poles, which would not introduce new vertical features within the viewshed of scenic vistas or State Scenic Highways in the County. However, this alternative would not meet the basic objectives associated with providing a reliable system of broadband communications in El Dorado County, because it would not provide for the expansion of broadband infrastructure into portions of the service area that do not already include sufficient conduit, utility poles, and/or supporting infrastructure.

### 3.5 Alternatives Considered but Eliminated from Further Discussion

Not applicable.

## 4.0 Description of the Affected Environment

### 4.1 Noise

The ambient noise environment in El Dorado County is largely affected by stationary activities (e.g., commercial and industrial uses), aircraft operations, and traffic on major roadways and highways. Stationary noise sources include industrial and commercial land uses. Stationary noise sources in the County include quarry operations, lumber mills, schools/parks with sports fields, and industrial facilities. Some sources are located in urban settings and others, such as quarry operations, are sited in more rural locations. Noise-sensitive receptors located in the vicinity of these stationary sources consist primarily of residential dwellings (County 2003).

Ambient noise levels in many portions of the County are defined primarily by traffic on major roadways, including but not limited to U.S. 50 and SRs 49, 193, and 89. The areas surrounding travel corridors in the County are often characterized by hills, which may affect how traffic noise travels and how it is experienced at nearby sensitive receptors. Additionally, the speed limits on the travel corridors may frequently change due to vehicles needing to slow down around wide turns. Because vehicles may be regularly accelerating and decelerating, this can also be a factor that influences the level of traffic noise at sensitive receptors (County 2003).

### 4.2 Air Quality

The western slope of El Dorado County falls within the Mountain Counties Air Basin (MCAB) and is within the jurisdictional boundaries of the El Dorado County Air Quality Management District (EDCAQMD). The MCAB includes portions of Amador, Calaveras, El Dorado, Mariposa, Nevada, Placer, Plumas, Sierra, and Tuolumne counties, and is composed of seven air districts within the central and northern Sierra Nevada Mountain range. Air quality in the El Dorado County portion of the MCAB is regulated by the U.S. Environmental Protection Agency (USEPA) at the federal level, by the California Air Resources Board (CARB) at the State level, and by EDCAQMD at the regional level. The Lake Tahoe Basin



---

falls within the Lake Tahoe Air Basin (LTAB), which encompasses the eastern portion of El Dorado and Placer counties and Lake Tahoe. The LTAB is defined by the area within the 7,000-foot contour, which is continuous around Lake Tahoe. Air quality in the El Dorado County portion of the LTAB is regulated by the USEPA at the federal level, by the California Air Resources Board (CARB) at the State level, and by the Tahoe Regional Planning Agency (TRPA) and EDCAQMD at the regional level.

The western portion of El Dorado County, within the MCAB, is designated as nonattainment for Ozone and PM<sub>10</sub> with respect to the California Ambient Air Quality Standards (CAAQS) and is designated as nonattainment for Ozone (8-hour) and PM<sub>2.5</sub> with respect to National Ambient Air Quality Standards (NAAQS). The portion of El Dorado County within the LTAB is designated as nonattainment for Ozone, PM<sub>10</sub>, and CO with respect to the CAAQS and is designated as nonattainment for Ozone (8-hour) with respect to NAAQS (CARB 2024). As a regional agency, the EDCAQMD works directly with local governments and cooperates actively with all federal and State government agencies. The EDCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

The applicable air plan is the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan, developed by the air districts in the Sacramento region to bring the region into attainment for the ozone NAAQS and CAAQS. The plan is a joint project between the Sacramento Metropolitan Air Quality Management District (SMAQMD), EDCAQMD, and three other air districts in the Sacramento region (SMAQMD 2017). The plan includes the western portion of El Dorado County. In addition to not attaining the federal or State Ozone standards, the region is classified as nonattainment for the federal PM<sub>2.5</sub> standard and the State PM<sub>10</sub> standard. The State Implementation Plan (SIP) contains all plans, programs, and regulations for attainment of the PM<sub>10</sub> NAAQS in El Dorado County.

Asbestos dust is a known carcinogen and is classified as a toxic air contaminant (TAC) by CARB. NOA most commonly occurs in ultramafic rock (i.e., igneous and metamorphic rock with low silica content) that has undergone partial or complete alteration to serpentine rock (or serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, is associated with ultramafic rock, particularly near geological faults. Some areas of the County are known to contain NOA. Earthmoving activities in areas containing NOA could result in potentially significant levels of NOA in fugitive dust. See Figure 2 for a map of the known areas of NOA, areas likely to contain NOA, and buffer zones for known and likely NOA areas.

### 4.3 Geology and Soils

El Dorado County is located in the Sierra Nevada geomorphic province of California, which is east of the Great Valley province and west of the Range and Basin province. The Sierra Nevada province consists of Pliocene and older deposits that have been uplifted as a result of plate tectonics, granitic intrusion, and volcanic activity. No active faults have been identified in the western slope of El Dorado County. One fault, part of the Rescue Lineament–Bear Mountains fault zone, is classified as a well located late-Quaternary fault; therefore, it represents the only potentially active fault in the County. It is part of the Foothills fault system, which is a complex, braided system of individual fault segments that extends for approximately 200 miles from Mariposa in the south to Lake Almanor in the north. The fault system was considered inactive until a Richter scale magnitude 5.7 earthquake involving the Cleveland Hill Fault occurred near the City of Oroville, approximately 80 miles northwest of El Dorado County, in 1975. The Cleveland Hill Fault does not extend into the County. Fault systems mapped in western El Dorado County include the West Bear Mountains Fault; the East Bear Mountains Fault; the Maidu Fault Zone; the El

---

Dorado Fault; the Melones Fault Zone of the Clark, Gillis Hill Fault; and the Calaveras–Shoo Fly Thrust (County 2003). All faults in the western slope of El Dorado County, except for part of the Rescue Lineament-Bear Mountains fault zone, are classified as pre-Quaternary (inactive).

The Lake Tahoe Basin portion of the County is located in a region of active and potentially active faults. This conclusion can be drawn from earthquake and active fault-related topographic features and historical data, with some of the historical information dating back to the 1850s. The Tahoe Basin is a graben, or a down-dropped block bounded by steep faults on either side. These faults are structurally concordant with, although not known to be connected to, faults to the north in the vicinity of Truckee basin, Sierra Valley, Grizzley Valley, and Mohawk Valley. A substantial number of earthquakes have been recorded in these areas. In 1866, a magnitude 5.8 earthquake occurred near Hobart Mills, about 13 miles north of Lake Tahoe, yielding intensity VI in the North Shore area; in 1948, a magnitude 6.0 shock occurred about 5 miles west of Verdi, also with an intensity VI at Tahoe. Recent fault activity has been identified along the major north-south fault zone which separates the eastern edge of the Sierra Nevada from a parallel sequence of mountains, including reflection profiles of Lake Tahoe off Dollar Point. Several studies have identified numerous other fault-related features in the Tahoe Basin. There are three faults located in the center of the City of South Lake Tahoe, with a fourth located at the southern end. These are approximately located fault traces, some associated with the Tahoe Valley Fault Zone, and are not known to be active. Other faults are located in the vicinity of the City of South Lake Tahoe, including the West Tahoe and Genoa fault. The inactive faults running through the City of South Lake Tahoe have shown no history of fault ruptures and do not meet the criteria for building restrictions under the Alquist-Priolo Earthquake Fault Zoning Act. The risk of fault rupture is considered relatively low (City of South Lake Tahoe 2010).

Soils located on jurisdictional lands on the western slope of El Dorado County consist of well-drained silt and gravelly loams. The majority of soils in western El Dorado County have a low to moderate shrink-swell potential; a minimal amount have been mapped as high potential. The remaining areas are typically rock formations and are not rated. In the Lake Tahoe Basin, soils are organized into three major groups: (1) Nearly level to gently sloping soils along streams, on fans, and in meadows; (2) nearly level to steep soils on moraines, glacial outwash terraces, and fans; and, (3) the gently sloping to very steep soils of the mountains. Generally, the shrink-swell potential in soils in this area is predominantly low (County 2003).

Typically, agricultural land is considered in terms of its designation as Important Farmland under the Farmland Mapping and Monitoring Program (FMMP), which is maintained by the California Department of Conservation (DOC 2024). The DOC's Division of Land Resource Protection estimates that El Dorado County has approximately: 1,117 acres classified as Prime Farmland; 1,016 acres of Farmland of Statewide Importance; 4,406 acres of Unique Farmland; and, 83,136 acres of Farmland of Local Importance. The vast majority of soils on the west slope of the County are classified as Grazing Land and Other Land (County 2003). Based on the areas that have been mapped by the DOC, the Proposed Action area could potentially include small strips or plots of land that are designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, zoned for agricultural or forest land use, or be located under Williamson Act contract.

## 4.4 Water Resources

### 4.4.1 Surface Water (i.e., Lakes and Rivers)

---

Surface water on the western slope of El Dorado County is contained in three principal watersheds: the Middle Fork American River, the South Fork American River, and the Cosumnes River. The two largest watersheds in the Tahoe Basin are the Upper Truckee River and Trout Creek watersheds. Additionally, the City of South Lake Tahoe is situated at the end of Lake Tahoe and encompasses an area of approximately 6.4 square miles of the lake.

The Middle Fork American River watershed encompasses northern El Dorado County and southern Placer County. El Dorado County's portion of the watershed extends from the headwaters at Rockbound Valley in Desolation Wilderness, west to its terminus at the confluence with the North Fork American River, east of Auburn. The Rubicon River is the main tributary flowing into the Middle Fork and receives flow upstream from the South Fork Rubicon River and Pilot Creek. Other principal water features within the watershed include Rubicon Reservoir, Loon Lake, Gerle Creek Reservoir, Robbs Peak Reservoir, and Stumpy Meadow Reservoir (County 2003).

The South Fork American River watershed encompasses the central region of the County, extending from the headwaters at Echo Summit, west to the terminus at Folsom Reservoir. The major tributaries contributing flow directly into the South Fork American River are Silver Fork American River, Silver Creek, Slab Creek, Rock Creek, and Weber Creek. The upstream tributaries are Caples Creek, South Fork Silver Creek, and Jones Fork Silver Creek. Other water features within the watershed are Caples Lake, Silver Lake, Lake Aloha, Weber Reservoir (all managed by El Dorado Irrigation District [EID]), Ice House Reservoir, Union Valley Reservoir, Junction Reservoir, Camino Reservoir, Brush Creek Reservoir, Slab Creek Reservoir (all managed by Sacramento Municipal Utility District [SMUD]), and Chili Bar Reservoir (managed by Pacific Gas and Electric [PG&E]) (County 2003).

The Cosumnes River watershed encompasses the southern region of El Dorado County and the northwestern region of Amador County. The watershed extends from the headwaters along the Iron Mountain Ridge west to where the Cosumnes River enters Sacramento County. The major tributaries flowing directly into the Cosumnes River are the South, Middle, and North Fork Cosumnes Rivers, and Canyon Creek. Both Deer Creek and Carson Creek are also tributaries to the Cosumnes. The creeks drain a significant portion of western El Dorado County in the Cameron Park and El Dorado Hill/Latrobe areas, respectively. Bass Lake and Sly Park Reservoir are located in the Carson Creek watershed (County 2003).

The Upper Truckee River and its tributaries, which make up the Upper Truckee River watershed, comprise the largest contribution to the waters of Lake Tahoe. As the largest watershed in the Lake Tahoe Basin, the Upper Truckee' drainage area occupies approximately 56.5 square miles, which is 18 percent of the total land area tributary to Lake Tahoe (314 square miles). The Upper Truckee River main channel length is approximately 21.4 miles and is entirely located within the Planning Area. The Truckee River headwaters stem from the Stevens Peak and Red Lake Peak area near Carson Pass, both sides of Echo Peak, the south and eastern drainages of Ralston Peak, Grass Lake (meadow), and Big Meadow. As the Upper Truckee flows toward Lake Tahoe, the topography levels as the river reaches its floodplain (City of South Lake Tahoe 2010).

The Trout Creek watershed is the second largest in the Lake Tahoe Basin and occupies approximately 41.2 square miles, which is 13 percent of the total land area tributary to Lake Tahoe. Trout Creek has a main channel length of approximately 12.1 miles. The Trout Creek watershed is a major sub-watershed of the Upper Truckee River. Trout Creek enters the river just before it drains into Lake Tahoe. Historically, Trout Creek was a tributary to the Upper Truckee River in the Truckee Marsh area near Lake Tahoe. However, due to development of the Tahoe Keys, the Upper Truckee River was channeled to the

---

lake, and currently the streamflow of the two tributaries combines only during high runoff (City of South Lake Tahoe 2010).

Lake Tahoe is a tributary watershed drainage element within the Truckee River Basin, and its sole outlet is the Truckee River. Lake Tahoe is a designated Outstanding National Resource Water under federal antidegradation regulations and is renowned for its extraordinary clarity, purity, and deep blue color. Lake Tahoe has a mean depth of 1,027 feet and a maximum depth of 1,645 feet (City of South Lake Tahoe 2010).

Water quality in the County is under the jurisdiction of the Central Valley Regional Water Quality Control Board (CVRWQCB) and the Lahontan Regional Water Quality Control Board (LRWQCB), which are responsible for implementation of State and federal water quality protection guidelines within El Dorado County. Under Section 303(d) of the Clean Water Act (CWA), there are several County waterbodies on the 2018 California Integrated Report's list of impaired waterbodies due to varying pollutant sources. In the western slope of the County, the following waterbodies under the CVRWQCB's jurisdiction were identified as impaired waterbodies: North/Middle Fork American River, South Fork American River, Coon Hollow Creek, North Canyon Creek, Oxbow Reservoir, and Slab Creek Reservoir. In the Tahoe Basin, the following waterbodies under the LRWQCB's jurisdiction were identified as impaired waterbodies: Bijou Park Creek, Cold Creek, General Creek, Heavenly Valley Creek, Lake Tahoe, Tallac Creek, Trout Creek, and Truckee River (SWRCB 2018).

#### **4.4.2 Groundwater**

The California Department of Water Resources publishes Bulletin 118, which provides a detailed description of traditional groundwater basins in California. Such basins are characterized by loose, unconsolidated sediments or porous, permeable bedrock conditions. The Tahoe South Groundwater Basin is the only groundwater basin in the County (DWR 2024). The Tahoe South Groundwater Subbasin is a sedimentary groundwater basin within the southern portion of the larger Tahoe Valley Groundwater Basin. The subbasin occupies a roughly triangular area of about 14,800 acres (23 square miles) and is bounded on the southwest and southeast by the Sierra Nevada, on the north by the southern shore of Lake Tahoe, and to the northeast by the California-Nevada state line (City of South Lake Tahoe 2010). Due to the geology of the western slope of the County, which consists of primarily hard crystalline or metamorphic rock, groundwater does not penetrate the hard rock mass, although groundwater can be found in fractures below the ground surface (County 2003).

#### **4.4.3 Coastal Zone, Estuary, and Inter-tidal Areas**

El Dorado County is separated from the Pacific Ocean by approximately 130 miles; therefore, there are no coastal zones, estuaries, or inter-tidal areas in the County.

#### **4.4.4 Flood Plains**

Flood hazards that may occur in El Dorado County include flooding caused by precipitation, dam failure, and seismic activities. Floods from rainstorms generally occur between November and April and are characterized by high peak flows of moderate duration. The primary flood-prone areas on the western slope of the County are: South Fork American River from Kyburz to Riverton and below Chili Bar Dam; Coloma Canyon Creek between Greenwood and Garden Valley; Weber Creek from Placerville to the American River, including Cold Springs, Dry Creek, and Spring Creek tributaries; Shingle Creek from Shingle Springs to the Amador County line; Deer Creek from Cameron Park to Sacramento County line;

Big Canyon Creek from El Dorado to the Cosumnes River, including the Slate, Little Indian, and French Creek tributaries; New York Creek; Middle Fork of the Cosumnes River within the Somerset-Fairplay vicinity, and its confluence with the North Fork of the Cosumnes River; and, Cedar Creek from Omo Ranch to the Cosumnes River (County 2003).

In the Tahoe Basin, the majority of the floodplain surrounds the Upper Truckee River. A few developed areas along the Upper Truckee River are located within the 100-year floodplain. Flooding in these areas occurs in response to rainfall and rain-on-snow events. High lake levels may contribute to flooding. Flooding in the residential areas is associated with inadequate drainage facilities for conveyance of stormwater runoff or construction within floodplains. The other major creek in the area surrounded by the 100-year floodplain is Trout Creek. However, portions of the Tahoe Keys area (located adjacent to Lake Tahoe) and the Bijou Creek area are also susceptible to flooding and are located within the 100-year floodplain. There are also small areas within the 500-year floodplain around Bijou Creek, Trout Creek, and the Upper Truckee River (South Lake Tahoe 2010).

Due to the lack of extensive low-lying areas and a large amount of upland areas, the majority of El Dorado County is not subject to flooding. However, dam failure can occur as the result of an earthquake, as an isolated incident due to structural instability, or during heavy runoff that exceeds spillway design capacity. There are 57 dams in the County identified by the U.S. Army Corps of Engineers’ National Inventory of Dams (USACE 2024). Of these dams, the Dam Inundation Map of the El Dorado County *Public Health, Safety, and Noise Element*, identifies 11 dam inundation areas in the County. Additionally, there is one dam inundation area in the City of South Lake Tahoe. Of these 12 dam inundation areas, three of the dam inundation areas are due to dams located in Placer County, north of the El Dorado County line, and operated by the Placer County Water Authority.

**4.4.5 Wild and Scenic Rivers**

According to the National Wild and Scenic Rivers System, there are no designated Wild and Scenic Rivers in El Dorado County (NWSRS 2024).

4.5 Biological Resources

Biological Communities

Biological communities within the County, listed in Table 2, are sourced from the Existing Vegetation (Eveg) data associated with the Classification and Assessment with LANDSAT of Visible Ecology Groupings (CALVEG) Zones 3 (North Sierra) and 5 (Central Valley) (USFS 2014). The CALVEG habitat classification system correlates to other classification systems, such as the California Wildlife Habitat Relationships System (CWHR), which is described in detail in the CWHR publication *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988). Biological communities within the County broadly include aquatic, herbaceous, shrub, and forest and woodland habitats, as well as developed and non-vegetated lands.

**Table 2: Biological Communities in El Dorado County**

Habitat Type <sup>1</sup>	Acres in El Dorado County <sup>2</sup>
<b><i>Developed and Managed Habitats</i></b>	
Barren	44,713
Cropland	4,491

Habitat Type <sup>1</sup>	Acres in El Dorado County <sup>2</sup>
Deciduous Orchard	431
Evergreen Orchard	71
Pasture	3
Vineyard	266
Urban	19,704
<b>Aquatic Habitats</b>	
Lacustrine	50,396
Riverine	309
Wet meadow	4,247
<b>Herbaceous Habitats</b>	
Annual Grassland	82,851
Perennial Grassland	14,712
<b>Shrub Habitats</b>	
Alpine Dwarf-Shrub	568
Low Sage	41
Mixed Chaparral	32,707
Montane Chaparral	54,486
Sagebrush	357
Bitterbrush	19
Chamise-Redshank Chaparral	3,731
<b>Forest and Woodland Habitats</b>	
Aspen	372
Blue Oak Woodland	42,606
Blue Oak-Foothill Pine	13,635
Closed-Cone Pine-Cypress	421
Douglas Fir	853
Eastside Pine	111
Eucalyptus	38
Jeffrey Pine	27,618
Juniper	9
Lodgepole Pine	9,560
Montane Hardwood	160,538
Montane Hardwood-Conifer	44,376
Montane Riparian	2,495
Ponderosa Pine	86,318
Red Fir	84,908
Sierran Mixed Conifer	317,245
Subalpine Conifer	12,382
Valley Oak Woodland	3,574
Valley Foothill Riparian	9
White Fir	21,933

<sup>1</sup> Habitat type classification is based on the CDFW CWHR (Mayer and Laudenslayer 1988).

<sup>2</sup> Acreage values are rounded to the nearest whole number.

#### 4.5.1 Threatened and Endangered Species

##### Special-Status Species

According to the California Natural Diversity Database (CNDDDB), a total of 61 regionally occurring special-status plant species and 40 special-status wildlife species are either known to occur or have the

---

potential to occur in El Dorado County and vicinity. Based on published information and literature review, 101 species have potential to occur within El Dorado County. Further details on these species are included in Appendix F. Within El Dorado County, USFWS has mapped two final critical habitat units for California red-legged frog (*Rana draytonii*) and Sierra Nevada yellow-legged frog (*Rana sierrae*). Additionally, the NMFS Essential Fish Habitat (EFH) Mapper indicates EFH for chinook salmon (*Onchorhynchus tshawytscha*) mapped within the County in the Upper Cosumnes watershed (HUC 8-18040013).

#### 4.5.2 Critical or Threatened / Endangered Habitat

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, and/or human disturbance. This fragmentation of habitat can also occur when a portion of one or more habitats is converted into another habitat; for instance, when woodland or scrub habitat is altered or converted into grasslands after a disturbance such as fire, mudslide, or construction activities. Wildlife corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as wildfire or disease) on population or local species extinction; and, (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs. Some areas along the northern and southwestern boundary of the County are mapped as Essential Connectivity Areas (ECA) by the California Essential Habitat Connectivity Project. Other wildlife movement corridors are likely present throughout the Proposed Action area, such as riparian areas, drainages, and/or contiguous vegetated areas. These potential corridors would need to be evaluated on a site-specific level to determine the presence or absence within the Proposed Action footprint.

#### 4.5.3 Wetland Habitats

Sensitive natural communities include those that are of special concern to resource agencies or those that are protected under CEQA, Section 1600 of the California Fish and Game Code (i.e., riparian areas), the Porter-Cologne Act, and/or Sections 401 and 404 of the Clean Water Act, which includes wetlands and other waters of the U.S. and State. Sensitive natural communities, such as wetlands and other waters of the U.S. and State, are present within El Dorado County and have potential of being within the footprint of the proposed broadband infrastructure given the numerous stream crossings present along public ROWs. Other sensitive natural communities within the County may include riparian areas oak woodland, and other terrestrial habitats deemed sensitive by CDFW and/or the County.

### 4.6 Historic and Cultural Resources

#### 4.6.1 Archaeological Resources

#### 4.6.2 Architectural Resources

As is the case for archaeological research in many areas of the State, the various classification schemes and chronologies used by researchers when addressing the precontact era of north-central California and the Sierra Nevada foothills often conflict with one another. Most recently, Rosenthal (2011) has framed an overview of past research in the area by incorporating data from radiocarbon and obsidian hydration dates, projectile point types, and shell and glass bead types to delineate five temporal periods that account for the span of human occupation in the area.

---

### Paleo-Indian Period (~13,500 to 10,500 Years Before Present [BP])

There is little evidence of Late Pleistocene occupation in the immediate region, although the southern portion of the Central Valley shows evidence in the form of isolated, basally thinned and fluted projectile points found on the surface of remnant Pleistocene landscape features. With few exceptions these points have been found as isolates in undatable surface contexts and therefore have been associated with the Paleo-Indian period solely on the basis of their morphological similarity to securely dated Clovis projectile points from the Great Plains and Southwest regions (Dillon 2002). Potential Paleo-Indian finds from the general vicinity of the Proposed Action include a fluted point found in the lower component of the Skyrocket Site (CA-CAL-629/630), located west of New Melones Reservoir. The point was found in context with other artifacts that are typically associated with both the Paleo-Indian and Early Archaic periods, leading Bieling et al. (1996) to suggest that the component represents the transition between mobile big-game hunters and a more sedentary population that had a greater reliance on plant resources. Most local archaeological deposits associated with the late Pleistocene, if they exist, were likely destroyed or buried by a significant period of alluvial deposition that began about 9050 cal BP (Rosenthal et al. 2007).

### Early Archaic Period (10,500 to 7000 BP)

The Early Archaic Period in the region has been mainly represented by isolated finds, including heavy stemmed dart or spear points that are often found in association with groundstone tools. Flaked stone artifacts were generally manufactured from local toolstone, although imported obsidian was also used. The few sites with relatively diverse and abundant Early Archaic assemblages include the Skyrocket Site and the Clarks Flat site (CA-CAL-342), located on the Stanislaus River near Salt Springs Reservoir at the edge of the Central Valley. Early Archaic deposits have also appeared south of the Proposed Action area at CA-TUO-4557, partially in the form of flake tools and percussion debitage in buried late Pleistocene soils. The period was marked by high residential mobility, although the density of groundstone and expedient cobble-core tools at some sites suggest that they represent frequently visited camps in a settlement system structured around repetitive seasonal movement (Rosenthal et al. 2007). In contrast to the common interpretation that large game hunting was the focus of Early Archaic economies, this seasonal round appears to have targeted grassland-savanna resources, particularly acorns and wild cucumbers. Seeds and nuts were processed with milling slabs and handstones. Obsidian from Lower Archaic period sites has been sourced to both the North Coast Ranges and Eastern Sierra sources, suggesting that regional interaction spheres were well established by this time (Rosenthal et al. 2007).

### Middle Archaic Period (7000 to 3000 BP)

The beginning of the Middle Holocene saw a substantial shift to warmer, drier conditions, and subsistence increasingly emphasized upland plant resources. In contrast to earlier occupations, deposits dating to the Middle Archaic are relatively common throughout the region, although they also tend to be buried beneath more recent alluvial deposits. Assemblages are generally varied, diverse, and increasingly specialized, and are characterized by high numbers of expedient cobble tools, handstones, and milling stones, although mortars and pestles appeared as early as 4050 cal B.C. Projectile points associated with the Middle Archaic period include notched, stemmed, thick-leaf, and narrow concave base dart forms manufactured from locally available cryptocrystalline silicate (CCS), metavolcanic greenstones, and igneous materials including obsidian from the North Coast Ranges and, more often, the Eastern Sierra (Rosenthal et al. 2007; Rosenthal 2011). A few shell ornaments and beads recovered from burials suggest that social stratification began to develop during this period.



---

The latter half of the Middle Archaic represented the end of generalized, and often highly mobile, Early Holocene lifeways and the beginning of more specialized and intensive California hunter-gatherer-fishers known from ethnographic times (Stevens et al. 2009). Middle Archaic populations inhabited substantial residential sites below snowline during the winter when underground granaries were used to store fall-ripening nut crops of acorns and gray pines and moved to higher elevations in the spring to take advantage of spring- and summer-ripening seeds, berries, and fruits. This decrease in residential mobility and increase of base camp-type settlements implies a shift from a “forager” strategy, where populations are highly mobile and make frequent residential moves to opportunistically exploit a series of localized resource patches, to a logistically organized “collector” strategy where logistically organized food procurement parties travel from a central base camp to harvest and process specific resources (Binford 1980). The specialized tool assemblages, nonutilitarian objects, trade goods, and types of plant and animal remains that appear during the Middle Archaic period point to the longer-term residential settlements associated with collector strategies (Rosenthal et al. 2007).

#### Late Archaic Period (3000 to 1100 BP)

The climate of the prehistoric late Holocene approximated that of today, with cooler and moist conditions than the middle Holocene, but drier than the early Holocene.

The Upper Archaic period was essentially a continuation of late Middle Archaic lifeways and settlement patterns, including decreased residential mobility and the establishment of fixed, permanent or semi-permanent villages. Bedrock milling stations appear in the archaeological record by at least 1,300 BP, although at the Central Valley margins and Sierra foothills handstones and milling slabs were commonly used to process acorns and pine nuts (Rosenthal et al. 2007). Bone tools, wands, tubes, and ornaments are common in sites dating to this period, as are manufactured goods such as saucer- and saddle-shaped Olivella beads and Haliotis ornaments. The uniformity of these manufactured goods suggests some level of standardized or mass production, and implies an increased reliance on exchange relationships (Rosenthal et al. 2007). The prevalence of Bodie Hills obsidian in assemblages dated to this period underscores the importance of trade with Eastern Sierra groups.

#### Recent Prehistoric I and II (1100 to 100 BP)

The stable climate that began during the Upper Archaic continued through the Recent Prehistoric I (1,100 to 610 BP) and II (610 to 100 BP) periods. The most significant technological advancement during this period was the adoption of the bow and arrow, which replaced the atlatl and dart between about A.D. 1000 and 1300. Territorial boundaries became well established, and increased social complexity is suggested by a wider variation in burial types and furnishings. Cremation, which was reserved for high-status individuals during the beginning of the period, eventually became widespread in the Central Valley and adjacent foothills (Rosenthal et al. 2007). Human bones, often in great numbers, have also been found in limestone caverns throughout the foothill region (Moratto 1984).

The use of the acorn came to prevail over gray pine as a major dietary component, and significant increases in thin-shelled pine nuts are also apparent. These subsistence changes, coupled with an increase in sedentism marked by numerous year-round residential hamlets, indicate resource intensification that was likely made necessary because of increased population, although seasonal migration that spanned foothill woodlands and montane forests to 6,000 feet in elevation continued. The Recent Prehistoric II period is also represented by an expanded artifact assemblage that included

---

bone awls, drills, and other tool-making tools; evidence of basketry in specialized sites; incised tablets, bone whistles, shell and glass beads; and other specialized or non-utilitarian artifacts.

### Nisenan

At the time of European contact, much of the vicinity of the County was occupied by the Nisenan (alternatively known as the Southern Maidu). Maidu groups are identified primarily by their language, which is a subgroup of the California Penutian linguistic family; these groups are divided, mainly on dialectic grounds, into the Nisenan, or Southern Maidu (living within the American River drainage plus parts of the Bear, Cosumnes, and Yuba rivers), the Northeastern Maidu (on the upper reaches of the North and Middle Forks of Feather River), and the Northwestern Maidu (below the foothills of the Sierra Nevada where the south, middle, north, and west branches of Feather River converge and on upper Butte and Chico creeks as well as parts of the Sacramento Valley). Nisenan villages ranged in population from 15 to 25 people, with the tribal centers averaging more than 500 people. Large settlements consisted of one major village with associated smaller, seasonal camps. Villages were typically located on ridges above major streams and rivers and were inhabited mainly in the winter months. During the hot summer months, the Nisenan moved to cooler temporary camps in higher elevations.

The local environment provided abundant food sources with seasonal gathering conducted mainly by women and children. Hunting and fishing, primarily conducted by the men, were year-round pursuits but were most successful in the late summer and early fall. The Nisenan had few contacts outside their immediate tribal territory and those contacts were limited to warfare, trade, and ceremonial gatherings. Villages were led by a headman or advisor, but each extended family had a leader who assisted the village headman. Some of the headman's duties included advising the people in general, preventing them from trespassing, directing ceremonies and festivities, arbitrating disputes, and leading the village in times of warfare. Typically, the dead were cremated along with their property, and their dwelling was either moved or destroyed.

Maidu groups practiced a religion called the "Kuksu," which was widespread among California Native Americans and appeared in various forms. Ceremonies were typically conducted in the semi-subterranean dance houses that were centrally located within each village. A ceremony celebrated annually in the fall was the mourning ceremony that honored ancient ancestors as well as the individuals that had died during the year.

Early contact with the Spanish was limited to the southern edge of Nisenan territory, with most early accounts resulting from early penetrations of Spanish into Plains Miwok territory. During the late 18th century, systematic removal to the missions and resistance by the Plains Miwok occurred along the border shared with the Nisenan. The Nisenan also received missionized Native Americans into their territory, as well as Miwok villagers displaced by the Spanish (Wilson and Towne 1978:387-97).

In 1833, a massive epidemic, believed to have been malaria, swept through the Sacramento Valley (Cook 1955). The exact number of casualties is unknown, but it is estimated that 75 percent of the Maidu population were killed, leaving only a fraction of the original number to face the intruding miners and settlers that arrived when gold was discovered in Coloma in 1848.

### Sierra Miwok

The southern portion of El Dorado County is located within what was recorded ethnographically as territory of the Sierra Miwok (Kroeber 1925). The Miwokan family of languages, a member of the Utian

---

sub-stock, was made up of seven distinct languages variously situated in central California from Clear Lake south to the Bay Area and east to encompass the foothills and mountains of the central Sierra Nevada. Sierra Miwok was initially a single language, which developed into the Northern, Central, and Southern Miwok languages over time (Levy 1978). The central group occupied the foothills and mountains of the Stanislaus and Tuolumne river drainages. The name "Miwok", from Central Sierra Miwok *miwü* (person), was a construct of ethnographers and had little meaning to Miwok speakers, in that they did not consider themselves a single group. They were, instead, separate, independent tribelets which together shared common language and culture.

The Sierra Miwok economy was focused on the acquisition of seasonally available foods through logistically organized seasonal migration which appears to be a continuation of the settlement and subsistence strategy developed during the Late Archaic and Recent Prehistoric periods. During winter, populations concentrated in villages below snowline, and from spring to fall small groups dispersed to higher elevations to exploit ripening plant foods. Acorns, the Sierra Miwok's primary plant food, were stored for winter consumption in above-ground granaries and processed with nutting anvils, hammer stones, pestles, and portable and bedrock mortars. Gray and sugar pines were also important food sources, as were others that produced seeds and edible roots. Deer were the most important game animal to the Sierra Miwok, but bear, rabbits, and a wide variety of small game were taken as well.

### Washoe

The Washoe people inhabited the high-altitude portions of the County west and south of Lake Tahoe. The Washoe language is arguably associated with the Hokan language family, and as such is distinct from both the Penutian languages to the west (i.e., Maidu and Miwok) and the Uto-Aztecan languages to the east (i.e., Paiute) (Jacobsen 1986). D'Azevedo (1986) argues that these distinctions suggest the Washoe occupation of the high Sierra Nevada predates the arrival of Numic speakers in the western Great Basin and may have begun as early as 6,000 years ago.

By inhabiting different ecological zones from much of the Nisenan and Miwok areas, the Washoe adopted somewhat different economic, subsistence, settlement, and technological systems. For example, while the Nisenan and Miwok relied heavily on the acorn as a staple food, the Washoe exploited a wide variety of flora including camas bulbs, bitterroot, tule, cattail, wild rye, and pine nuts. Bedrock mortars are also found in Washoe areas, but they tend to be shallower and far less numerous than at lower elevations of the County, reflecting less use of food resources requiring extensive processing (El Dorado County 2003).

The types of resources associated with ethnographic or early historic-era periods of Native American occupation in the County differ little from those noted for later prehistoric periods. Sites and activity areas were still located in well-watered level areas and bedrock mortars were used for food processing until fairly recent times. Ethnographic village sites frequently exhibit large subterranean structure remains or house pits and can be more readily visible than the remnants of earlier Native American cultures and periods.

#### **4.6.3 Native American Traditional, Cultural or Religious Resources**

El Dorado County has a rich archaeological record with expressions of material culture in almost every environmental setting. Examples of these archaeological cultural resources can range from precontact-era settlement and resource procurement areas to mining-related features such as adits and tailings, or archaeological features sealed beneath the hardscape of the County's urbanized areas. Their

---

significance can lie in their ability to contain information important in the precontact era and/or the historic era, but also in their value to descendant communities as expressions of their cultural heritage and patrimony.

#### 4.7 Aesthetic and Visual Resources

The visual environment of the western slope of the County is characterized by rolling hills dotted with mature oaks and oak woodlands, agricultural land, apple orchards and vineyards, evergreen forests and snow-capped mountains, scenic rivers, alpine lakes, and historic structures. The mountain conditions in the Lake Tahoe Basin are a visually dominant feature in the eastern portion of the County (County 2003).

U.S. 50 traverses the entire County from the Sacramento County line to the Nevada state line. A 58-mile segment of U.S. 50 is a designated State Scenic Highway from the Government Center Interchange in the City of Placerville to the City of South Lake Tahoe city limit. Often steep and mountainous, this scenic route runs from the suburban foothills of the Sierra Nevada through the American River Canyon, over the granite peaks of Echo Summit, then descends to the Tahoe Basin with spectacular views of Lake Tahoe (Caltrans 2024a). Additionally, the segment of U.S. 50 from the City of South Lake Tahoe to the Nevada state line is eligible for designation as a State Scenic Highway (Caltrans 2024b).

State Route (SR) 89 traverses the eastern portion of El Dorado County in the Lake Tahoe Basin from Placer County in the north to Alpine County in the South, and intersects with U.S. 50 at “The Y”. A 27-mile portion of SR 89, known as Lake Tahoe Road, is a designated State Scenic Highway. This mountainous road travels along alpine forests and meadows with views of mountain ranges and peaks. The northern portion overlooks Lake Tahoe (Caltrans 2024a). SR 88, also known as the Carson Pass Highway, travels east-west from Stockton to the Nevada state line. Although SR 88 is located within the jurisdiction of Caltrans District 10 (which includes Alpine, Amador, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus, and Tuolumne counties), portions of it travel along the Amador-El Dorado county line. Along this boundary, a 33.5-mile segment of SR 88 is a designated State Scenic Highway. SR 49 traverses the western slope of El Dorado County from Placer County in the north to Amador County in the south. All of SR 49 is eligible for designation as a State Scenic Highway (Caltrans 2024b).

Caltrans also maintains an inventory of approximately 146 scenic vistas in the State, which provide informal pullout areas along roadways where motorists can park and safely view scenery. Of these, two are located in the eastern portion of El Dorado County. Emerald Bay/Vikingsholm Vista Point is located along SR 89 as postmile 17.3 and overlooks Emerald Bay, Lake Tahoe. Christmas Valley Vista Point is located along SR 89 at postmile 5.6, and provides views of forested landscapes, meadows, and the surrounding mountains (Caltrans 2024c). Figure 3 shows the State Scenic Highways and Caltrans-maintained scenic vistas within the County.

Lake Tahoe is a designated Outstanding National Resource Water under federal antidegradation regulations and is renowned for its extraordinary clarity, purity, and deep blue color. Much of the beauty of the lake comes from its extraordinary transparency and related deep blue color (City of South Lake Tahoe 2010). Other scenic resources in the County include rivers and streams, which are important visual resources that draw tourists to the area for recreational opportunities. The American, Cosumnes, Rubicon, and Upper Truckee rivers run through the County. Additionally, natural open space corridors associated with stream environment zones (SEZ) of the Upper Truckee River, Trout Creek, Heavenly Valley Creek, and Bijou Creek consist of natural creek and meadow landscape conditions (City of South Lake Tahoe 2010). The National Wild and Scenic Rivers System was created by the U.S. Congress in 1968

---

to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. Rivers may be designated by Congress or, if certain requirements are met, the U.S. Secretary of the Interior. Each river is administered by either a federal or state agency. To date, there are no designated Wild and Scenic Rivers in El Dorado County, although portions of the American River outside of the County have such designations (NWSRS 2024).

The viewer groups within El Dorado County are residents, visitors, cyclists, motorists, and recreationists. For residents, viewer sensitivity is high due to their long-term, constant presence in the area and the moderate to high visual quality of the surrounding scenery. It is also presumed that these viewer groups were drawn to the County, in part, because of the viewshed, although motorists/cyclists may travel the area's roadways solely to reach a destination and generally experience the scenery in the short term. Recreationists, such as hikers, cyclists, and equestrians, may utilize historic trails within the County and generally experience the scenery in the short term. Visual sensitivity depends on the number and type of viewers and the frequency and duration of views. Generally, visual sensitivity increases with an increase in total number of viewers, the frequency of viewing and the duration of views. Sensitivity tends to be lower for views seen by people driving to and from work or as part of their work. Views from recreational trails and areas, State Scenic Highways, and scenic overlooks are generally assessed as having high visual sensitivity (County 2003).

#### 4.8 Land Use

The Proposed Action area includes the unincorporated areas of the County and the incorporated cities of Placerville and South Lake Tahoe; as such, there are various general plan land use designations and zoning designations within the Proposed Action area. The majority of future broadband infrastructure would be constructed within the typical roadway cross-section within the unincorporated areas of the County, the incorporated cities of Placerville and South Lake Tahoe, and/or Caltrans' ROW. Broadband infrastructure could also be constructed on private land and federal land. Public and private roads are currently designated in the cities' and County's general plans, zoning codes, and ordinances to accommodate utility infrastructure. Although the exact alignment of future broadband infrastructure is currently unknown at this time, individual fiber projects would be planned based on such considerations as construction feasibility, local preference, and/or locations of sensitive environmental resources.

#### 4.9 Infrastructure

The major water supply source in El Dorado County is surface water diverted from streams and reservoirs, and conveyed to water users via canals and pipelines after it is treated at treatment plants. There are six public water purveyors in El Dorado County. El Dorado Irrigation District (EID), Georgetown Divide Public Utility District (GDPUD), City of Placerville, and Grizzly Flats Community Services District (GFCSD) provide water services in the West Slope. The City of Placerville receives wholesale water from EID. South Lake Tahoe Public Utility District (STPUD) provides groundwater services, and Tahoe City Public Utility District (TCPUD) provides water services from both groundwater and spring wells in the Tahoe Basin. These purveyors' service areas do not cover the entirety of the County. Residents, farms, ranches, and businesses outside these purveyors' boundaries primarily rely on groundwater. In the west slope of the County, shallow groundwater wells are used, and in the Tahoe Basin, groundwater is extracted from either the Tahoe South or Tahoe West Subbasin (EDWA 2019).

Two wastewater collection systems and treatment plants (WWTP) operate in the west slope of the

---

County, both owned and operated by EID: El Dorado Hills WWTP and Deer Creek WWTP. All of the wastewater produced on the west slope of the County outside the EID collection system service area is treated by onsite wastewater treatment systems (OWTS). These systems are also referred to as septic systems and typically include an underground septic tank connected to a house, business, or public facility and underground leach fields. The County operates the Union Mine Septage Treatment and Disposal Facility. This facility accepts septage from OWTS throughout the County, treats it, and disposes the waste byproducts (County 2003). STPUD provides wastewater treatment services to those areas of the Tahoe Basin in El Dorado County, including the entire City of South Lake Tahoe and most areas to the west and south of the city limits in the City's sphere of influence (City of South Lake Tahoe 2010).

Flooding is the primary hazard related to stormwater runoff. Urban development generally increases the amount of impervious surface area. When rainfall or snowmelt exceeds the ground infiltration rate (i.e., the ability of the ground to absorb water), stormwater runs off and collects in drainage facilities, which may be in the form of roadways, storm drains, or natural creeks and rivers. The western slope of El Dorado County contains three major watersheds, each of which drains into one of these major rivers: the Middle Fork American River, the South Fork American River, and the Cosumnes River. The Tahoe Basin contains two major watersheds that meet within the City of South Lake Tahoe city limits: the Trout Creek and Upper Truckee River watersheds. Lake Tahoe is listed as a Water Quality Limited Segment under Section 303(d) of the federal Clean Water Act. There has been a noticeable decline in the clarity of Lake Tahoe over the past several decades, which has been attributed to increased human activities such as urbanization within the watershed and from atmospheric deposition from sources in the watershed and from regionally adjacent areas (City of South Lake Tahoe 2010).

Electricity on the west slope of El Dorado County is primarily supplied by Pacific Gas and Electric Company (PG&E). NV Energy (formerly Sierra Pacific Power) provides electrical service to the City of South Lake Tahoe and the City's sphere of influence (City of South Lake Tahoe 2010).

PG&E supplies natural gas to portions of the western slope of El Dorado County; however, natural gas distribution lines only extend from the Sacramento County line to the community of El Dorado Hills and El Dorado Hills Business Park. The households in the remaining portions of the west slope of the County use either all electric energy or propane in lieu of natural gas (County 2003). Southwest Gas Corporation (Southwest) provides natural gas service to the City of South Lake Tahoe and the City's SOI. Southwest provides natural gas service through federal- and state-regulated public utility rules and tariffs. Southwest's service area in northern California includes the Truckee, Donner Lake, North Lake Tahoe, and South Lake Tahoe areas. Southwest provides services utilizing approximately 1,230 miles of natural gas distribution pipelines and serves approximately 38,000 natural gas distribution customers (City of South Lake Tahoe 2010).

The County's Solid Waste and Hazardous Materials Division is responsible for the comprehensive planning of solid waste reduction, recycling, and resource recovery in El Dorado County. The County contains two material recovery facilities (MRF): the El Dorado Disposal MRF and the South Lake Tahoe Refuse/Transfer Station MRF. There are no solid waste disposal sites in El Dorado County. Once collected, solid waste generated on the west slope (including recyclable materials) is taken to the MRF/transfer station at Diamond Springs. From the MRF, unrecyclable solid waste is taken to Lockwood Landfill in Nevada for disposal (County 2003). The County currently has franchise agreements with solid waste companies to provide solid waste collection services, including Waste Connections of California, Inc., doing business as (dba) El Dorado Disposal Service; South Tahoe Refuse Company, Inc., dba South Tahoe Refuse; and Tahoe Truckee Disposal Company, Inc., dba Tahoe Truckee Sierra Disposal (County

---

2024).

Internet service in the west slope of the County is provided by several ISPs including but not limited to: Earthlink, AT&T, Xfinity, T-Mobile, Verizon, Zeta, and Cal.net. AT&T is the only ISP for the City of South Lake Tahoe and the City's SOI (City of South Lake Tahoe 2010). While some areas of the County have sufficient internet speeds for daily work and home life, there are still large portions of the County with no coverage or coverage so slow that it has become prohibitive to perform daily, essential tasks. Through use of a U.S. Department of Commerce, Economic Development Administration (EDA) technical assistance and planning grant, El Dorado County conducted a Broadband Needs Assessment and Feasibility Study (Study) in 2017. The results of the 2017 Study identified numerous areas in the County that lacked sufficient broadband service, and much of the County does not have access to the minimum definition of broadband services of 25/3 Mbps. Per the State of California's definition, areas with less than existing 25/3 Mbps are considered "unserved" and areas with less than existing 100/20 Mbps are considered "underserved". These unserved, or even underserved, populations in California are missing out on what is now seen as a utility critical to quality of life.

El Dorado County's transportation system is primarily focused on the roadway network. The County Road System consists of approximately 1,083 miles of paved roadway. Although automobile travel is the primary function of the roadway network, it also serves a variety of other users including freight haulers, buses, bicycles, pedestrians, and in some locations, equestrians. U.S. 50 is the primary transportation corridor extending through the county from west to east and serves the County's major population centers, including the communities of El Dorado Hills, Cameron Park, Diamond Springs, and Camino, and the cities of Placerville and South Lake Tahoe. Other State highways, County arterials, and a network of local public and private roads constitute the remainder of the roadway system. State highways in El Dorado County include freeways, expressways, and conventional highways that are operated and maintained by Caltrans. These highways are an integral part of the County transportation system serving inter-County and inter-city traffic. El Dorado County has one U.S. route (U.S. 50) and four other State Routes (SRs 49, 89, 153, and 193), all of which are maintained by Caltrans (County 2019).

There are four general aviation airports within the County. The Placerville Airport and the Georgetown Airport are both owned and operated by El Dorado County. Cameron Airpark Airport is owned and operated by the Cameron Park Airport District, a special district, and the Lake Tahoe Airport is owned and operated by the City of South Lake Tahoe. The County's airports are used by the general public as well as military and other government agencies for training flights, search and rescue missions, and fire suppression support (County 2019).

The non-motorized transportation system is composed of the local and regional bikeways and trails in El Dorado County. With the exception of students commuting to school, bicycles and other forms of non-motorized transportation have not been widely used as a transportation mode for commuting in the County. Most bicycling and walking in the County occur for recreational or social purposes (County 2019). The sidewalk system throughout the County is limited. Lastly, public transportation in El Dorado County consists of the following services and facilities: El Dorado County Transit Authority; Lake Tahoe Transit; commercial bus services; private taxi and rideshare services; vans and carpools; and park-and-ride facilities (County 2019).

#### 4.10 Socioeconomic Resources

El Dorado County has a population of 192,215. Approximately 87.2 percent of the population are White;

---

1.1 percent are Black or African American; 1.4 percent are American Indian and Alaska Native; 5.7 percent are Asian; 0.3 percent are Native Hawaiian and Other Pacific Islander; 4.4 percent are two or more races; and 14.7 percent are Hispanic or Latino. Within the County, 7.6 percent of the population are in poverty (U.S. Census Bureau 2023).

#### 4.11 Human Health and Safety

Hazardous waste generated in El Dorado County originates from small businesses, industry, households, and government. The majority of the hazardous waste stream in the County consists of waste oil, paint, and lead acid car batteries. Hazardous materials in El Dorado County are regulated through a combination of federal, State, and local regulations to ensure their safe handling, storage, transportation, and disposal. Several agencies and departments play a role in overseeing and enforcing these regulations. At the federal level, the USEPA sets standards and regulations for hazardous materials under various laws, such as the Resource Conservation and Recovery Act (RCRA) of 1976 and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). These regulations govern the proper management, storage, and disposal of hazardous materials and address issues related to hazardous waste, contaminated sites, and emergency response. At the State level, the California Department of Toxic Substances Control (DTSC) has authority over hazardous materials and hazardous waste management. They establish regulations and programs to ensure the safe handling, storage, and disposal of hazardous materials, including requirements for permits, inspections, and reporting

Both the USEPA and the U.S. Department of Transportation (USDOT) regulate the overall transportation of hazardous waste and material, including transport via highway and rail. USEPA administers permitting, tracking, reporting, and operations requirements established by the Resources Conservation and Recovery Act (RCRA). The USDOT regulates the transportation of hazardous materials through implementation of the Hazardous Materials Transportation Act (HMTA). The HMTA administers container design and labeling and driver training requirements. These established regulations are intended to track and manage the safe interstate transportation of hazardous materials and waste. Transportation of hazardous materials on highways falls under federal legislation; however, authority is delegated to various state and local agencies that are focused on specific aspects of hazardous materials and transportation. The Hazardous Waste Control Act establishes the California Department of Health Services (DHS) as the lead agency in charge of the implementation of the RCRA program. State and local agencies such as the California Highway Patrol (CHP), Caltrans, and the County Fire Departments and protection districts are responsible for the enforcement of state and federal regulations and responding to hazardous materials transporting emergencies. The CHP establishes State and federal hazardous material truck routes and has lead responsibility over hazardous material spills on State highways.

The State Water Resources Control Board (SWRCB) regulates spills, leaks, investigation, and cleanup sites and maintains an online database, GeoTracker, to provide access to environmental data. The GeoTracker database tracks regulatory data about leaking underground storage tank (LUST) sites, fuel pipelines, and public drinking water supplies and presents it in a geographic information system format. GeoTracker contains 496 records for El Dorado County. The database indicates that there are 204 LUST Cleanup Sites, 41 Cleanup Program Sites, eight Land Disposal Sites, 133 WDR sites, 13 AGLand Domestic Wells, 86 Permitted Underground Storage Tank (UST) Sites, three Single-Walled UST Sites, and two Non-Case Information Sites, most of which have been fully remediated. A total of 27 sites are currently open, including five LUST Cleanup Sites, 18 Cleanup Program Sites, and four Land Disposal Sites (SWRCB 2024). DTSC also maintains a list of cleanup sites and hazardous waste permitted facilities on its EnviroStor database. The EnviroStor database has a total of 56 records for El Dorado County, none of which are



---

active (DTSC 2024). Lastly, the National Priorities List (NPL) contains a list of sites of national priority among known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the U.S. There are no sites currently on the NPL, nor proposed on or deleted from the NPL, within El Dorado County (USEPA 2024).

The El Dorado County Transportation Commission (EDCTC) is the designated ALUC for the three airports within the west slope of the County, Cameron Airpark, Georgetown Airport, and Placerville Airport, and maintains an individual ALUCP for each airport (EDCTC 2012). The South Lake Tahoe ALUC maintains the Lake Tahoe ALUCP. The EDCTC and South Lake Tahoe ALUCs provide technical and advisory support to the County's airports, and serve four primary functions under the State Aeronautics Act of the California Public Utilities Code commencing with Section 21670 (Division 9, part 1, Chapter 4, Article 3.5):

- Develop and adopt land use standards to minimize public exposure to safety hazards and excessive levels of noise;
- Prevent encroachment of incompatible land uses around public-use airports;
- Prepare an Airport Land Use Compatibility Plan for the area around each public use airport defining compatible land uses for safety, density, height, and noise; and,
- Perform land use consistency determinations for proposed projects within each ALUCP.

## 5.0 Analysis of Environmental Impacts

### 5.1 Noise

Construction noise of individual fiber projects would be temporary as construction occurs intermittently and varies depending on the nature or phase of construction (e.g., horizontal directional drilling, plowing, trenching, microtrenching, line installation, aerial stringing, and pavement repair). Construction equipment would vary by construction method, but the construction process could include operation of the following types of equipment: pickup/utility trucks, horizontal drill rigs, auger drill rigs, cranes, generators, excavators, backhoes, dozers, air compressors, trenchers, concrete saws, chainsaws, vibratory rollers, dump trucks, and pneumatic lifts. Noise generated from these pieces of equipment would be temporary and intermittent as typical use is characterized by short periods of full power operation followed by extended periods of lower power, idling, or powered-off conditions. Construction activities would be limited to 7:00 a.m. to 7:00 p.m., Monday through Friday, and between 8:00 a.m. to 5:00 p.m. on weekends and federally recognized holidays, and therefore would be consistent with the County Maximum Allowable Noise Exposure for Non-Transportation Noise Sources in Community Regions and Adopted Plan Areas—Construction Noise (County 2019). Mitigation Measure NOI-1 would be implemented to restrict the construction activity hours. With implementation of Mitigation Measure NOI-1, the Proposed Action would not exceed the applicable County construction noise standards.

Some remote sites could include the use of gas-powered backup generators to provide temporary power for emergency communications during power outages. Specific types of generators that would be installed are unknown. A typical backup generator for a communications site is a 15-kilowatt diesel- or natural gas-powered generator housed in an enclosure which has a rated sound level of 66.2 dBA measured at 23 feet. Noise from routine maintenance and testing of emergency generators would be subject to County Ordinance Chapter 9.16, which prohibits loud or raucous noises which would unreasonably interfere with the peace and quiet of private property. Emergency generators are typically run for maintenance and testing for 15 to 30 minutes during daytime hours, 1-2 times per month. A generator producing 66.2 dBA for 30 minutes in one hour would result in 63.2 dBA  $L_{EQ}$  at a distance of 23

---

feet. Mitigation Measure NOI-2 would require emergency backup generators to be located away from any NSLU or provide sound reduction measures to reduce noise from generators. Per the County General Plan Goal 6.5, project noise would be significant if daytime noise (between 7 a.m. and 7 p.m.) would exceed 55 dBA  $L_{EQ}$  in community areas and 50 dBA  $L_{EQ}$  in rural areas, if evening noise (between 7 p.m. and 10 p.m.) would exceed 50 dBA  $L_{EQ}$  in community areas and 45 dBA  $L_{EQ}$  in rural areas, and/or if nighttime noise (between 10 p.m. and 7 a.m.) would exceed 45 dBA  $L_{EQ}$  in community areas and 40 dBA  $L_{EQ}$  in rural areas at NSLU outdoor use areas or building facades.

Project construction would not require activities known to generate excessive ground-borne vibration, such as pile driving or blasting. A possible source of vibration during general construction activities would be a vibratory roller used for gravel or pavement compaction. A large vibratory roller can create approximately 0.210 inch per second peak particle velocity (PPV) at 25 feet (Caltrans 2020). Specific locations where vibratory rollers could be used during Project construction have not been identified. However, construction vibration impacts would be potentially significant if a vibratory roller were used: within 15 feet of an occupied building (exceeding 0.4 inch per second PPV); within 15 feet of an occupied building (exceeding 0.4 inch per second PPV); within 18 feet of an older residential building; or within 60 feet of a fragile historical building, ruin, or ancient monument.<sup>1</sup> Mitigation Measure NOI-3 would require vibratory rollers to be used in static mode only (no vibrations) in proximity to occupied buildings or fragile structures. With implementation of Mitigation Measures NOI-1 through NOI-3, noise impacts would be less than significant.

#### Mitigation Measure NOI-1: Construction Hours

Construction activities shall not occur outside the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, or outside the hours of 8:00 a.m. and 5:00 p.m. on weekends, or at all on federally recognized holidays. The project applicant or construction contractor shall post a publicly visible sign at the entrance to the individual fiber project site listing the allowable construction hours and the contact information, including telephone numbers, to report noise violations to the County and the contractor.

#### Mitigation Measure NOI-2: Backup Generator Noise Control

Prior to approving individual fiber projects that require an emergency backup generator, the County shall verify project plans including the following:

- Where feasible, emergency backup generators shall be installed no closer than 60 feet from any NSLU (e.g., residences, schools, hospitals, convalescent homes, churches, libraries) in a community area, and no closer than 105 feet from any NSLU in a rural area. If it is not feasible to locate emergency generators 60 feet or more from NSLU in community areas or 105 feet or more from NSLUs in rural areas, the project proponent shall incorporate noise attenuating features (e.g., generator sound enclosures, noise barriers) into the equipment installation sufficient to reduce generator noise levels to 50 dBA  $L_{EQ}$  or less measured at outdoor use areas or building edges of the closest NSLU. Noise levels at NSLUs shall be verified by a qualified acoustical professional.

#### Mitigation Measure NOI-3: Vibratory Roller Use

---

<sup>1</sup> Equipment PPV = Reference PPV \* (25/D)<sup>n</sup> (in/sec), where Reference PPV is PPV at 25 feet, D is distance from equipment to the receiver in feet, and n = 1.1 (the value related to the attenuation rate through the ground); formula from Caltrans 2020.

---

Prior to issuing individual project construction approvals or permits, the County shall insure that construction documentation includes the following restrictions. Vibratory rollers shall be used in static mode only (no vibrations) within the following distances:

- Within 15 feet of any occupied building; and,
- Within 18 feet of any older residential building; and,
- Within 60 feet of a fragile historical building, ruin, or ancient monument.

## 5.2 Air Quality

### Air Quality

Consistency with the air quality plan is determined by whether the project would hinder implementation of control measures identified in the air quality plan or would result in growth of population or employment that is not accounted for in local and regional planning. The applicable air plan is the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan, developed by the air districts in the Sacramento region to bring the region into attainment for the ozone NAAQS and CAAQS. The plan is a joint project between the Sacramento Metropolitan Air Quality Management District (SMAQMD), EDCAQMD, and three other air districts in the Sacramento region (SMAQMD 2017). The plan includes the western portion of El Dorado County. The eastern portion of the County is located within the Lake Tahoe Basin. The Tahoe Regional Planning Agency (TRPA) does not have an air quality plan; however, air quality in the eastern portion of the County is addressed within the Air Quality sub-element of the *Land Use Element* of the TRPA Regional Plan (TRPA 2024) and the *Natural and Cultural Resources Element* of the City of South Lake Tahoe General Plan (City of South Lake Tahoe 2011). The Proposed Action's temporary construction emissions were estimated using CalEEMod. The Proposed Action's daily combined construction-generated emissions of ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> would not exceed EDCAQMD and SMAQMD thresholds. It is assumed that no more than 10 individual fiber project construction sites would be active at one time. Therefore, the Proposed Actions construction emissions would not violate any air quality standard or result in a considerable net increase of any criteria pollutant, nor conflict with or obstruct the implementation of the applicable air quality plans.

The Proposed Action would not result in an increase in traffic on the local roadways within the County such that it would impact the efficiency of roadways and/or intersections. As the Proposed Action would not create congestion or delay, there would be no circumstances in which carbon monoxide (CO) hotspots would occur. Therefore, the impact would be less than significant. Construction of individual fiber projects may require the use of diesel-powered equipment. Diesel exhaust can be a temporary source of odors. Due to the temporary and intermittent nature of construction methods, construction of individual fiber projects would not result in emissions leading to odors that would adversely affect substantial numbers of people. Therefore, broadband infrastructure is not considered to be a typical significant source of objectionable odors. Additionally, according to Rule 223-1 of the EDCAQMD, any activities associated with plans for grading and construction would require a Fugitive Dust Control Plan (FDCP), as required in Mitigation Measure AQ-1. Additionally, Mitigation Measure AQ-2 would require the preparation of an Asbestos Dust Mitigation Plan if NOA, serpentine, and/or ultramafic rock is discovered by the individual fiber project applicant, a professional geologist, or the Air Pollution Control Officer. With implementation of Mitigation Measures AQ-1 and AQ-2, potential air quality impacts would be less than significant.

---

#### Mitigation Measure AQ-1: Prepare a Fugitive Dust Mitigation Plan

The applicant of an individual fiber project shall submit a FDCP to the Air Pollution Control Officer of the EDCAQMD prior to the start of any construction activity for which a grading permit was issued by El Dorado County or incorporated city within El Dorado County. The FDCP shall implement all construction related BMP included in Appendix C-1, Tables C.4 and C.5 of the EDCAQMD Guide to Air Quality Assessment. The FDCP shall be prepared in compliance with EDCAQMD Rule 223-1. Construction activities shall not commence until the Air Pollution Control Officer has approved or conditionally approved the Fugitive Dust Control Plan.

#### Mitigation Measure AQ-2: Prepare an Asbestos Dust Mitigation Plan

If naturally occurring asbestos, serpentine, or ultramafic rock is discovered by the individual fiber project applicant, a professional geologist, or the Air Pollution Control Officer, then an Asbestos Dust Mitigation Plan shall be prepared and submitted to the Air Pollution Control Officer prior to construction. The Asbestos Dust Mitigation Plan shall be prepared in compliance with EDCAQMD Rule 223-2. Construction activities shall not commence until the Air Pollution Control Officer has approved or conditionally approved the Asbestos Dust Mitigation Plan. If a professional geologist has conducted a geologic evaluation of the property and determined that no serpentine or ultramafic rock, or asbestos, is likely to be found in the area disturbed, then the Air Pollution Control Officer shall provide an exemption from EDCAQMD Rule 223-2.

#### Greenhouse Gases

Construction and operation of the Proposed Action would not generate significant GHG emissions. The Proposed Action's temporary construction method greenhouse gas emissions were estimated using CalEEMod. The Proposed Action's annual construction emissions would total 3.0 MT CO<sub>2</sub>e in the year 2025 and would not exceed the SMAQMD GHG threshold. GHG emissions are addressed within El Dorado County General Plan, City of South Lake Tahoe General Plan, and the TRPA Regional Plan. In addition to these environmental documents, the City of South Lake Tahoe also approved the Climate Action Plan (CAP) on October 20, 2020. El Dorado County does not have an adopted CAP or similar program-level GHG reduction plan. The Proposed Action would be consistent with the El Dorado County General Plan, City of South Lake Tahoe General Plan, City of South Lake Tahoe CAP, and SMAQMD construction GHG thresholds.

### 5.3 Geology and Soils

The western slope of El Dorado County is transected by the Foothills Fault System, which is a complex, braided system of individual fault segments that extends for approximately 200 miles from Mariposa in the south to Lake Almanor in the north. The Lake Tahoe Basin is located in a region of active and potentially active faults including three faults located near the center of the City of South Lake Tahoe and a fourth located at its southern end. These faults have shown no history of fault ruptures and do not meet the criteria for building restrictions under the Alquist-Priolo Earthquake Fault Zoning Act. Based on the characteristics of the fault system in El Dorado County, the potential for significant seismic activity to occur in the County over the planning horizon is limited. Additionally, there are no Seismic Hazard Zones within the County as defined by the Seismic Hazards Mapping Program administered by the California Geological Survey (CGS). Therefore, the County is not considered to be at risk from liquefaction hazards and the potential for these secondary seismic effects is minimal. All new development would be subject

---

to current California Building Code (CBC) requirements, which would minimize the risk of structural failure of new buildings. Proper engineering, including compliance with the CBC, would minimize the risk to life and property.

Soil surveys typically rate shrink-swell potential in soils on a low, medium, and high basis. Generally, soils in western El Dorado County have a low to moderate shrink-swell potential. Soils located on jurisdictional lands on the western slope of El Dorado County consist of well-drained silt and gravelly loams. The majority of soils in western El Dorado County have a low to moderate shrink-swell potential; a minimal amount have been mapped as high potential. The remaining areas are typically rock formations and are not rated. In the Lake Tahoe Basin, the shrink-swell potential in soils is predominantly low. The County is characterized as having primarily steep slopes and there are many areas that are subject to erosion. Development on slopes greater than 25 percent tend to require engineering applications that act to reduce development potential. Construction of the individual fiber projects would require ground disturbance, including vegetation clearing, trenching, directional drilling, fill placement, pole placement excavation, and construction equipment staging. The disturbed soil could be exposed to wind and water erosion with subsequent loss of topsoil. Any projects that disturb over one acre of soil would be required to comply with the California Construction General Permit Order 2009-0009-DWQ, which requires implementation of a Stormwater Pollution Prevention Program (SWPPP) and specific best management practices (BMP) to prevent erosion.

The geology of El Dorado County is predominantly igneous (volcanic) in nature and the type of sedimentary deposits where palaeontologic remains might be present are minimal. While paleontological finds could occur in river and stream gravel deposits within the County, this possibility would not be expected and is remote. Consequently, paleontology is an area of research and concern generally not applicable to the County (County 2003). However, where individual fiber projects would require drilling through rock or excavation into paleontological soil, it is possible that intact, unique paleontological resources could be present within paleontologically sensitive rock formations and could be affected by the project. Because the project would primarily be implemented in disturbed or previously developed areas and the County is not considered sensitive for paleontological resources, impacts to paleontological resources would be minimal. Therefore, given the geology of the County and the location of individual fiber projects within disturbed or previously developed areas, the Proposed Action would not impact paleontological resources. Therefore, potential impacts related to geology and soils would be less than significant.

#### 5.4 Water Resources

Site clearing, grading, excavation, and construction activities have the potential to impact water quality through soil erosion and increased silt and debris discharged via surface runoff. Additionally, the use of construction materials such as fuels, solvents, and paints may present a risk to surface water quality. Temporary storage of construction materials and equipment in work or staging areas could create the potential for a release of hazardous materials, trash, or sediment to the storm drain system. Individual fiber projects that would result in disturbance of an area greater than one acre would be required to enroll for coverage under the Construction General Permit for the National Pollutant Discharge Elimination Construction General Permit (NPDES) program. The Construction General Permit requires that a project-specific SWPPP be prepared, and BMPs be implemented during construction of individual fiber projects. Typical BMPs would include diversion of runoff from disturbed areas, protective measures for sensitive areas, temporary soil stabilization measures, storm water runoff quality control measures, concrete waste management, watering for dust control, and installation of perimeter silt fences, as

---

needed. Therefore, implementation of the Proposed Action would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, nor result in substantial erosion on- or off-site.

As individual fiber projects would be constructed within existing County maintained ROW, public utility easements, and/or overhead public utility easements of record throughout the County, it is not likely that individual fiber projects would substantially increase the rate or amount of surface runoff in a manner which would result in flooding. After subsurface installation, any trenches or pits would be backfilled to pre-disturbance conditions. Due to the lack of extensive low-lying areas and a great deal of upland areas, the majority of the County is not subject to flooding. Additionally, individual fiber projects would comply with ordinances and construction standards of the County, TRPA, and cities of Placerville and South Lake Tahoe to prevent flooding within 100-year flood zones. Further, implementation of the Proposed Action would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems.

The western slope of El Dorado County does not have traditional groundwater basins. Located in the Lake Tahoe Basin, the Tahoe South Groundwater Subbasin is a sedimentary groundwater basin within the southern portion of the larger Tahoe Valley Groundwater Basin. Construction of individual fiber projects could involve minor use of water for dust control, which would be readily available from existing sources. Therefore, the Proposed Action is not anticipated to substantially decrease groundwater supplies. El Dorado Water Agency completed the 2019 Water Resource Development and Management Plan (WRDMP), which addresses the need for a reliable water supply, protection of water quality, and infrastructure enhancements in the County. The WRDMP includes a comprehensive assessment of current water resources, projections for future demand, and measures to improve water conservation and system resilience. The WRDMP includes regulatory components that build upon existing environmental programs and activities implemented by various County and city departments and focuses on land development activities subject to the County's permitting requirements. Individual fiber projects would comply with the WRDMP, as well as comply with ordinances and construction standards of the County, TRPA, and cities of Placerville and South Lake Tahoe. Therefore, potential impacts related to water resources would be less significant.

## 5.5 Biological Resources

As individual fiber projects would be primarily located within previously disturbed and/or developed areas (e.g., in ROW or public utility easement), it is unlikely that the Proposed Action would result in a substantial adverse effect on special-status species or their associated habitats, including USFWS designated critical habitats and/or NMFS essential fish habitat. However, individual fiber projects would be required to prepare a biological resources assessment (BRA) that would assess impacts to special-status species on the individual fiber project site, as outlined in Mitigation Measure BIO-1. With implementation of the recommended mitigation and/or avoidance measures included in the project-specific BRA to be prepared as required by Mitigation Measure BIO-1 below, impacts to special-status species would be less than significant. Additionally, if sensitive natural communities would be impacted by project implementation, then the impact would be potentially significant. With the implementation of Mitigation Measure BIO-2, potential impacts to jurisdictional waters, wetlands, and/or sensitive natural communities that may occur within the Project area would be reduced to less than significant. With the implementation of Mitigation Measure BIO-3, potential impacts to oak resources that may occur within the Project area would be reduced to less than significant. Therefore, implementation of Mitigation Measures BIO-1 through BIO-3 would reduce potential biological impacts to a less than

---

significant level.

#### Mitigation Measure BIO-1: Prepare a Site-Specific Biological Resources Assessment

Prior to approval of an individual fiber project, the applicant of an individual fiber project shall retain a qualified biologist to prepare a site-specific BRA. The BRA shall consist of a desktop review of relevant biological databases and online resources, a general biological reconnaissance survey, vegetation mapping, aquatic resources assessment, analysis of potential impacts to biological resources, and proposed measures to avoid and/or reduce potential impacts. If it is determined during the biological resources assessment that special-status species have the potential to occur within a project area, then site-specific mitigation measures should be recommended to avoid and/or reduce potential impacts. Potential measures for special-status species may include, but are not limited to, protocol-level surveys, nesting bird surveys, and other focused preconstruction surveys. If it is determined that special-status species are present within or adjacent to the project area, or if the project has potential to impact USFWS designated critical habitat and/or NMFS essential fish habitat, then the project proponent shall coordinate with CDFW and/or USFWS, as necessary, to determine avoidance and/or mitigation and/or measures to reduce potential impacts to a level that would be less than significant. Depending on site-specific conditions, agency involvement may be triggered through the regulatory permitting process or direct agency consultation.

#### Mitigation Measure BIO-2: Jurisdictional Delineation and Regulatory Permitting

If it is determined that impacts to jurisdictional waters or other sensitive natural communities cannot be avoided, then the project applicant of an individual fiber project shall apply for any necessary permits from the USACE, CDFW, and the RWQCB (e.g., Section 401/404 permits, CDFW Lake or Streambed Alteration Agreement, etc.). If necessary, a formal delineation of wetlands and “other waters” of the U.S. shall be prepared in accordance with USACE’s *Corps of Engineers Wetlands Delineation Manual* and appropriate regional supplements to determine the extent of aquatic resources and quantify impacts. Impacts to jurisdictional waters and/or sensitive natural habitat shall be mitigated in accordance with agency requirements.

#### Mitigation Measure BIO-3: Oak Resources Inventory

If it is determined during the biological resources assessment that an individual fiber project will result in impacts to oak resources, depending on the location of an individual fiber project, the County, incorporated cities, or TRPA may require mitigation for impacts to oak resources or regulated individual oak trees. Depending on the location of the individual fiber project, the County Community Planning and Building Department, City of Placerville Planning Division, City of South Lake Tahoe Planning Division, and/or TRPA may require an inventory of prematurely removed trees or canopy cover to determine the extent of the loss prior to approval of the individual fiber project. The inventory shall be prepared by a resource professional with expertise in oak woodlands ecology who is on the list of qualified consultants maintained by the County Community Planning and Building Department, City of Placerville Planning Division, City of South Lake Tahoe Planning Division, or TRPA. Resource professionals may include botanists, ecologists, wildlife biologists, and foresters.

## 5.6 Historic and Cultural Resources

Construction of individual fiber projects could require the aerial installation of fiber optic line on utility

---

poles in instances where constraints prevent the installation of subsurface conduit. The aerial installation of such fiber optic lines would entail the use of existing or newly constructed utility poles within the unincorporated areas of the County, incorporated cities of Placerville and South Lake Tahoe, or Caltrans' ROW. Broadband infrastructure could also be constructed on private and federal lands and/or connect to utility poles located within public or private utility easements. Such installations may introduce new visual elements to areas with concentrations of historic-era built environment cultural resources such as buildings and structures that comprise historic districts. Historic districts derive much of their significance from their ability to visually convey a sense of time and place from their architecture, street furniture, and streetscape corridor appearance. The use of existing or newly constructed utility poles for the collocation of fiber optic cable could change the visual signature of the poles and their vicinity. However, these collocations and new installations would be relatively minor additions to existing utility corridors in the County already populated with other utility infrastructure, including in and near historic districts and historical resources. The installation of these fiber optic lines would not diminish a built-environment resource's ability to convey its significance or justify the reasons for its qualification as a historical resource, two of the criteria of material impairment in the definition of a substantial adverse change in the significance of a historical resource, as defined by the National Historic Preservation Act (NHPA).

However, because archaeological cultural resources are non-renewable, project-related disturbance can impede or destroy their ability to convey their significance, which can embody scientific and/or traditional cultural value. Should that occur, an adverse effect on the environment could result. Mitigation Measure CUL-1 and CUL-2 contain measures that would identify potential archaeological resource impact scenarios, would seek to avoid impacts to such resources if feasible, and would mitigate those impacts that cannot be avoided through project design.

The County acknowledges that tribal cultural resources (TCRs) may be present within the County, and proposed individual fiber projects could cause a significant impact to such undocumented TCRs. Implementation of Mitigation Measures TCR-1 would reduce potential cultural impacts to a less than significant level.

#### Mitigation Measure CUL-1: Archaeological Cultural Resources Investigations

##### *Preconstruction Screening Identification*

Prior to each phase of individual fiber projects, including installation and/or use of appurtenant structures, unpaved staging areas, and fiber optic line, El Dorado County shall request a records search for all project footprints for construction activities that require ground disturbance in areas that have not been previously subject to such disturbance. For those areas of native, unpaved soil that have not been adequately surveyed for archaeological cultural resources in the past, the County shall require a pedestrian field survey by a qualified professional archaeologist. If archaeological cultural resources are identified as a result of that survey, the County shall implement the recommendations of the consulting archaeologist to avoid or substantially reduce the severity of impacts on such resources. For those areas that have been surveyed previously, the County shall abide by the recommendations of the professional archaeologist who conducted the original survey.

##### *Known Resource Conflicts*

In the event that the records search described above identifies archaeological cultural resources that would be subject to a project-related impact, the County shall evaluate the status of the resource. The



---

archaeological resource shall be assessed for significance through the implementation of a Phase II investigation by a qualified archaeologist. This may require some or all of the following:

- Development of a research design that guides assessments of site significance and scientific potential.
- Mapping and systematic collection of a representative sample of surface artifacts.
- Subsurface investigation through shovel test pits, surface scrapes, or 1-by-1 meter excavation units; a combination of such methods; or equivalent methods.
- Analysis of recovered material to determine significance pursuant to NEPA.
- Preparation of a report, including an evaluation of site significance, and recommendations for mitigation, if appropriate.
- Appropriate curation of collected artifacts.

If the resource is precontact in nature, the Phase II investigation shall be coordinated with descendant tribal communities. If the Phase II evaluation concludes that the archaeological resource does not qualify as a historical resource (PRC Section 21084.1) or unique archaeological resource (PRC Section 21083.2), then no further study or protection of the resource is necessary. If the resource does qualify as a historical or unique archaeological resource, then the County shall require the implementation of the Phase III approach described below.

A Phase III data recovery effort shall be implemented by the consulting archaeologist for those sites that are shown by the Phase II efforts to qualify as significant under NEPA. The County shall ensure that data recovery conducted to the level that reduces impacts to below the level of significance has been completed prior to individual fiber project implementation. The Phase III data recovery program shall include all or a combination of the following methods:

- Development of a research design to identify important research questions that may be answered through a systematic study of the resource.
- Mapping and systematic collection of surface artifacts, possibly complete data recovered depending on site size.
- Subsurface investigation through methods such as controlled hand-excavation units, machine excavations, deep testing, or a combination of methods. When applicable, other techniques, such as geophysical testing, may be warranted.
- Analysis of recovered material through visual inspection and chemical analysis when applicable.
- Preparation of a report.
- Appropriate curation of collected artifacts.

---

If the resource is precontact in nature, the Phase III investigation shall be coordinated with descendant tribal communities.

#### Mitigation Measure CUL-2: Inadvertent Discovery of Archaeological Cultural Resources

In the event that cultural resources are exposed during ground-disturbing activities, construction activities shall be halted within 100 feet of the discovery. Cultural resources could consist of but are not limited to stone, bone, wood, or shell artifacts, or features, including hearths, structural remains, or historic-era dumpsites. If the resources cannot be avoided during the remainder of construction, a consulting archaeologist who meets the Secretary of the Interior's *Professional Qualifications Standards* for archaeology shall assess the resource and provide appropriate management recommendations. The County shall implement those recommendations to avoid or substantially reduce the severity of impacts on significant resources.

#### Mitigation Measure TCR-1: Archaeological Treatment and Tribal Consultation

In the event that potential TCRs are exposed during ground-disturbing activities, construction activities (e.g., grading, grubbing, or vegetation clearing) shall be halted in the immediate vicinity of the discovery. An archaeologist who meets the Secretary of the Interior's *Professional Qualifications Standards* shall then be retained to evaluate the resource's significance under NEPA in direct coordination with tribal members who would provide traditionally based cultural knowledge as a basis for collaboratively assessing said significance. If the discovery proves to be significant, additional work and mitigation measures, such as those listed in Mitigation Measures CUL-1 and CUL-2, as deemed appropriate by the tribal organization consulting on the find. Such mitigation may include avoidance, data recovery excavation, or traditional ethnographic research into the cultural importance of the find to contemporary descendant communities.

## 5.7 Aesthetic and Visual Resources

Scenic vistas are defined as expansive views of highly valued landscapes from publicly accessible viewpoints. The construction of individual fiber projects would have the potential to affect scenic vistas if new or intensified development blocked views of areas that provide or contribute to such vistas. Potential impacts could include blocking views of a scenic vista from such publicly accessible vantage points or the alteration of the overall scenic vista itself. Portions of U.S. 50 and SR 89 within El Dorado County are designated as State Scenic Highways, and SR 49 is eligible for designation as a State Scenic Highway. The County has two vista points, both located along SR 89, that have been officially designated by Caltrans. There are no National Wild and Scenic Rivers in the County. Construction activities would result in temporary visual changes for sensitive viewer groups (e.g., residents, recreation users). Construction activities would occur between 7:00 a.m. and 7:00 p.m. on weekdays and would not occur at night. As construction activities would be short-term and temporary, the Proposed Action would not permanently or substantially obstruct views from scenic vistas.

The installation of new underground fiber conduit or fiber optic line in existing conduit would not be visible and would therefore have no substantial adverse effect on scenic vistas. However, individual fiber projects could be installed overhead on existing or newly constructed utility poles within viewsheds of the designated Emerald Bay/Vikingsholm and Christmas Valley vista points located along SR 89. Although many of the roadways within the County are currently lined with tall vertical features (e.g., mature trees, utility poles, streetlights, and roadway signs) and horizontal features (e.g., building and

---

pavement edges, fences, and utility lines), scenic vistas in the County could be affected by the operation of aboveground individual fiber projects located within the viewshed of the scenic vista. With implementation of Mitigation Measure AES-1, potential aesthetic impacts would be reduced to less than significant.

#### Mitigation Measure AES-1: Visual Impact Assessment

For any individual fiber project proposed within the viewshed of a designated scenic vista, eligible State Scenic Highway, or designated State Scenic Highway, the project applicant shall prepare a VIA for Lead Agency review and approval. The VIA shall be prepared by a qualified professional with experience in visual resource analysis. The VIA shall evaluate the potential impacts of the project on scenic resources, including but not limited to consideration of aesthetic values, visual quality, and the character of the surrounding landscape. The VIA shall include the following components:

- Baseline Conditions: Documentation of existing visual conditions, including photographs, renderings, and/or other visual tools to establish the project site's current view and its relationship to surrounding scenic resources.
- Visual Simulations: Preparation of photo-realistic visual simulations depicting the project as proposed from key public viewpoints, including those within the scenic vista or from the State Scenic Highway.
- Impact Analysis: Identification of potential impacts on scenic vistas and resources, using thresholds of significance established under NEPA or applicable local policies.
- Design Recommendations or Mitigation Measures: Identification of feasible design measures or project-specific mitigation measures to avoid, minimize, and/or reduce potentially significant visual impacts. These measures may include, but are not limited to:
  - Modifications to project design, height, massing, and/or orientation.
  - Use of landscaping, vegetative screening, and/or earthworks to soften visual impacts.
  - Use of non-reflective and/or neutral-colored materials to reduce visual contrast.
  - Adjustment of lighting design to prevent glare and/or light trespass into sensitive areas.

All recommendations and mitigation measures identified in the VIA and approved by the Lead Agency shall be incorporated into project plans and specifications before project approval.

## 5.8 Land Use

The Proposed Action area includes the unincorporated areas of the County and the incorporated cities of Placerville and South Lake Tahoe; as such, there are various general plan land use designations and zoning designations within the County. The majority of future broadband infrastructure would be constructed within the typical roadway cross-section within the unincorporated areas of the County, the incorporated cities of Placerville and South Lake Tahoe, or Caltrans' ROW. Broadband infrastructure could also be constructed on private disturbed land and federal land. Public and private roads are currently designated in the cities' and County's general plans, zoning codes, and ordinances to accommodate utility infrastructure. Prior to issuance of all applicable permits, individual fiber projects would be required to demonstrate compliance with all applicable laws, regulations, policies, and

---

ordinances.

The Proposed Action would expand access to fiber optic broadband technology and connect numerous communities in the County. Implementation of the Proposed Action would help attract individual ISPs to bring broadband infrastructure and reliable connectivity to the County for increasing public health and safety, as well as for economic development and quality of life reasons. The Proposed Action would not develop any new major roadways or physical features or alter existing roadways through existing residential neighborhoods or other communities. Although some temporary construction-related traffic disturbances could occur, the Proposed Action would not permanently divide an established community. Therefore, land use impacts would be less than significant.

## 5.9 Infrastructure

Future fiber optic infrastructure could follow other utility installations; therefore, it is likely that the ground along these alignments has been previously disturbed by prior utility work. The installation of broadband infrastructure would not interfere with the continuation of existing aboveground uses after construction is completed. During construction, it is anticipated that portable toilets could be provided for workers and waste would be hauled to an approved facility for treatment/disposal. As wastewater associated with portable toilets would be a temporary influx, the Proposed Action would not exceed wastewater treatment requirements of the CVRWQCB or the LRWQCB and no new wastewater treatment facilities, or expansion of such facilities, would be required. Construction of individual fiber projects could involve minor use of water for fugitive dust control, which would be readily available from existing sources. Operation of the fiber optic facilities would not require additional water supplies as the projects would not use water.

Further, construction of individual fiber projects could occur in areas with existing stormwater drainage facilities. Once fiber optic conduits are installed, the ground surface along the individual fiber optic line alignments would be restored to its existing condition (paved or unpaved). Therefore, the amount of pervious and impervious surfaces would not be significantly altered upon completion of individual fiber projects. As such, the Proposed Action would not require new or expanded stormwater facilities. Additionally, installation of the fiber optic lines would not require the use of electricity or natural gas for construction or operation. No new or expanded electric power or natural gas utilities would be required.

CALGreen mandates locally permitted construction and demolition projects to recycle and/or salvage for reuse a minimum 65 percent of the nonhazardous construction and demolition debris generated during construction activities (CALGreen Sections 4.408, 5.408, 301.1.1 and 301.3). El Dorado County Solid Waste and Hazardous Materials Division is responsible for the comprehensive planning of solid waste reduction, recycling, and resource recovery in El Dorado County, and is responsible for ensuring that solid waste disposal services meet State and federal mandates for integrated waste management. Construction of individual fiber projects would generate minimal waste, which could include the packaging of fiber optic lines, asphalt, and vegetation removal. However, the Proposed Action would not adversely affect the jurisdiction's abilities to comply with the State waste diversion requirements. Therefore, the Proposed Action would not exceed State or local solid waste standards or infrastructure capacity, nor would it fail to comply with solid waste reduction goals. Therefore, potential impacts related to infrastructure would be less than significant.

## 5.10 Socioeconomic Resources

---

Through use of a U.S. Department of Commerce, Economic Development Administration technical assistance and planning grant, El Dorado County conducted a Broadband Needs Assessment and Feasibility Study in 2017. According to the preliminary engineering report, numerous areas in the County lacked sufficient broadband service, and much of the County does not have access to the minimum definition of broadband services of 25/3 Mbps. Per the State of California's definition, areas with less than existing 25/3 Mbps are considered "unserved" and areas with less than existing 100/20 Mbps are considered "underserved". These unserved, or even underserved, populations in California are effectively excluded from a utility critical to quality of life. The Proposed Action would help attract broadband infrastructure investors to bring broadband service to a County in need of reliable connectivity health and safety, economic, and quality of life reasons. Therefore, potential socioeconomic resource impacts would be less than significant.

### 5.11 Human Health and Safety

The Proposed Action would not require long-transport, use, or disposal of hazardous materials; however, small quantities of hazardous materials may be stored, used, and/or handled during construction activities as part of the installation of fiber optic lines for individual fiber projects. Construction activities would mainly involve the use of hazardous materials such as fuels, lubricants, and solvents typically associated with construction equipment and vehicles. These materials are commonly used during construction and are not acutely hazardous. Operation of either underground or aboveground fiber optic conduit would not require long-transport, use, or disposal of hazardous materials; however, small quantities of hazardous materials may be used or handled during routine maintenance checks. Project applicants, builders, and contractors for individual fiber projects would be required to use, store, and transport hazardous materials in accordance with local, State, and federal regulations, including Cal/OSHA and DTSC requirements and manufacturer's instructions, during individual fiber project construction and operation. Transportation of hazardous materials on area roadways is also regulated by the CHP and Caltrans. Title 49 of the CFR, Hazardous Materials Regulations, includes requirements for the classification of materials, packaging, hazard communication, transportation, handling, hazardous materials employee training, and incident reporting. The California Department of Public Health regulates the haulers of hazardous waste. A valid registration issued by DTSC is required, unless specifically exempted, to transport hazardous wastes, and the California Department of Motor Vehicles requires all hazardous materials transporters to possess a commercial driver's license with a hazardous materials endorsement. Vehicle Code Section 31303 outlines general routing and parking restrictions for hazardous material and hazardous waste shipments, and the CHP publishes a list of restricted or prohibited highways. The Federal Motor Carrier Safety Administration also maintains a Hazmat Route Registry that describes the highway routes that must be utilized for the transport of certain classes of hazardous waste that is monitored and regulated by the administration's field office and the CHP.

According to the Federal Communications Commission (FCC) Office of Engineering and Technology, levels of radiofrequency (RF) energy routinely encountered by the general public are typically far below levels necessary to produce significant heating and increased body temperature (FCC 1999). There have been no conclusive results that have examined the possibility of a link between RF exposure and cancer, and other studies have failed to find evidence for a causal link to cancer or any related conditions (FCC 1999). As no conclusive or causal evidence of biological effects from RF energy has been determined, there is no evidence to suggest the proposed telecommunications utility poles would cause health problems to the surrounding communities.

---

Although the exact locations of fiber optic lines that would be constructed under individual fiber projects along roadways are not known at this time, installation and maintenance activities have the potential to occur within the boundaries of a known hazardous waste site or in areas with existing soil or groundwater contamination. Proposed fiber optic lines could be constructed in areas that have existing buried utilities that could contain hazardous waste. Fiber installation projects would also involve ground disturbance in the upper layers of soils along existing roadways in the County. Therefore, aerially deposited lead (ADL) may be present in soils along roadways where fiber optic line installation would occur. Excavation activities for fiber optic line installation or during operational maintenance activities could result in the accidental release of hazardous materials to the environment. Additionally, spills during on-site fueling of equipment during construction or an upset condition could result in a release of fuel or oils into the environment, including sensitive waterways within the vicinity of the proposed activity. In addition, subsurface hazardous materials may be encountered during construction such as ADL or asbestos. Procedures regarding spill prevention and response, as well as proper handling and disposal of hazardous materials are established by federal, State, and local regulations and would be implemented as part of individual fiber projects.

El Dorado County includes 15 school districts and 67 schools, as well as two higher learning institutions. Multiple elementary, middle, high schools, and higher learning institutions in the County are located near roadways. Although the exact locations of the individual fiber projects are not known at this time, some of these schools may be located within one-quarter mile of proposed fiber optic line installation activities. SWRCB's GeoTracker contains 496 records for El Dorado County. The database indicates there are 204 LUST Cleanup Sites, 41 Cleanup Program Sites, eight Land Disposal Sites, 133 WDR sites, 13 AGLand Domestic Wells, 86 Permitted UST Sites, three Single-Walled UST Sites, and two Non-Case Information Sites, most of which have been fully remediated. A total of 27 sites are currently open, including five LUST Cleanup Sites, 18 Cleanup Program Sites, and four Land Disposal Sites. DTSC also maintains a list of cleanup sites and hazardous waste permitted facilities on its EnviroStor database. The EnviroStor database has a total of 56 records for El Dorado County, none of which are active. Although the exact locations of the individual fiber projects are not known at this time, any development of individual fiber projects would be required to address contamination to prevent the release of hazardous materials in compliance with existing regulations and under the oversight of the applicable regulatory body. If it is determined that an individual fiber project may be located near or on a hazardous materials site, a Phase I Environmental Site Assessment (ESA) would be prepared to evaluate and address potential exposure.

El Dorado County has four airports: Cameron Airpark, Georgetown Airport, Placerville Airport, and Lake Tahoe Airport. The FAA requires runway protection zones and height limits on structures near airports to reduce risks to the public. In addition, the EDCTC and South Lake Tahoe ALUCPs designate Safety Zones for the areas surrounding the two airports and promote compatibility between the airports in El Dorado County and the land uses that surround them. The maximum height of an overhead utility pole would be 100 feet. The EDCTC and South Lake Tahoe ALUCPs would restrict the construction of aboveground utility lines and poles in areas where these structures could interfere with airport operations and safety. Additionally, the aboveground structures would not be tall enough to interfere with airport operations or require filing notice with the FAA in accordance with FAR Part 77 (i.e., would not exceed 200 feet in height).

Construction of individual fiber projects may require temporary lane closures, which have the potential to impede or interfere with emergency access routes or services. Coordination with local agencies (e.g., CHP, Caltrans, and local police and fire departments) for any necessary and temporary road closures

would be required, especially for construction within designated emergency access routes or in areas that would impede or otherwise affect evacuation and emergency access or services. To minimize or avoid lane closures that could interfere with traffic circulation during emergencies and disrupt access to private properties and roadways, each individual fiber project would be required to develop and implement a Traffic Control and Detour Plan consistent with an Encroachment Permit and code requirements of El Dorado County. Depending on the location of individual fiber projects, an Encroachment Permit application would be submitted to the County Department of Transportation, City of Placerville Engineering Department, City of South Lake Tahoe Development Services Department, or Caltrans District 3. Any construction on public Bureau of Land Management (BLM) land would require a ROW from the BLM, and any construction U.S. Forest Service (USFS) land would require a construction easement. Any construction on private land would require applicable building permits. Standard traffic control measures, specified in a Traffic Control and Detour Plan, would be employed for all construction activities along ROW, subject to review and approval by the applicable local, State, or federal agencies for work within their respective limits. Additionally, operation of the Proposed Action would introduce a wider and more reliable network throughout the County and would improve public health and safety through enabling faster emergency response, enhanced communication between emergency services, and access to critical information during disasters or emergencies. Therefore, operation of the Proposed Action would provide a benefit to emergency response and evacuations. Potential impacts related to human health and safety would be less than significant.

5.12 Cumulative Impacts

This analysis is based on a combination of the list and plan/projections approaches. As shown in Table 3, the cumulative projects list includes 78 approved, planned, or pending transportation projects in the County at the time of preparation of this EA. The cumulative projects list is focused on transportation-related projects, as it is anticipated that the majority of future broadband infrastructure would be installed within the typical roadway cross-section within the unincorporated areas of the County, incorporated cities of Placerville and South Lake Tahoe, or Caltrans right-of-way.

**Table 3. El Dorado County Cumulative Projects List**

No.	Project Name and Location	Project Type	Status
1	Canal Street Bicycle and Pedestrian Improvement Project Phase 1, City of Placerville, CA	Bike and Pedestrian	Approved (June 29, 2004)
2	Combella Road Sidewalk Project, City of Placerville, CA	Bike and Pedestrian	Approved (June 29, 2004)
3	Placerville Drive Bicycle and Pedestrian Facilities, City of Placerville, CA	Bike and Pedestrian	Approved (March 29, 2023)
4	Cameron Park Drive Bike Lanes, Cameron Park, CA	Bike and Pedestrian	Pending
5	Coach Lane Bike Lanes, Cameron Park, CA	Bike and Pedestrian	Pending
6	Country Club Drive Bike Lanes, Cameron Park, CA	Bike and Pedestrian	Pending
7	Diamond Springs Pedestrian Facility Improvements, Diamond Springs, CA	Bike and Pedestrian	Approved (September 11, 2023)
8	El Dorado Trail and Missouri Flat Road Phase 2 Bike/Pedestrian Overcrossing, Diamond Springs, CA	Bike and Pedestrian	Approved (December 14, 2023)
9	Henningsen Park/Lotus Road Class I Multi-Use Trail Improvements, Lotus, CA	Bike and Pedestrian	Pending

No.	Project Name and Location	Project Type	Status
10	Jacquier Road Bike Lanes, Smithflat, CA	Bike and Pedestrian	Pending
11	La Canada Drive and Gateway Drive Pedestrian/Bicycle Improvements, Cameron Park, CA	Bike and Pedestrian	Pending
12	Lotus Road Bike Lanes, Lotus, CA	Bike and Pedestrian	Pending
13	Marshall Road Bike Lanes, Garden Valley, CA	Bike and Pedestrian	Pending
14	Meder Road Bike Lanes, Cameron Park, CA	Bike and Pedestrian	Pending
15	Missouri Flat Road Bike Lanes Phase 1 and 2, Diamond Springs, CA	Bike and Pedestrian	Approved (June 23, 2020)
16	Mother Lode Drive Bike Lanes, Diamond Springs, CA	Bike and Pedestrian	Planned
17	Old Bass Lake Rd – El Dorado Hills to Bass Lake Connection, between El Dorado Hills and US 50, CA	Bike and Pedestrian	Planned
18	Palmer Drive Bike Path Connection, Shingle Springs, CA	Bike and Pedestrian	Planned
19	Pleasant Valley Road Bike Lanes Phase A, between Diamond Springs and Pleasant Valley, CA	Bike and Pedestrian	Planned
20	Ponderosa Road Bicycle and Pedestrian Improvements, Diamond Springs, CA	Bike and Pedestrian	Approved (August 22, 2024)
21	Western Placerville Interchanges Phase 2.3, City of Placerville, CA	Road and Highway Capacity	Approved (August 21, 2024)
22	Bass Lake Road Widening, Cameron Park, CA	Road and Highway Capacity	Approved (October 1, 2018)
23	Cameron Park Drive Widening – Palmer Drive to Sudbury Road, Cameron Park, CA	Road and Highway Capacity	Approved (April 12, 2018)
24	Country Club Drive Extension – Silva Valley Parkway to Tong Road, El Dorado Hills, CA	Road and Highway Capacity	Planned
25	Diamond Springs Parkway – Phase 1B, Diamond Springs, CA	Road and Highway Capacity	Approved (July 1, 2024)
26	US 50/El Dorado Hills Blvd Interchange Phase 2B – Eastbound Ramps, El Dorado Hills, CA	Road and Highway Capacity	Approved (February 26, 2012)
27	White Rock Road Widening – Windfield Way to Sacramento County Line, El Dorado Hills, CA	Road and Highway Capacity	Planned
28	ED 50 Apple Hill Pavement Rehab, along US 50 between Placerville and Pollock Pines, CA	Road Maintenance and Rehabilitation	Planned
29	ED 50 CAPM, along US between Riverton and Strawberry, CA	Road Maintenance and Rehabilitation	Approved (October 22, 2024)
30	ED 50 Echo Summit pavement rehab, along US 50 from Phillips to Meyers, CA	Road Maintenance and Rehabilitation	Planned
31	ED 50 Riverton Drainage rehab, along US 50 from Pollock Pines to Kyburz, CA	Road Maintenance and Rehabilitation	Planned
32	ED 50 Shingle Springs Pavement Rehab, along US 50 from Cameron Park to Shingle Springs, CA	Road Maintenance and Rehabilitation	Planned
33	Placerville CAPM, along US 50 between Five Mile Terrace and Camino, CA	Road Maintenance and Rehabilitation	Approved (October 22, 2024)
34	Route 49 El Dorado County, City of Placerville, CA	Road Maintenance and Rehabilitation	Pending
35	SR 193 Cool Pavement Rehabilitation, along SR 193 between SR 49/SR 193 junction and Pilgram Road, Cool, CA	Road Maintenance and Rehabilitation	Planned
36	SR 193 Georgetown Pavement Rehabilitation, along SR 193 between Georgetown and the City of Placerville, CA	Road Maintenance and Rehabilitation	Planned



No.	Project Name and Location	Project Type	Status
37	SR 49 Pavement Rehabilitation Phase A, along SR 49 in Diamond Springs, CA	Road Maintenance and Rehabilitation	Planned
38	SR 49 Pavement Rehabilitation Phase B, along SR 49 from Pilot Hill to Auburn (Placer County), CA	Road Maintenance and Rehabilitation	Planned
39	US 50 Point View Dr Landscape Rehabilitation, along US 50 south of Smithflat, CA	Road Maintenance and Rehabilitation	Planned
40	US 50 Rehab Cambridge Rd to El Dorado Rd, along US 50 between Shingle Springs and Diamond Springs, CA	Road Maintenance and Rehabilitation	Planned
41	Canal Street Bicycle and Pedestrian Improvement Project Phase 2, City of Placerville, CA	Road Maintenance and Rehabilitation	Pending
42	Clay Street at Hangtown Creek Bridge, City of Placerville, CA	Road Maintenance and Rehabilitation	Pending
43	Placerville Drive at Hangtown Creek Bridge Replacement, City of Placerville, CA	Road Maintenance and Rehabilitation	Planned
44	Bass Lake Road at Bridlewood Roundabout, El Dorado Hills, CA	Road Maintenance and Rehabilitation	Pending
45	Bucks Bar Road/North Fork Cosumnes River Bridge Replacement, Somerset, CA	Road Maintenance and Rehabilitation	Approved (October 30, 2024)
46	El Dorado Hills Boulevard Overlay Project, El Dorado Hills, CA	Road Maintenance and Rehabilitation	Pending
47	Green Valley Road at Mound Springs Creek Bridge Rehabilitation, between Greenstone and US 50, CA	Road Maintenance and Rehabilitation	Approved (May 9, 2018)
48	Mosquito Road/South Fork American River Bridge Replacement, Mosquito, CA	Road Maintenance and Rehabilitation	Approved (February 28, 2020)
49	Mount Murphy Road/South Fork American River Bridge Replacement, Coloma, CA	Road Maintenance and Rehabilitation	Approved (May 19, 2022)
50	Newtown Road/South Fork Weber Creek Bridge Rehab, Newtown, CA	Road Maintenance and Rehabilitation	Approved (December 19, 2018)
51	Oak Hill Road/Squaw Hollow Creek Bridge Replacement, southeast of Diamond Springs	Road Maintenance and Rehabilitation	Approved (January 12, 2017)
52	SR 49/193 Intersection Control Improvements – Roundabout, Cool, CA	Road System Management and Operations	Planned
53	US 50 Broadway Eastbound Exit Signalization and Ramp Lengthening, City of Placerville, CA	Road System Management and Operations	Planned
54	US 50 Trip to Green, City of Placerville, CA	Road System Management and Operations	Pending
55	Wiltse Road Intersection Improvements, City of Placerville, CA	Road System Management and Operations	Planned
56	Clear Creek Road Scour Mitigation, Pleasant Valley, CA	Road Maintenance and Rehabilitation	Approved (November 12, 2019)
57	Cosumnes Mine Bridge, between Happy Valley and Grizzly Flats, CA	Road Maintenance and Rehabilitation	Approved (March 8, 2018)
58	El Dorado Hills Boulevard and Saratoga Way Turn Lanes, El Dorado Hills, CA	Road and Highway Capacity	Approved (October 17, 2022)

No.	Project Name and Location	Project Type	Status
59	Enterprise Drive Signalization, Diamond Springs, CA	Road System Management and Operations	Pending
60	Forni Road at Pleasant Valley Road/Hwy 49 Realignment, El Dorado, CA	Road System Management and Operations	Pending
61	Green Valley Road at Indian Creek Bridge Replacement, between Greenstone and US 50, CA	Road Maintenance and Rehabilitation	Approved (May 9, 2018)
62	Green Valley Road at Loch Way Intersection Improvement Project, El Dorado Hills, CA	Road System Management and Operations	Pending
63	Guardrail Replacement, Mt. Aukum Rd, Cameron Park Drive, Bass Lake Road, Salmon Falls Road, CA	Road Maintenance and Rehabilitation	Planned
64	Hollow Oak Drive at Bass Lake Road Turn Pocket, between El Dorado Hills and Bass Lake Road, CA	Road System Management and Operations	Approved (November 28, 2024)
65	Industrial Drive Signalization and Realignment, Diamond Springs, CA	Road System Management and Operations	Pending
66	Latrobe Connection, El Dorado Hills, CA	Road System Management and Operations	Pending
67	Robert J. Mathews Parkway at Golden Foothill Parkway Roundabout, El Dorado Hills, CA	Road System Management and Operations	Pending
68	US 50/Ponderosa Road Interchange Phase 1A - North Shingle Road Realignment, Shingle Springs, CA	Road System Management and Operations	Planned
69	US 50/Ponderosa Road Interchange Phase 1B - Durock Road Realignment, Shingle Springs, CA	Road System Management and Operations	Planned
70	Wentworth Springs Road Pavement Rehabilitation, Eldorado National Forest, southwest of Loon Lake, CA	Road Maintenance and Rehabilitation	Approved (August 22, 2019)
71	Apache Avenue/US Highway 50 Intersection Improvement Project, Meyers, CA	Road System Management and Operations	Approved (March 11, 2022)
72	Pioneer Trail/US Highway 50 Intersection Safety Improvement Project, City of South Lake Tahoe, CA	Road System Management and Operations	Approved (February 18, 2021)
73	Fallen Leaf Road Pavement Rehabilitation Project, Fallen Leaf, CA	Road Maintenance and Rehabilitation	Pending
74	Lake Tahoe Boulevard Class 1 Bicycle Trail, City of South Lake Tahoe, CA	Bike and Pedestrian	Approved (July 2, 2021)
75	San Bernardino Class I Bike Trail Project, Meyers, CA	Bike and Pedestrian	Approved (March 25, 2022)
76	Apache Avenue Pedestrian Safety and Connectivity Project, Meyers, CA	Bike and Pedestrian	Approved (March 11, 2022)
77	Meeks Creek Bridge Replacement Project, Meeks Bay, CA	Road Maintenance and Rehabilitation	Pending
78	South Tahoe CAPM, City of South Lake Tahoe, CA	Road Maintenance and Rehabilitation	Approved (July 1, 2024)

Table 4, Comparison of the Potential Environmental Impact by Alternative, describes the potential cumulative impacts for the Proposed Action in comparison to the alternatives.

**Table 4: Comparison of the Potential Environmental Impacts by Alternative**

Alternative	Potential Impacts
<b>Soils and Geologic Hazards</b>	
Proposed Action	<p>Cumulative soil and geologic hazard impacts would occur when the Proposed Action, in combination with other projects or plans/projections in El Dorado County, would directly or indirectly cause adverse effects involving fault rupture, strong seismic ground shaking, seismic-related ground failure, or landslides; result in soil erosion or the loss of topsoil; be located on unstable soil that could result in landslide, lateral spreading, subsidence, liquefaction, or collapse; be located on expansive soil; have soils incapable of adequately supporting septic tanks; or directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p> <p>Individual fiber projects under the Proposed Action could be constructed concurrently with, and in proximity to, other transportation projects in El Dorado County. While geotechnical impacts may be associated with other developments in proximity to the Proposed Action, several potential impacts (e.g., unstable soils, expansive soils, liquefaction, soil erosion, and paleontological resources) are site specific, and would be addressed on a project-specific basis. Seismically induced geologic hazards and unstable soil hazards are site-specific and depend on local conditions as well as the characteristics of the overlying improvements.</p> <p>Seismic impacts are a regional issue and are addressed through compliance with applicable codes and design standards. Thus, individual transportation projects (of the type included in Table 3) do not increase the potential for seismic events, as the effects would be based on site-specific underlying conditions and proximity to the source of the seismic event. Therefore, implementation of the Proposed Action would not contribute to a greater cumulative impact to seismic ground shaking or fault rupture.</p> <p>Implementation of site-specific SWPPPs would reduce the potential for erosion hazards from construction of broadband infrastructure as a result of the Proposed Action. Impacts from erosion or loss of topsoil for other cumulative projects may require site-specific analysis to determine the soil’s permeability, slope, angle and length, extent of groundcover, and human influence on the sites; however, all projects in the cumulative setting would be required to adhere to similar erosion control requirements. Construction of the Proposed Action, and other cumulative projects in the area, would be required to adhere to all federal, State, and local programs, requirements, and policies pertaining to building safety and construction permitting.</p> <p>Paleontology is an area of research and concern generally not applicable to the County. Therefore, given the geology of the County and the location of individual fiber projects within disturbed or previously developed areas, potential impacts to paleontological resources from construction of the Proposed Action would be less than cumulatively considerable.</p>

Alternative	Potential Impacts
No Action Alternative	With the No Project Alternative, no construction, excavation, or ground disturbance would occur. Because no changes would occur, the No Project Alternative would not expose people or structures to adverse seismic impacts, result in substantial erosion or loss of topsoil, or expose infrastructure to or cause geologic hazards. Similarly, this alternative would not result in the loss of a unique paleontological resource or geologic feature or result in the loss of availability of a known mineral resource or locally important mineral resource recovery site.
Alternative 1	As compared to the Proposed Action, this alternative would have similar risks of exposing people or structures to landslides, lateral spreading, subsidence, liquefaction, soil erosion, or seismic impacts as construction would occur within County limits. However, the addition of only utility poles under this alternative, including utility pole installation, may not be feasible in some locations in the County due to the rocky subsurface conditions that would make it nearly impossible to reach the boring depth required for the poles.
Alternative 2	As compared to the Proposed Action, this alternative would have similar risks of exposing people or structures to landslides, lateral spreading, subsidence, liquefaction, soil erosion, or seismic impacts as construction would occur within County limits. However, the addition of only underground fiber optic conduit under this alternative, including Horizontal Directional Drilling, Plowing, Trenching, Microtrenching, and Line Installation, may not be feasible in some locations in the County due to the rocky subsurface conditions that would make it nearly impossible to reach the boring depth required for the conduit.
Alternative 3	As compared to the Proposed Action, this alternative would have similar risks of exposing people or structures to landslides, lateral spreading, subsidence, liquefaction, soil erosion, or seismic impacts as construction would occur within County limits. However, as less construction and ground disturbance would occur under this alternative, this alternative would result in a slightly reduced impact related to soil erosion.
Vegetation	
Proposed Action	<p>Cumulative biological impacts would occur when the Proposed Action, in combination with other projects and plans/projects in El Dorado County, would directly or indirectly result in an adverse impact(s) to a special-status species, on a sensitive natural community, to jurisdictional aquatic resources, wildlife movement corridors and nursery sites, or conflict with local policies/ordinances protecting biological resources or an HCP/NCCP. Although impacts to biological resources are site specific, project specific impacts contribute to a continued loss of biological resources throughout the range of the species or other biological resource being impacted. The cumulative context for biological resources is based on projects located within El Dorado County that would impact vegetation communities and species similar to those impacted by the Proposed Action, as listed in Table 3, El Dorado County Cumulative Projects List. The cumulative impacts analysis is based on a combination of the list and regional growth projections incorporated into the County’s General Plan.</p> <p>The proposed broadband infrastructure is anticipated to be within previously disturbed and/or developed areas (e.g., in ROW or public utility easements). However, given that the exact alignment of the future broadband infrastructure is currently unknown, there is the potential that some of the locations for future individual fiber components may support sensitive biological resources. In general, a project’s potential impacts related to sensitive biological resources depend on the specific project site and whether it supports sensitive natural communities, special-status species, and/or aquatic resources. As discussed above, the Proposed Action would have potential impacts to special-status species, sensitive natural communities, or State or federally protected aquatic resources and/or conflict with local policies which would be reduced to less than significant levels by the implementation of Mitigation Measures BIO-1 through BIO-3.</p>

Alternative	Potential Impacts
	<p>Numerous transportation projects are planned or programmed in El Dorado County, including various road maintenance and rehabilitation, road system management and operations, and bike and pedestrian infrastructure improvement projects. The projects listed as part of this cumulative analysis would also be subject to NEPA review and would be required to comply with any mitigation measures identified as necessary to reduce potential impacts to biological resources. Therefore, the Proposed Action is not expected to make a cumulatively considerable contribution to losses of sensitive biological resources in El Dorado County.</p>
No Action Alternative	<p>Because no construction, excavation, or ground disturbance would occur under the No Project Alternative, there would be no effects on biological resources. The No Project Alternative would not affect special-status species or habitat, or riparian habitat or other sensitive natural communities. Nor would it degrade wetlands, interfere with wildlife movement corridors or nursery sites, or conflict with local ordinances or policies.</p>
Alternative 1	<p>Similar to the Proposed Action, individual fiber projects would be required to prepare a BRA, as outlined in Mitigation Measure BIO-1 to reduce impacts to a less than significant level. Additionally, if sensitive natural communities would be impacted by project implementation, the project proponent would apply to the necessary permits from the USACE, CDFW, and the RWQCB as outlined in Mitigation Measure BIO-2 and would prepare an oak resources inventory as outlined in Mitigation Measure BIO-3. Similar to the Proposed Action if the individual fiber project would impact federally protected aquatic resources, Mitigation Measure BIO-2 would be implemented, and if individual fiber projects would impact the movement of wildlife species or wildlife corridors, Mitigation Measure BIO-1 would be implemented.</p>
Alternative 2	<p>Similar to the Proposed Action, individual fiber projects would be required to prepare a BRA, as outlined in Mitigation Measure BIO-1 to reduce impacts to a less than significant level. Additionally, if sensitive natural communities would be impacted by project implementation, the project proponent would apply to the necessary permits from the USACE, CDFW, and the RWQCB as outlined in Mitigation Measure BIO-2 and would prepare an oak resources inventory as outlined in Mitigation Measure BIO-3. Similar to the Proposed Action if the individual fiber project would impact federally protected aquatic resources, Mitigation Measure BIO-2 would be implemented, and if individual fiber projects would impact the movement of wildlife species or wildlife corridors, Mitigation Measure BIO-1 would be implemented.</p>
Alternative 3	<p>Similar to the Proposed Action, individual fiber projects would be required to prepare a BRA, as outlined in Mitigation Measure BIO-1 to reduce impacts to a less than significant level. Additionally, if sensitive natural communities would be impacted by project implementation, the project proponent would apply to the necessary permits from the USACE, CDFW, and the RWQCB as outlined in Mitigation Measure BIO-2 and would prepare an oak resources inventory as outlined in Mitigation Measure BIO-3. Similar to the Proposed Action if the individual fiber project would impact federally protected aquatic resources, Mitigation Measure BIO-2 would be implemented, and if individual fiber projects would impact the movement of wildlife species or wildlife corridors, Mitigation Measure BIO-1 would be implemented.</p>
Water Resources, Floodplains, and Fish	
Proposed Action	<p>Cumulative biological impacts would occur when the Proposed Action, in combination with other projects and plans/projects in El Dorado County, would directly or indirectly result in an adverse impact(s) to a special-status species, on a sensitive natural community, to jurisdictional aquatic resources, wildlife movement corridors and nursery sites, or conflict with local policies/ordinances protecting biological resources or an HCP/NCCP. Although impacts to biological resources are site specific, project specific impacts contribute to a continued loss of biological resources throughout the range of the species or other biological resource being impacted. The cumulative context for biological resources is based on projects located within El Dorado County that would impact vegetation communities and species similar to those impacted by the Proposed Action, as listed in Table 3, El Dorado County Cumulative Projects List. The cumulative impacts analysis is based on a combination of the list and regional growth</p>

Alternative	Potential Impacts
	<p>projections incorporated into the County’s General Plan.</p> <p>The proposed broadband infrastructure is anticipated to be within previously disturbed and/or developed areas (e.g., in ROW or public utility easements). However, given that the exact alignment of the future broadband infrastructure is currently unknown, there is the potential that some of the locations for future individual fiber components may support sensitive biological resources. In general, a project’s potential impacts related to sensitive biological resources depend on the specific project site and whether it supports sensitive natural communities, special-status species, and/or aquatic resources. As discussed above, the Proposed Action would have potential impacts to special-status species, sensitive natural communities, or State or federally protected aquatic resources and/or conflict with local policies which would be reduced to less than significant levels by the implementation of Mitigation Measures BIO-1 through BIO-3.</p> <p>Numerous transportation projects are planned or programmed in El Dorado County, including various road maintenance and rehabilitation, road system management and operations, and bike and pedestrian infrastructure improvement projects. The projects listed as part of this cumulative analysis would also be subject to NEPA review and would be required to comply with any mitigation measures identified as necessary to reduce potential impacts to biological resources. Therefore, the Proposed Action is not expected to make a cumulatively considerable contribution to losses of sensitive biological resources in El Dorado County.</p>
<p>No Action Alternative</p>	<p>Because no construction, excavation, or ground disturbance would occur under the No Project Alternative, the alternative would not affect hydrology and water quality. With no construction activities or new infrastructure, the No Project Alternative would not violate any water quality standards or degrade surface or groundwater quality, nor would it affect groundwater supply or result in substantial erosion, flooding, or runoff. The No Project Alternative would also not change the existing risk of the release of pollutants due to inundation for seiche or flood.</p>
<p>Alternative 1</p>	<p>As compared to the Proposed Action, this alternative may also alter existing drainage patterns which would result in erosion on- or off-site, increase surface runoff that would cause flooding or exceed stormwater drainage systems, or impede flood flows. Similar to the Proposed Action, if this alternative would disturb more than one acre of soil, a SWPPP with project specific BMPs will be required for each individual fiber project. Operation under this alternative would require occasional maintenance needs and all construction areas would be cleared, similar to the Proposed Action. As with the Proposed Action, this alternative could involve minor use of water for dust control during construction; however, it is not anticipated this alternative would require additional water supplies during operation as no population would be generated.</p>
<p>Alternative 2</p>	<p>As compared to the Proposed Action, this alternative may also alter existing drainage patterns which would result in erosion on- or off-site, increase surface runoff that would cause flooding or exceed stormwater drainage systems, or impede flood flows. Similar to the Proposed Action, if this alternative would disturb more than one acre of soil, a SWPPP with project specific BMPs will be required for each individual fiber project. Operation under this alternative would require occasional maintenance needs and all construction areas would be cleared, similar to the Proposed Action. As with the Proposed Action, this alternative could involve minor use of water for dust control during construction; however, it is not anticipated this alternative would require additional water supplies during operation as no population would be generated.</p>

Alternative	Potential Impacts
Alternative 3	<p>As compared to the Proposed Action, this alternative may alter existing drainage patterns which would result in erosion on- or off-site, increase surface runoff that would cause flooding or exceed stormwater drainage systems, or impede flood flows. Similar to the Proposed Action, if this alternative would disturb more than one acre of soil, a SWPPP with project specific BMPs will be required for each individual fiber project. Operation under this alternative would require occasional maintenance needs and all construction areas would be cleared, similar to the Proposed Action. As with the Proposed Action, this alternative could involve minor use of water for dust control during construction; however, it is not anticipated this alternative would require additional water supplies during operation as no population would be generated.</p>
<b>Wetlands</b>	
Proposed Action	<p>Cumulative biological impacts would occur when the Proposed Action, in combination with other projects and plans/projects in El Dorado County, would directly or indirectly result in an adverse impact(s) to a special-status species, on a sensitive natural community, to jurisdictional aquatic resources, wildlife movement corridors and nursery sites, or conflict with local policies/ordinances protecting biological resources or an HCP/NCCP. Although impacts to biological resources are site specific, project specific impacts contribute to a continued loss of biological resources throughout the range of the species or other biological resource being impacted. The cumulative context for biological resources is based on projects located within El Dorado County that would impact vegetation communities and species similar to those impacted by the Proposed Action, as listed in Table 3, El Dorado County Cumulative Projects List. The cumulative impacts analysis is based on a combination of the list and regional growth projections incorporated into the County’s General Plan.</p> <p>The proposed broadband infrastructure is anticipated to be within previously disturbed and/or developed areas (e.g., in ROW or public utility easements). However, given that the exact alignment of the future broadband infrastructure is currently unknown, there is the potential that some of the locations for future individual fiber components may support sensitive biological resources. In general, a project’s potential impacts related to sensitive biological resources depend on the specific project site and whether it supports sensitive natural communities, special-status species, and/or aquatic resources. As discussed above, the Proposed Action would have potential impacts to special-status species, sensitive natural communities, or State or federally protected aquatic resources and/or conflict with local policies which would be reduced to less than significant levels by the implementation of Mitigation Measures BIO-1 through BIO-3.</p> <p>Numerous transportation projects are planned or programmed in El Dorado County, including various road maintenance and rehabilitation, road system management and operations, and bike and pedestrian infrastructure improvement projects. The projects listed as part of this cumulative analysis would also be subject to NEPA review and would be required to comply with any mitigation measures identified as necessary to reduce potential impacts to biological resources. Therefore, the Proposed Action is not expected to make a cumulatively considerable contribution to losses of sensitive biological resources in El Dorado County.</p>
No Action Alternative	<p>Because no construction, excavation, or ground disturbance would occur under the No Project Alternative, there would be no effects on biological resources. The No Project Alternative would not affect special-status species or habitat, or riparian habitat or other sensitive natural communities. Nor would it degrade wetlands, interfere with wildlife movement corridors or nursery sites, or conflict with local ordinances or policies.</p>

Alternative	Potential Impacts
Alternative 1	<p>Similar to the Proposed Action, individual fiber projects would be required to prepare a BRA, as outlined in Mitigation Measure BIO-1 to reduce impacts to a less than significant level. Additionally, if sensitive natural communities would be impacted by project implementation, the project proponent would apply to the necessary permits from the USACE, CDFW, and the RWQCB as outlined in Mitigation Measure BIO-2 and would prepare an oak resources inventory as outlined in Mitigation Measure BIO-3. Similar to the Proposed Action, if the individual fiber project would impact federally protected aquatic resources, Mitigation Measure BIO-2 would be implemented.</p>
Alternative 2	<p>Similar to the Proposed Action, individual fiber projects would be required to prepare a BRA, as outlined in Mitigation Measure BIO-1 to reduce impacts to a less than significant level. Additionally, if sensitive natural communities would be impacted by project implementation, the project proponent would apply to the necessary permits from the USACE, CDFW, and the RWQCB as outlined in Mitigation Measure BIO-2 and would prepare an oak resources inventory as outlined in Mitigation Measure BIO-3. Similar to the Proposed Action, if the individual fiber project would impact federally protected aquatic resources, Mitigation Measure BIO-2 would be implemented.</p>
Alternative 3	<p>Similar to the Proposed Action, individual fiber projects would be required to prepare a BRA, as outlined in Mitigation Measure BIO-1 to reduce impacts to a less than significant level. Additionally, if sensitive natural communities would be impacted by project implementation, the project proponent would apply to the necessary permits from the USACE, CDFW, and the RWQCB as outlined in Mitigation Measure BIO-2 and would prepare an oak resources inventory as outlined in Mitigation Measure BIO-3. Similar to the Proposed Action, if the individual fiber project would impact federally protected aquatic resources, Mitigation Measure BIO-2 would be implemented.</p>
<b>Wildlife</b>	
Proposed Action	<p>Cumulative biological impacts would occur when the Proposed Action, in combination with other projects and plans/projects in El Dorado County, would directly or indirectly result in an adverse impact(s) to a special-status species, on a sensitive natural community, to jurisdictional aquatic resources, wildlife movement corridors and nursery sites, or conflict with local policies/ordinances protecting biological resources or an HCP/NCCP. Although impacts to biological resources are site specific, project specific impacts contribute to a continued loss of biological resources throughout the range of the species or other biological resource being impacted. The cumulative context for biological resources is based on projects located within El Dorado County that would impact vegetation communities and species similar to those impacted by the Proposed Action, as listed in Table 3, El Dorado County Cumulative Projects List. The cumulative impacts analysis is based on a combination of the list and regional growth projections incorporated into the County’s General Plan.</p> <p>The proposed broadband infrastructure is anticipated to be within previously disturbed and/or developed areas (e.g., in ROW or public utility easements). However, given that the exact alignment of the future broadband infrastructure is currently unknown, there is the potential that some of the locations for future individual fiber components may support sensitive biological resources. In general, a project’s potential impacts related to sensitive biological resources depend on the specific project site and whether it supports sensitive natural communities, special-status species, and/or aquatic resources. As discussed above, the Proposed Action would have potential impacts to special-status species, sensitive natural communities, or State or federally protected aquatic resources and/or conflict with local policies which would be reduced to less than significant levels by the implementation of Mitigation Measures BIO-1 through BIO-3.</p>



Alternative	Potential Impacts
	<p>Numerous transportation projects are planned or programmed in El Dorado County, including various road maintenance and rehabilitation, road system management and operations, and bike and pedestrian infrastructure improvement projects. The projects listed as part of this cumulative analysis would also be subject to NEPA review and would be required to comply with any mitigation measures identified as necessary to reduce potential impacts to biological resources. Therefore, the Proposed Action is not expected to make a cumulatively considerable contribution to losses of sensitive biological resources in El Dorado County.</p>
No Action Alternative	<p>Because no construction, excavation, or ground disturbance would occur under the No Project Alternative, there would be no effects on biological resources. The No Project Alternative would not affect special-status species or habitat, or riparian habitat or other sensitive natural communities. Nor would it degrade wetlands, interfere with wildlife movement corridors or nursery sites, or conflict with local ordinances or policies.</p>
Alternative 1	<p>Similar to the Proposed Action, individual fiber projects would be required to prepare a BRA, as outlined in Mitigation Measure BIO-1 to reduce impacts to a less than significant level. Additionally, if sensitive natural communities would be impacted by project implementation, the project proponent would apply to the necessary permits from the USACE, CDFW, and the RWQCB as outlined in Mitigation Measure BIO-2 and would prepare an oak resources inventory as outlined in Mitigation Measure BIO-3. Similar to the Proposed Action if the individual fiber project would impact federally protected aquatic resources, Mitigation Measure BIO-2 would be implemented, and if individual fiber projects would impact the movement of wildlife species or wildlife corridors, Mitigation Measure BIO-1 would be implemented.</p>
Alternative 2	<p>Similar to the Proposed Action, individual fiber projects would be required to prepare a BRA, as outlined in Mitigation Measure BIO-1 to reduce impacts to a less than significant level. Additionally, if sensitive natural communities would be impacted by project implementation, the project proponent would apply to the necessary permits from the USACE, CDFW, and the RWQCB as outlined in Mitigation Measure BIO-2 and would prepare an oak resources inventory as outlined in Mitigation Measure BIO-3. Similar to the Proposed Action if the individual fiber project would impact federally protected aquatic resources, Mitigation Measure BIO-2 would be implemented, and if individual fiber projects would impact the movement of wildlife species or wildlife corridors, Mitigation Measure BIO-1 would be implemented.</p>
Alternative 3	<p>Similar to the Proposed Action, individual fiber projects would be required to prepare a BRA, as outlined in Mitigation Measure BIO-1 to reduce impacts to a less than significant level. Additionally, if sensitive natural communities would be impacted by project implementation, the project proponent would apply to the necessary permits from the USACE, CDFW, and the RWQCB as outlined in Mitigation Measure BIO-2 and would prepare an oak resources inventory as outlined in Mitigation Measure BIO-3. Similar to the Proposed Action if the individual fiber project would impact federally protected aquatic resources, Mitigation Measure BIO-2 would be implemented, and if individual fiber projects would impact the movement of wildlife species or wildlife corridors, Mitigation Measure BIO-1 would be implemented.</p>
Cultural Resources	
Proposed Action	<p>Cumulative cultural resource impacts may occur when a series of actions leads to the loss of historically or archaeologically significant type of site, building, deposit, or tribal cultural resource. For example, while the loss of a single historic building may not be significant to the character of a neighborhood or streetscape, continued loss of such historical resources on a project-by-project basis could amount to a significant cumulative effect. With the implementation of Mitigation Measures CUL-1, CUL-2, and TCR-1, the Proposed Action would have less than significant impacts on unknown cultural resources.</p> <p>The analysis of cumulative impacts is based on impacts of the Proposed Action and the other projects and plans/projections in the County as listed in Table 3. The analysis of cumulative impacts to cultural resources is based on impacts of the Proposed Action plus the other</p>

Alternative	Potential Impacts
	<p>cumulative projects in the County. As such, each cumulative project that would be subject to NEPA would be required to assess its potential impacts to cultural resources. Mitigation measures conducted for each cumulative individual fiber project would ensure that impacts to cultural resources are minimized to the maximum extent feasible. Therefore, with implementation of Mitigation Measures CUL-1, CUL-2, and TCR-1, and the requirement for the other cumulative projects subject to NEPA to adopt similar measures, no cumulatively considerable impact to cultural resources would occur with approval of the Proposed Action.</p>
<p>No Action Alternative</p>	<p>No construction, excavation, or ground disturbance would occur under the No Project Alternative. Therefore, there would be no effects on historic resources, unique archeological resources, or tribal cultural resources. Because no construction would occur under the No Project Alternative, there would also be no risk of disturbing human remains. For these reasons, the No Project Alternative would have no impact on archeological, historical, or tribal cultural resources.</p>
<p>Alternative 1</p>	<p>Similar to the Proposed Action, installation of utility poles under this alternative would introduce a new visual element to areas with concentrations of historical built environment cultural resources such as buildings and structures that comprise historic districts. The use of existing or newly constructed utility poles for the collocation of fiber optic cable would change the visual signature of the poles and their vicinity. However, these collocations and new installations would be relatively minor additions to existing utility corridors in the County already populated with other utility infrastructure, including in and near historic districts and historical resources. The installation of these fiber optic lines, as proposed, would not diminish a built-environment resource’s ability to convey its significance or justify the reasons for its qualification as a historical resource, two of the criteria of material impairment in the definition of a substantial adverse change in the significance of a historical resource. Additionally, similar to the Proposed Action, individual fiber projects under this alternative could impede or destroy archaeological cultural resource’s ability to convey their significance, which can embody scientific and/or traditional cultural value. Mitigation Measure CUL-1 and CUL-2 would be implemented under this alternative, and under the Proposed Action, to mitigate or avoid archaeological cultural resource impact scenarios.</p> <p>Additionally, similar to the Proposed Action, under this alternative, Mitigation Measures TCR-1 would be required to be implemented to address the unanticipated discoveries of TCRs through tribal consultation procedures.</p>
<p>Alternative 2</p>	<p>As this alternative would not install utility poles, individual fiber project would not introduce a new visual element to areas with concentrations of historical built environment cultural resources such as buildings and structures that comprise historic districts. There would be no change in the visual signature of the vicinity. Therefore, this alternative could result in slightly less impact than the Proposed Action.</p> <p>Additionally, similar to the Proposed Action, individual fiber projects under this alternative could impede or destroy archaeological cultural resource’s ability to convey their significance, which can embody scientific and/or traditional cultural value. Mitigation Measure CUL-1 and CUL-2 would be implemented under this alternative, and under the Proposed Action, to mitigate or avoid archaeological cultural resource impact scenarios.</p> <p>Similar to the Proposed Action, under this alternative, Mitigation Measures TCR-1 would be required to be implemented to address the unanticipated discoveries of TCRs through tribal consultation procedures.</p>

Alternative	Potential Impacts
Alternative 3	<p>As this alternative would not install new utility poles, individual fiber project would not introduce a new visual element to areas with concentrations of historical built environment cultural resources such as buildings and structures that comprise historic districts. There would be no change in the existing visual signature of the vicinity. Therefore, this alternative could result in slightly less impact than the Proposed Action.</p> <p>Additionally, similar to the Proposed Action, individual fiber projects under this alternative could impede or destroy archaeological cultural resource’s ability to convey their significance, which can embody scientific and/or traditional cultural value. Mitigation Measure CUL-1 and CUL-2 would be implemented under this alternative, and under the Proposed Action, to mitigate or avoid archaeological cultural resource impact scenarios.</p> <p>Similar to the Proposed Action, under this alternative, Mitigation Measures TCR-1 would be required to be implemented to address the unanticipated discoveries of TCRs through tribal consultation procedures.</p>

## 6.0 Applicable Environmental Permits and Regulatory Requirements

**Table 5: Potential Applicable Statutory, Regulatory, and Other Requirements**

Potentially Applicable Requirement	Relevant Project Information
<b>All Resources</b>	
NEPA of 1969 42 U.S.C. § 4321 et seq.	An Environmental Assessment has been prepared in compliance with Federal NEPA requirements.
<b>Vegetation, Wildlife, and Fish</b>	
Endangered Species Act of 1973 16 U.S.C. § 1531 et seq.	This is applicable. This EA is evaluated at a programmatic level for the County as a whole. The objective of this EA is to achieve compliance with NEPA for the Proposed Action in advance such that individual fiber projects can take advantage of State and federal grant funding programs. Based on an individual fiber project footprint, regulatory permitting may be required. All required permits would be evaluated at the appropriate time.
Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) of 1976 16 U.S.C. 1801 et seq.	This is applicable. This EA is evaluated at a programmatic level for the County as a whole. The objective of this EA is to achieve compliance with NEPA for the Proposed Action in advance such that individual fiber projects can take advantage of State and federal grant funding programs. Based on an individual fiber project footprint, regulatory permitting may be required. All required permits would be evaluated at the appropriate time.
Bald Eagle and Golden Eagle Protection Act (Eagle Act) of 1940 16 U.S.C. § 668-668d	This is applicable. This EA is evaluated at a programmatic level for the County as a whole. The objective of this EA is to achieve compliance with NEPA for the Proposed Action in advance such that individual fiber projects can take advantage of State and federal grant funding programs. Based on an individual fiber project footprint, regulatory permitting may be required. All required permits would be evaluated at the appropriate time.

Potentially Applicable Requirement	Relevant Project Information
<p>Migratory Bird Treaty Act (MBTA) of 1918 16 U.S.C. § 703-712</p> <p>Responsibilities to Federal Agencies to Protect Migratory Birds Executive Order 13186</p>	<p>This is applicable. This EA is evaluated at a programmatic level for the County as a whole. The objective of this EA is to achieve compliance with NEPA for the Proposed Action in advance such that individual fiber projects can take advantage of State and federal grant funding programs. Based on an individual fiber project footprint, regulatory permitting may be required. All required permits would be evaluated at the appropriate time.</p>
<p>Fish and Wildlife Conservation Act 16 U.S.C. § 2901 et seq.</p> <p>Fish and Wildlife Coordination Act 16 U.S.C. § 661 et seq.</p>	<p>This is applicable. This EA is evaluated at a programmatic level for the County as a whole. The objective of this EA is to achieve compliance with NEPA for the Proposed Action in advance such that individual fiber projects can take advantage of State and federal grant funding programs. Based on an individual fiber project footprint, regulatory permitting may be required. All required permits would be evaluated at the appropriate time.</p>
<b>Waters, Wetlands, and Floodplain Protection</b>	
<p>Clean Water Act 33 U.S.C. § 1251 et seq.</p> <p>Floodplain/Wetlands Environmental Review Requirements 10 CFR 1022.12</p> <p>Floodplain Management Executive Order 11988</p> <p>Protection of Wetlands Executive Order 11990</p>	<p>This is applicable. This EA is evaluated at a programmatic level for the County as a whole. The objective of this EA is to achieve compliance with NEPA for the Proposed Action in advance such that individual fiber projects can take advantage of State and federal grant funding programs. Based on an individual fiber project footprint, regulatory permitting may be required. All required permits would be evaluated at the appropriate time.</p>
<p>Coastal Zone Management Act (CZMA) 16 U.S.C. § 1451 et seq.</p>	<p>N/A</p>
<b>Air Quality and Greenhouse Gases</b>	
<p>The Clean Air Act, as revised in 1990 42 U.S.C. § 4701</p>	<p>N/A</p>
<p>Final Mandatory Reporting of Greenhouse Gases Rule 40 CFR 98</p> <p>Federal Leadership in Environmental, Energy, and Economic Performance Executive Order 13514</p>	<p>N/A</p>

Potentially Applicable Requirement	Relevant Project Information
<b>Cultural and Historic Resources</b>	
<p>Antiquities Act of 1906 16 U.S.C. § 431-433</p> <p>Historic Sites Act of 1935 16 U.S.C. § 461-467</p> <p>NHPA of 1966, as amended, inclusive of Section 106 54 U.S.C. § 306108 et seq.</p> <p>Archaeological Data Preservation Act of 1974 (16 U.S.C. § 469 – 469-1)</p> <p>Archaeological Resources Protection Act of 1979, as amended 16 U.S.C. § 469 a-c</p> <p>Native American Graves Protection and Repatriation Act 25 U.S.C. § 3001 et seq.</p> <p>Indian Sacred Sites Executive Order 13007</p> <p>American Indian Religious Freedom Act of 1978 (42 U.S.C. § 1996)</p>	<p>This is applicable. This EA is evaluated at a programmatic level for the County as a whole. The objective of this EA is to achieve compliance with NEPA for the Proposed Action in advance such that individual fiber projects can take advantage of State and federal grant funding programs. Based on an individual fiber project footprint, regulatory permitting may be required. All required permits would be evaluated at the appropriate time.</p>
<b>Noise, Public Health, and Safety</b>	
<p>Noise Control Act of 1972 42 U.S.C. § 4901 et seq.</p>	<p>This is applicable. This EA is evaluated at a programmatic level for the County as a whole. The objective of this EA is to achieve compliance with NEPA for the Proposed Action in advance such that individual fiber projects can take advantage of State and federal grant funding programs. Based on an individual fiber project footprint, regulatory permitting may be required. All required permits would be evaluated at the appropriate time.</p>

Potentially Applicable Requirement	Relevant Project Information
<p>Spill Prevention Control and Countermeasures Rule 40 CFR 112</p> <p>Comprehensive Environmental Response, Compensation, and Liability Act 42 U.S.C. § 9601 et seq.</p> <p>Resource Conservation and Recovery Act 42 U.S.C. § 6901 et seq.</p>	<p>This is applicable. This EA is evaluated at a programmatic level for the County as a whole. The objective of this EA is to achieve compliance with NEPA for the Proposed Action in advance such that individual fiber projects can take advantage of State and federal grant funding programs. Based on an individual fiber project footprint, regulatory permitting may be required. All required permits would be evaluated at the appropriate time.</p>
<p>The Toxic Substances Control Act 15 U.S.C. 2601 et seq.</p>	<p>This is applicable. This EA is evaluated at a programmatic level for the County as a whole. The objective of this EA is to achieve compliance with NEPA for the Proposed Action in advance such that individual fiber projects can take advantage of State and federal grant funding programs. Based on an individual fiber project footprint, regulatory permitting may be required. All required permits would be evaluated at the appropriate time.</p>
<p>Federal Communications Commission (FCC)</p>	<p>This is applicable. This EA is evaluated at a programmatic level for the County as a whole. The objective of this EA is to achieve compliance with NEPA for the Proposed Action in advance such that individual fiber projects can take advantage of State and federal grant funding programs. Based on an individual fiber project footprint, regulatory permitting may be required. All required permits would be evaluated at the appropriate time.</p>
<b>Environmental Justice</b>	
<p>Environmental Justice</p>	<p>N/A</p>
<b>State, County, and Local Plan Consistency</b>	
<p>U.S. Forest Service</p>	<p>Depending on the individual fiber project-specific character, location, and construction techniques of future broadband, construction easements would be obtained.</p>
<p>Central Valley Regional Water Quality Control Board</p>	<p>Depending on the individual fiber project-specific character, location, and construction techniques of future broadband, a National Pollutant Discharge Elimination Construction General Permit (NPDES) and Section 401 water quality certification or a waiver of discharge requirements would be obtained.</p>
<p>California Department of Fish and Wildlife</p>	<p>Depending on the individual fiber project-specific character, location, and construction techniques of future broadband, a Lake and Streambed Alteration Agreement (LSAA) Section 1602 of the Fish and Game Code would be obtained.</p>
<p>County of El Dorado</p>	<p>Depending on the individual fiber project-specific character, location, and construction techniques of future broadband, use permits and encroachment permits would be obtained.</p>

---

## 7.0 References

- California Air Resources Board (CARB). 2024. Maps of State and Federal Area Designations. Accessed November 5. Available at: <https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations>.
- California Department of Conservation (DOC). 2024. Farmland under the Farmland Mapping and Monitoring Program. Accessed November 5. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>.
- California Department of Water Resources (DWR). 2024. Bulletin 18. Accessed November 5. Available at: <https://dwr.maps.arcgis.com/apps/Styler/index.html?appid=740d10eefd6148579321a3abcd065a36>.
- California Department of Toxic Substances Control (DTSC). 2024. Accessed November 12. Available at: <https://www.envirostor.dtsc.ca.gov/public/search?basic=True>.
- California Department of Transportation (Caltrans). 2024a. District 3 – Scenic Highway Program. Accessed November 9. Available at: <https://dot.ca.gov/caltrans-near-me/district-3/d3-programs/d3-maintenance/d3-scenic-hwy-program>.
- 2024b. California State Scenic Highway System Map. Accessed November 9. Available at: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>.
- 2024c. Vistas. ArcGIS Hub Dataset. Accessed November 9. Available at: <https://data.ca.gov/dataset/vistas/resource/bd6f5acc-fe0f-4318-bedc-716a13a2782b>.
2020. Transportation and Construction Vibration Guidance Manual. April. Available at: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>.
- El Dorado County (County). 2024. Solid Waste Collection and Disposal. Accessed November 9. Available at: <https://www.eldoradocounty.ca.gov/Public-Safety-Justice/Waste-Disposal/Solid-Waste-Disposal/Solid-Waste-Collection-and-Disposal>.
2019. General Plan Transportation and Circulation Element. August. Available at: [https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/land-use/planning-amp-zoning/adopted-general-plan/3\\_circulation.pdf](https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/land-use/planning-amp-zoning/adopted-general-plan/3_circulation.pdf).
- El Dorado County (County). 2019. General Plan Public Health, Safety, and Noise Element. August. Available at: [https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/land-use/planning-amp-zoning/adopted-general-plan/6\\_health-safety.pdf](https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/land-use/planning-amp-zoning/adopted-general-plan/6_health-safety.pdf).
2003. General Plan Draft Environmental Impact Report. May. Available at: <https://www.eldoradocounty.ca.gov/Land-Use/Planning-and-Building/Planning-Division/Adopted-General-Plan/General-Plan-Supporting-Documents/Draft-Environmental-Impact-Report-DEIR#section-3>.

---

El Dorado County Transportation Commission (EDCTC). 2012. Airport Land Use Compatibility Plans. June 28. Available at: <https://www.edctc.org/airport-land-use-compatibility-plans-and-fee-schedule>

El Dorado County Water Agency (EDWA). 2019. Water Resources Development and Management Plan. October 21. Available at: [https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/water-agency/2019\\_wrdmp\\_final.pdf](https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/water-agency/2019_wrdmp_final.pdf)

Federal Communications Commission (FCC). 2024. Getting Broadband Q&A. Accessed November 5. Available at: <https://www.fcc.gov/consumers/guides/getting-broadband-qa>.

1999. Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields, OEC Bulletin 56. Fourth Edition. Accessed November 12, 2024. Available at: [https://transition.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins/oet56/oet56e3.pdf](https://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e3.pdf).

National Wild and Scenic Rivers System (NWSRS). 2024. Rivers in California. Accessed November 5. Available at: <https://www.rivers.gov/california>.

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2017. Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan. July 24. Available at: <https://www.airquality.org/ProgramCoordination/Documents/Sac%20Regional%202008%20NAQS%20Attainment%20and%20RFP%20Plan.pdf>.

State Water Resources Control Board (SWRCB). 2024. GeoTracker. Accessed November 12. Available at: <https://geotracker.waterboards.ca.gov/search>.

2018. California Integrated Report. Clean Water Act Section 303(d) List. Available at: [https://www.waterboards.ca.gov/water\\_issues/programs/water\\_quality\\_assessment/2018\\_integrated\\_report.html](https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html).

South Lake Tahoe, City of. 2011. General Plan. May 17. Available at: <https://www.cityofslt.us/575/General-Plan>.

2010. General Plan Environmental Impact Report. September. Available at: [cityofslt.us/DocumentCenter/View/15125/General-Plan-Draft-Environmental-Impact-Report?bidId=](http://cityofslt.us/DocumentCenter/View/15125/General-Plan-Draft-Environmental-Impact-Report?bidId=).

Tahoe Regional Planning Agency (TRPA). 2024. Regional Plan. April 28. Available at: <https://www.trpa.gov/wp-content/uploads/Adopted-Regional-Plan.pdf>.

U.S. Army Corps of Engineers (USACE). 2024. National Inventory of Dams. Accessed November 5. Available at: <https://nid.sec.usace.army.mil/#/>.

U.S. Census Bureau (US Census Bureau). 2023. QuickFacts for El Dorado County. July 1. Available at: <https://www.census.gov/quickfacts/fact/table/eldoradocountycalifornia,US/PST045223#qf-headnote-a>.



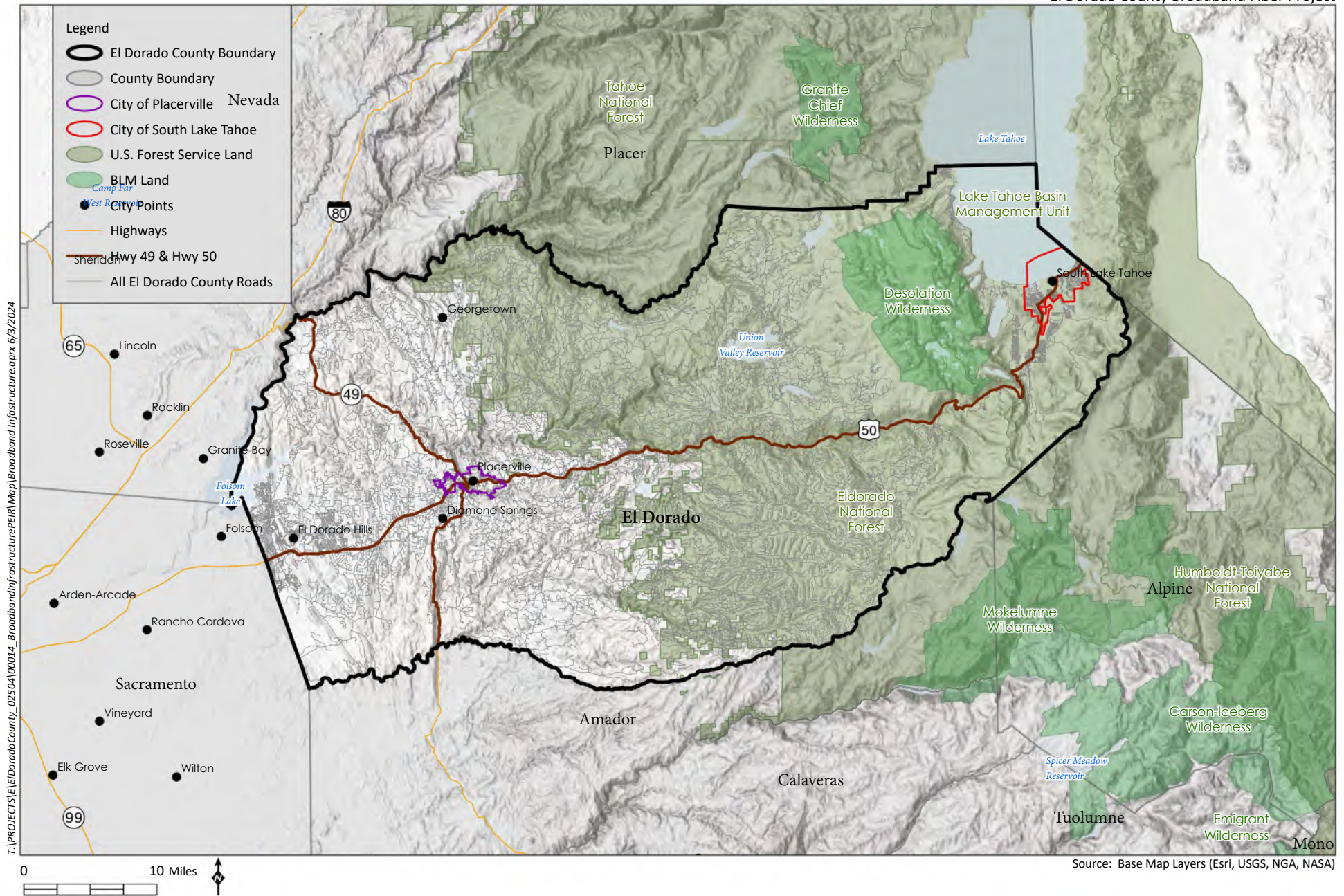
---

U.S. Environmental Protection Agency (USEPA). 2024. Superfund: National Priorities List. Accessed November 5. Available at:  
<https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=33cebcdfdd1b4c3a8b51d416956c41f1>.

Appendix A: Figures

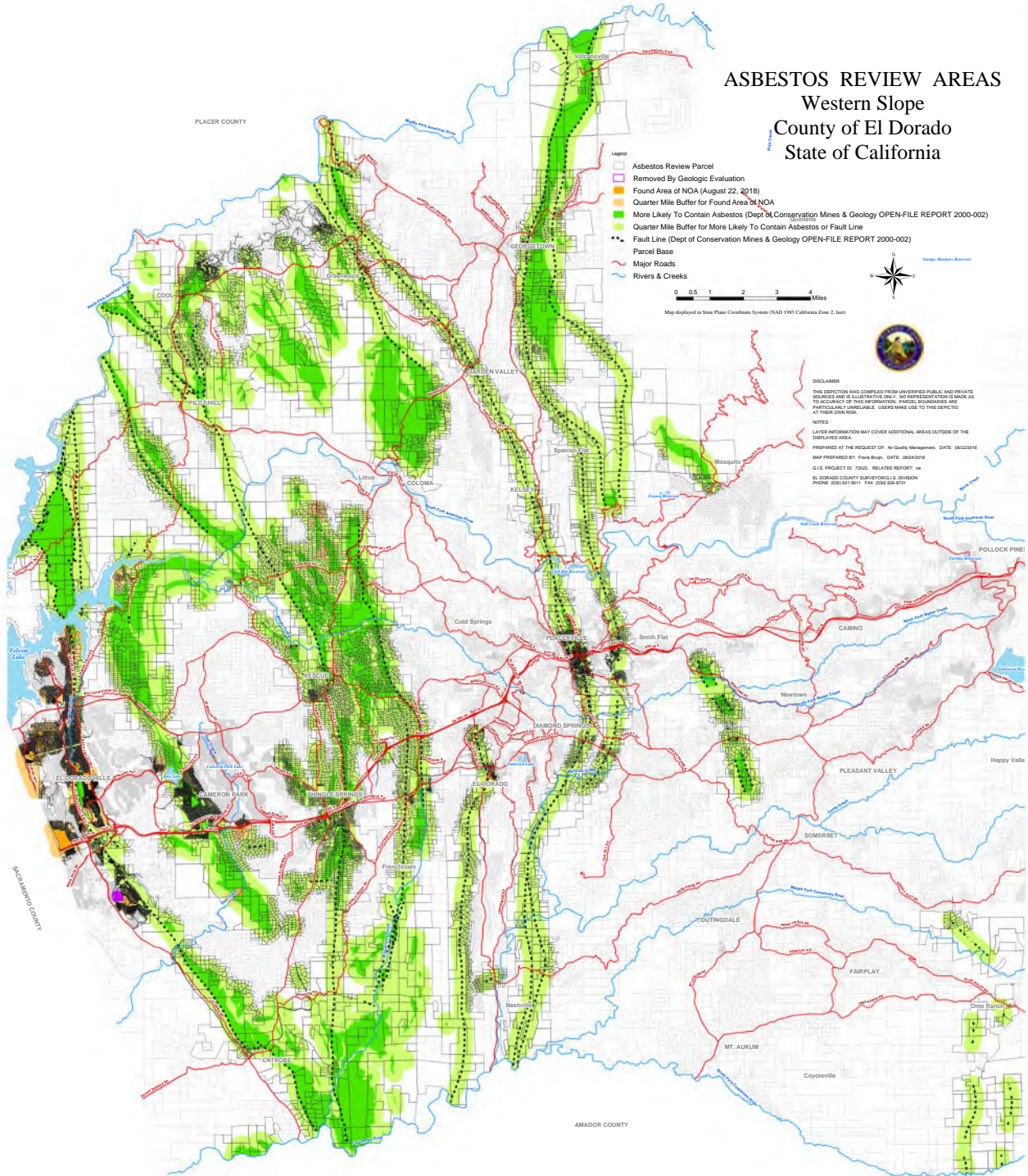
---

---



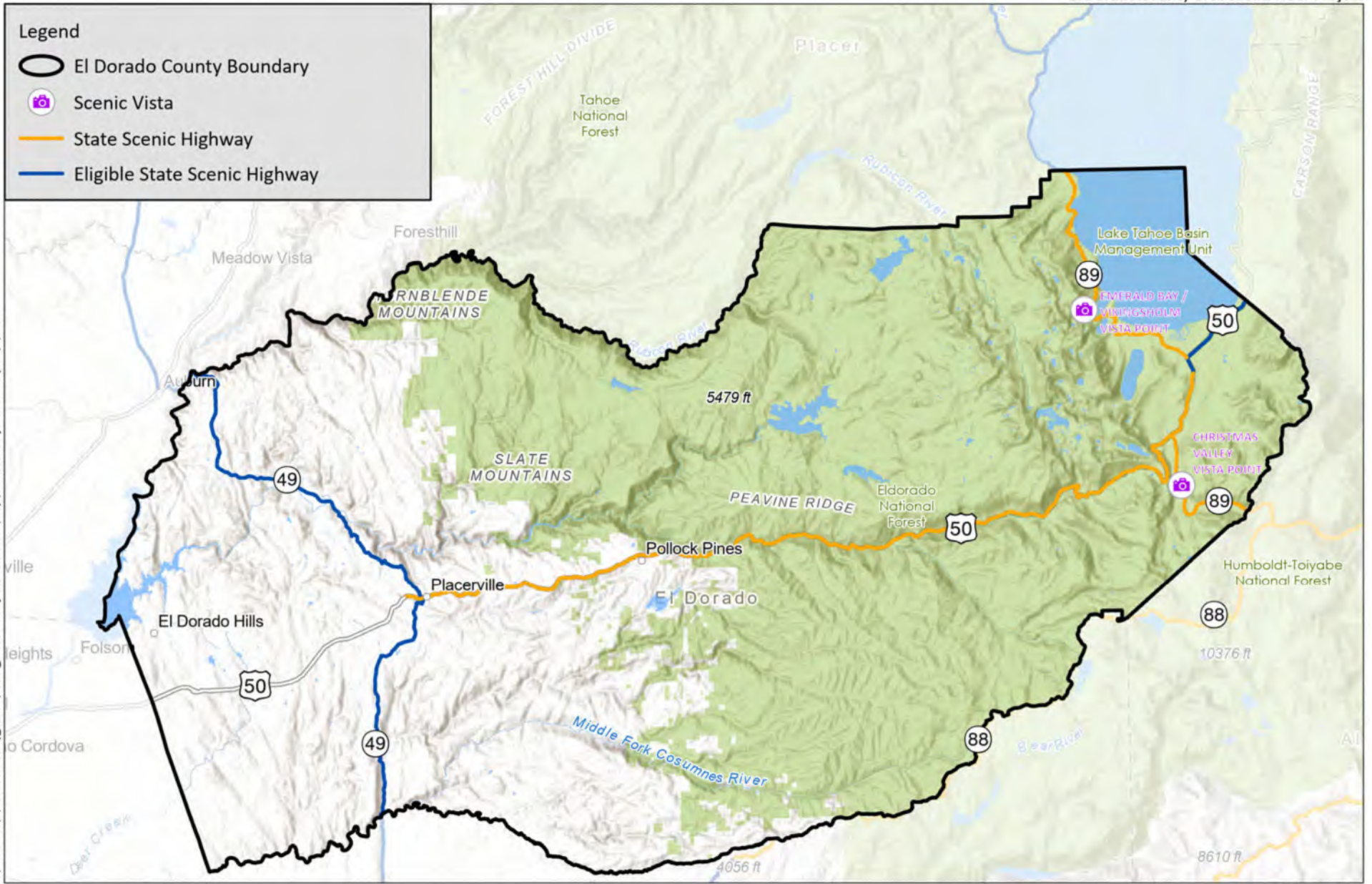
T:\PROJECTS\ElDoradoCounty\_02504\00014\_BroadbandInfrastructure\ER\Map\BroadbandInfrastructure.aprx 6/3/2024

### ASBESTOS REVIEW AREAS Western Slope County of El Dorado State of California



Source: El Dorado County

T:\PROJECTS\ElDoradoCounty\_02504\00014\_BroadbandInfrastructure\PEIR\Map\Fig.4.3-1\_Asbestos.mxd



T:\PROJECTS\ElDoradoCounty\_02504\00014\_BroadbandInfrastructure\PEIR\Map\BroadbandInfrastructure.aprx 1/7/2025

Source: CalTrans, 2024

---

Appendix B: List of Preparers

# APPENDIX B: LIST OF PREPARERS

---

This document has been completed by the County of El Dorado for the El Dorado County Broadband Fiber Project with support from the following organizations and professional staff:

## **ENVIRONMENTAL ASSESSMENT**

### El Dorado County

Kyle Zimbelman, Deputy Director of Economic Development and Administration

### HELIX Environmental Planning, Inc.

Lesley Owing, Principal Planner

Julia Pano, Project Manager

Emmaline deBecker, Environmental Planner

Steve Banks, Senior Planner

John DeMartino, Senior GIS Specialist

Martin Rolph, Senior Air Quality and Noise Specialist

Andrew Pulcheon, Principal Archaeologist

Clarus Backes, Senior Archaeologist

David Bise, Principal Biologist

Carrie Murch, Biologist

# Appendix C

---

NOP Comment Letters



## NATIVE AMERICAN HERITAGE COMMISSION

August 30, 2024

Kyle Zimbelman  
El Dorado County  
2850 Fairlane Court  
Placerville CA 95667

**Re: 2024081255 El Dorado County Broadband Fiber Project, El Dorado County**

Dear Mr. Zimbelman:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines §15064.5 (b))). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1))). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

**Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**



CHAIRPERSON  
**Reginald Pagaling**  
Chumash

VICE-CHAIRPERSON  
**Buffy McQuillen**  
Yokayo Pomo, Yuki,  
Nomlaki

SECRETARY  
**Sara Dutschke**  
Miwok

PARLIAMENTARIAN  
**Wayne Nelson**  
Luiseño

COMMISSIONER  
**Isaac Bojorquez**  
Ohlone-Costanoan

COMMISSIONER  
**Stanley Rodriguez**  
Kumeyaay

COMMISSIONER  
**Laurena Bolden**  
Serrano

COMMISSIONER  
**Reid Milanovich**  
Cahuilla

COMMISSIONER  
**Bennae Calac**  
Pauma-Yuima Band of  
Luiseño Indians

EXECUTIVE SECRETARY  
**Raymond C. Hitchcock**  
Miwok, Nisenan

NAHC HEADQUARTERS  
1550 Harbor Boulevard  
Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

- 1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:** Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
  - a.** A brief description of the project.
  - b.** The lead agency contact information.
  - c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
  - d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
  
- 2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:** A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subs. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1 (b)).
  - a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
  
- 3. Mandatory Topics of Consultation If Requested by a Tribe:** The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
  - a.** Alternatives to the project.
  - b.** Recommended mitigation measures.
  - c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).
  
- 4. Discretionary Topics of Consultation:** The following topics are discretionary topics of consultation:
  - a.** Type of environmental review necessary.
  - b.** Significance of the tribal cultural resources.
  - c.** Significance of the project's impacts on tribal cultural resources.
  - d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
  
- 5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process:** With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
  
- 6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:** If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
  - a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
  - b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
  - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
    - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
    - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
  - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    - i.** Protecting the cultural character and integrity of the resource.
    - ii.** Protecting the traditional use of the resource.
    - iii.** Protecting the confidentiality of the resource.
  - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
  - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
  - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
  - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
  - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
  - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: [http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation\\_CalEPAPDF.pdf](http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf)

## SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: [https://www.opr.ca.gov/docs/09\\_14\\_05\\_Updated\\_Guidelines\\_922.pdf](https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf).

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
  - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

### NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center ([https://ohp.parks.ca.gov/?page\\_id=30331](https://ohp.parks.ca.gov/?page_id=30331)) for an archaeological records search. The records search will determine:
  - a. If part or all of the APE has been previously surveyed for cultural resources.
  - b. If any known cultural resources have already been recorded on or adjacent to the APE.
  - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
  - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
  - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
  
4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
  - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
  - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
  - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: [Pricilla.Torres-Fuentes@NAHC.ca.gov](mailto:Pricilla.Torres-Fuentes@NAHC.ca.gov).

Sincerely,

*Pricilla Torres-Fuentes*

Pricilla Torres-Fuentes  
Cultural Resources Analyst

cc: State Clearinghouse

## California Department of Transportation

DISTRICT 3  
703 B STREET | MARYSVILLE, CA 95901-5556  
(530) 821-8401  
[www.dot.ca.gov](http://www.dot.ca.gov)



September 25, 2024

GTS# 03-ED-2024-00347  
SCH# 2024081255

Mr. Kyle Zimbelman  
Deputy Director, Economic Development and Administration  
El Dorado County  
2850 Fairlane Court  
Placerville, CA 95667

### **El Dorado County Broadband Fiber Project)**

Dear Mr. Zimbelman:

Thank you for including the California Department of Transportation (Caltrans) in the review process for the project referenced above. We reviewed this local development for impacts to the State Highway System (SHS) in keeping with our mission, vision, and goals, some of which includes addressing equity, climate change, and safety, as outlined in our statewide plans such as the California Transportation Plan, Caltrans Strategic Plan, and Climate Action Plan for Transportation Infrastructure.

The El Dorado County Broadband Fiber Project would be located within the unincorporated areas of the County and within the two incorporated cities within the County, the City of Placerville, and City of South Lake Tahoe. The County is located in northern California, bordered by Placer County to the north, Amador and Alpine counties to the south, and Sacramento County to the west; the state of Nevada borders El Dorado County to the east. The County is located in the central Sierra Nevada, east of the Central Valley. The County covers approximately 1,789 square miles (1,145,385 acres) ranging from the residential foothills of El Dorado Hills to the high Sierra Nevada Mountain range. Several major roadways including U.S. 50 and State Routes (SRs) 49, 88, and 89 traverse the County. Elevations range from 200 feet above sea level at the western end of the County to 10,881 feet atop Freel Peak on the edge of the Lake Tahoe Basin. Placerville and South Lake Tahoe are the two incorporated cities within the County; however, there are other several unincorporated communities located throughout the County. Based on the Notice of Preparation (NOP) documents provided, Caltrans has the following requests and recommendations:

## Right of Way

Any future development that would require direct connection to our state route will require plans sets outlining our state right of way (ROW). For future planning and ROW record maps please contact District 3 ROW Front Map Counter by contacting: [d3rwmrequest@dot.ca.gov](mailto:d3rwmrequest@dot.ca.gov).

## Encroachment Permit

Any project or work, including access modification and drainage work, that takes place along or within the State's ROW requires an encroachment permit issued by Caltrans. To apply, a completed encroachment permit application, environmental documentation, and five sets of plans clearly indicating State ROW must be submitted to Encroachment Permits Offices as indicated below:

Hikmat Bsaibess  
California Department of Transportation  
District 3, Office of Permits  
703 B Street  
Marysville, CA 95901  
[D3encpermit@dot.ca.gov](mailto:D3encpermit@dot.ca.gov)

It is particularly important to note that there is a screening process to determine the level of complexity of the proposed encroachment, and the necessary review process. Linked below is our Form TR-0416, the *Applicant's Checklist to Determine Applicable Review Process*. Normally, our Encroachment Permits office has a mandatory 20- to 30-day time limit to respond to an encroachment permit application. If any item on the TR-0416 form is marked "False," the encroachment is potentially elevated to a "complex encroachment," as processes to complete "False" items may take significantly longer than 20 to 30 days and/or require Caltrans function unit staff involvement to resolve, and the application may be subject to management through a Caltrans project manager.

The TR-0416 Form can be found at <https://dot.ca.gov/programs/traffic-operations/ep/news-policy>

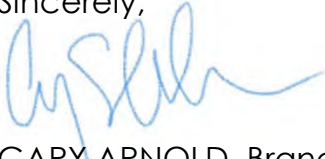
For more information, please visit the Caltrans Website at: <https://dot.ca.gov/programs/traffic-operations/ep/applications>

Please provide our office with copies of any further actions regarding this proposal. We would appreciate the opportunity to review and comment on any changes related to this development.

Mr. Kyle Zimbelman, Deputy Director  
September 25, 2024  
Page 3

If you have any questions regarding these comments or require additional information, please contact Satwinder Dhatt, Local Development Review Coordinator, by phone (530) 821-8261 or via email at [satwinder.dhatt@dot.ca.gov](mailto:satwinder.dhatt@dot.ca.gov).

Sincerely,



GARY ARNOLD, Branch Chief  
Local Development Review and Complete Streets  
Division of Planning, Local Assistance, and Sustainability  
California Department of Transportation, District 3





---

## Central Valley Regional Water Quality Control Board

30 September 2024

Kyle Zimbelman  
El Dorado County  
2850 Fairlane Court  
Placerville, CA 95667  
[kyle.zimbelman@edcgov.us](mailto:kyle.zimbelman@edcgov.us)

### **COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, EL DORADO COUNTY BROADBAND FIBER PROJECT, SCH#2024081255, EL DORADO COUNTY**

Pursuant to the State Clearinghouse's 29 August 2024 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environmental Impact Report* for the El Dorado County Broadband Fiber Project, located in El Dorado County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

#### **I. Regulatory Setting**

##### **Basin Plan**

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by

the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/basin\\_plans/](http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/)

### **Antidegradation Considerations**

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:

[https://www.waterboards.ca.gov/centralvalley/water\\_issues/basin\\_plans/sacsjr\\_2018\\_05.pdf](https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_2018_05.pdf)

In part it states:

*Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.*

*This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.*

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

## **II. Permitting Requirements**

### **Construction Storm Water General Permit**

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml)

#### **Clean Water Act Section 404 Permit**

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

#### **Clean Water Act Section 401 Permit – Water Quality Certification**

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at:  
[https://www.waterboards.ca.gov/centralvalley/water\\_issues/water\\_quality/certification/](https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality/certification/)

#### **Waste Discharge Requirements – Discharges to Waters of the State**

If USACE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:  
[https://www.waterboards.ca.gov/centralvalley/water\\_issues/waste\\_to\\_surface\\_water/](https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/)

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at:

[https://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2004/wqo/wqo2004-0004.pdf](https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf)

### **Dewatering Permit**

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:  
[http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2003/wqo/wqo2003-0003.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf)

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:  
[https://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/waivers/r5-2018-0085.pdf](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf)

### **Limited Threat General NPDES Permit**

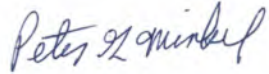
If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:

[https://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/general\\_orders/r5-2016-0076-01.pdf](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf)

### **NPDES Permit**

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: <https://www.waterboards.ca.gov/centralvalley/help/permit/>

If you have questions regarding these comments, please contact me at (916) 464-4684 or [Peter.Minkel2@waterboards.ca.gov](mailto:Peter.Minkel2@waterboards.ca.gov).



Peter G. Minkel  
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research,  
Sacramento

# Appendix D

---

## Mitigation Monitoring and Reporting Program

# MITIGATION MONITORING AND REPORTING PROGRAM

## INTRODUCTION

The California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 21081.6, requires that a Mitigation Monitoring and Reporting Program (MMRP) be established upon completing findings. CEQA stipulates that “the public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.”

This MMRP addresses the El Dorado County Broadband Fiber Project (“proposed Project” or “Project) Program Environmental Impact Report (EIR) proposed by El Dorado County. El Dorado County (County) is the Lead Agency for the Project under CEQA and shall administer and implement the MMRP. The County is responsible for reviewing all monitoring reports, enforcement actions, and document disposition. The County shall rely on information provided by the Project site observers/monitors (e.g., construction manager, project manager, biologist, archaeologist, etc.) as accurate and up-to-date and shall provide personnel to field check mitigation measure status, as required.

## MMRP FORMAT AND IMPLEMENTATION

Mitigation measures that would reduce or eliminate potential environmental impacts of the proposed Project are identified in the El Dorado County Broadband Fiber Project Program EIR. These mitigation measures will become conditions of project approval if the Project is approved. The County is required to verify that all adopted mitigation measures are implemented properly and to ensure compliance, this MMRP (including the checklist) has been formulated. The MMRP shall be adopted, along with CEQA Findings, by the County (Lead Agency) and must be administered by County personnel from the Economic Development Department. Specific responsibilities are delineated for each measure in the attached checklist table and these responsibilities may be delegated to qualified County staff or consultants.

The checklist in the following table is intended to be used by the applicant, grading/construction contractors, and personnel from the above-listed County Department, as the appointed mitigation implementation and monitoring entities. Information contained within the checklist clearly identifies each mitigation measure, defines the conditions required to verify compliance, and delineates the monitoring schedule. Following is an explanation of the columns that constitute each MMRP checklist.

- |                 |   |
|-----------------|---|
| <u>Column 1</u> | <i>Mitigation Measure:</i> An inventory of each mitigation measure is provided.   |
| <u>Column 2</u> | <i>Monitoring Responsibility:</i> Identifies who is responsible for determining compliance with each mitigation measure (e.g., El Dorado County, construction contractor, individual fiber project applicant, qualified biologist, archaeologist).  |
| <u>Column 3</u> | <i>Implementation Schedule:</i> As scheduling is dependent upon the progression of the overall program, specific dates are not used within the “Schedule” column. Instead, scheduling describes a logical succession of events (e.g., prior to ground-disturbing activities, etc.) and, if necessary, delineates a follow-up program. |
| <u>Column 4</u> | <i>Monitoring Compliance Record Name/Date:</i> Column is left blank and is to be signed and dated when compliance with the mitigation measure has been met.   |

This page intentionally left blank.



**MITIGATION MONITORING AND REPORTING PROGRAM  
El Dorado County Broadband Fiber Project**

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
<b>AESTHETICS</b>				
<p><b>AES-1: Visual Impact Assessment</b></p> <p>For any individual fiber project proposed within the viewshed of a designated scenic vista, eligible State Scenic Highway, and/or designated State Scenic Highway, the project applicant shall prepare a Visual Impact Assessment (VIA) for Lead Agency review and approval. The VIA shall be prepared by a qualified professional with experience in visual resource analysis. The VIA shall evaluate the potential impacts of the project on scenic resources in accordance with the California Environmental Quality Act (CEQA) Guidelines, including but not limited to consideration of aesthetic values, visual quality, and the character of the surrounding landscape.</p> <p>The VIA shall include the following components:</p> <ul style="list-style-type: none"> <li>• <u>Baseline Conditions</u>: Documentation of existing visual conditions, including photographs, renderings, and/or other visual tools to establish the project site’s current view and its relationship to surrounding scenic resources.</li> <li>• <u>Visual Simulations</u>: Preparation of photo-realistic visual simulations depicting the project as proposed from key public viewpoints, including those within the scenic vista or from the State Scenic Highway.</li> <li>• <u>Impact Analysis</u>: Identification of potential impacts on scenic vistas and resources, using thresholds of significance established under CEQA Guidelines or applicable local policies.</li> </ul>	Prior to approval of individual fiber projects	El Dorado County; Project Applicant		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
<ul style="list-style-type: none"> <li>• <u>Design Recommendations or Mitigation Measures</u>: Identification of feasible design measures or project-specific mitigation measures to avoid, minimize, and/or reduce potentially significant visual impacts. These measures may include, but are not limited to:                             <ul style="list-style-type: none"> <li>○ Modifications to project design, height, massing, and/or orientation.</li> <li>○ Use of landscaping, vegetative screening, and/or earthworks to soften visual impacts.</li> <li>○ Use of non-reflective and/or neutral-colored materials to reduce visual contrast.</li> <li>○ Adjustment of lighting design to prevent glare and/or light trespass into sensitive areas.</li> </ul> </li> </ul> <p>All recommendations and mitigation measures identified in the VIA and approved by the Lead Agency shall be incorporated into project plans and specifications before project approval.</p>				
<b>AIR QUALITY</b>				
<p><b>AQ-1: Prepare a Fugitive Dust Mitigation Plan</b></p> <p>The applicant of an individual fiber project shall submit a Fugitive Dust Control Plan (FDCP) to the Air Pollution Control Officer of the El Dorado County Air Quality Management District (EDCAQMD) prior to the start of any construction activity for which a grading permit was issued by El Dorado County or incorporated city within El Dorado County. The FDCP shall implement all construction related best management practices (BMPs) included in Appendix C-1, Tables C.4 and C.5 of the EDCAQMD Guide to Air Quality Assessment. The FDCP shall be prepared in compliance with EDCAQMD Rule 223-1. Construction activities shall not commence until the Air Pollution Control Officer has approved or conditionally approved the FDCP.</p>	Prior to initiation of construction activities	Air Pollution Control Officer of the El Dorado County Air Quality Management District; El Dorado County; Project Applicant		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
<p><b>AQ-2: Prepare an Asbestos Dust Mitigation Plan</b></p> <p>If naturally occurring asbestos, serpentine, or ultramafic rock is discovered by the individual fiber project applicant, a professional geologist, or the Air Pollution Control Officer of the EDCAQMD, then an Asbestos Dust Mitigation Plan shall be prepared and submitted to the Air Pollution Control Officer prior to construction. The Asbestos Dust Mitigation Plan shall be prepared in compliance with EDCAQMD Rule 223-2. Construction activities shall not commence until the Air Pollution Control Officer has approved or conditionally approved the Asbestos Dust Mitigation Plan. If a professional geologist has conducted a geologic evaluation of the property and determined that no serpentine or ultramafic rock, or asbestos, is likely to be found in the area disturbed, then the Air Pollution Control Officer shall provide an exemption from EDCAQMD Rule 223-2.</p>	<p>Immediately upon discovery of naturally occurring asbestos, serpentine, or ultramafic rock</p>	<p>Professional Geologist or Air Pollution Control Officer of the El Dorado County Air Quality Management District; Project Applicant</p>		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
<b>BIOLOGICAL RESOURCES</b>				
<p><b>BIO-1: Prepare a Site-Specific Biological Resources Assessment</b></p> <p>Prior to approval of an individual fiber project, the applicant of an individual fiber project shall retain a qualified biologist to prepare a site-specific biological resources assessment (BRA). The BRA shall consist of a desktop review of relevant biological databases and online resources, a general biological reconnaissance survey, vegetation mapping, aquatic resources assessment, analysis of potential impacts to biological resources, and proposed measures to reduce and/or avoid potential impacts.</p> <p>If it is determined during the biological resources assessment that special-status species have the potential to occur within a project area, then project-specific mitigation measures should be recommended to reduce and/or avoid potential impacts. Potential measures for special-status species may include, but are not limited to, protocol-level surveys, nesting bird surveys, and other focused preconstruction surveys.</p> <p>If it is determined that special-status species are present within or adjacent to the project area, or if the project has potential to impact USFWS designated critical habitat and/or NMFS essential fish habitat, then the project proponent shall coordinate with CDFW and/or USFWS, as necessary, to determine mitigation and/or avoidance measures to reduce potential impacts to a level that would be less than significant. Depending on site-specific conditions, agency involvement may be triggered through the regulatory permitting process or direct agency consultation.</p>	<p>Prior to approval of individual fiber projects</p>	<p>Qualified Biologist, California Department of Fish and Wildlife and/or U.S. Fish and Wildlife Service, El Dorado County, Project Applicant</p>		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
<p><b>BIO-2: Jurisdictional Delineation and Regulatory Permitting</b></p> <p>If it is determined that impacts to jurisdictional waters or other sensitive natural communities cannot be avoided, then the applicant of an individual fiber project shall apply for any necessary permits from the United States Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), and the Regional Water Quality Control Board (RWQCB) (e.g., Section 401/404 permits, CDFW Lake or Streambed Alteration Agreement, etc.). If necessary, a formal delineation of wetlands and “other waters” of the U.S. shall be prepared in accordance with USACE’s <i>Corps of Engineers Wetlands Delineation Manual</i> and appropriate regional supplements to determine the extent of aquatic resources and quantify impacts. Impacts to jurisdictional waters and/or sensitive natural habitat shall be mitigated in accordance with agency requirements.</p>	Prior to approval of individual fiber projects	Project Applicant		
<p><b>BIO-3: Oak Resources Inventory</b></p> <p>If it is determined during the biological resources assessment that an individual fiber project will result in impacts to oak resources, depending on the location of an individual fiber project, the County, incorporated cities, or the Tahoe Regional Planning Agency (TRPA) may require mitigation for impacts to oak resources or regulated individual oak trees. Depending on the location of the individual fiber project, the County Community Planning and Building Department, City of Placerville Planning Division, City of South Lake Tahoe Planning Division, or TRPA may require an inventory of prematurely removed trees or canopy cover to determine the extent of the loss prior to approval of the individual fiber project. The inventory shall be prepared by a resource professional with expertise in oak woodlands ecology who is on the list of qualified consultants maintained by the County Community Planning and Building Department, City of Placerville Planning Division, City of South Lake Tahoe Planning Division, or TRPA. Resource professionals may include botanists, ecologists, wildlife biologists, and foresters.</p>	Prior to approval of individual fiber projects	Qualified Botanists/ Ecologist/ Wildlife Biologist/ Forester, El Dorado County Community Planning and Building Department, City of Placerville Planning Division, City of South Lake Tahoe Planning Division, Tahoe Regional Planning Agency		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
<b>CULTURAL RESOURCES</b>				
<p><b>CUL-1: Archaeological Cultural Resources Investigations</b></p> <p><i>Preconstruction Screening Identification</i></p> <p>Prior to each phase of individual fiber projects, including installation and/or use of appurtenant structures, unpaved staging areas, and fiber optic line, El Dorado County shall request a records search for all project footprints for construction activities that require ground disturbance in areas that have not been previously subject to such disturbance. For those areas of native, unpaved soil that have not been adequately surveyed for archaeological cultural resources in the past, the County shall require a pedestrian field survey by a qualified professional archaeologist. If archaeological cultural resources are identified as a result of that survey, the County shall implement the recommendations of the consulting archaeologist to avoid or substantially reduce the severity of impacts on such resources. For those areas that have been surveyed previously, the County shall abide by the recommendations of the professional archaeologist who conducted the original survey.</p> <p><i>Known Resource Conflicts</i></p> <p>In the event that the records search described above identifies archaeological cultural resources that would be subject to a project-related impact, the County shall evaluate the status of the resource under CEQA. The archaeological resource shall be assessed for significance through the implementation of a Phase II investigation by a qualified archaeologist. This may require some or all of the following:</p>	<p>Prior to each phase of individual fiber projects</p>	<p>Qualified Archaeologist, El Dorado County, Descendent Tribal Communities</p>		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
<ul style="list-style-type: none"> <li>• Development of a research design that guides assessments of site significance and scientific potential.</li> <li>• Mapping and systematic collection of a representative sample of surface artifacts.</li> <li>• Subsurface investigation through shovel test pits, surface scrapes, or 1-by-1 meter excavation units; a combination of such methods; or equivalent methods.</li> <li>• Analysis of recovered material to determine significance pursuant to the CEQA Guidelines.</li> <li>• Preparation of a report, including an evaluation of site significance, and recommendations for mitigation, if appropriate.</li> <li>• Appropriate curation of collected artifacts.</li> </ul> <p>If the resource is precontact in nature, the Phase II investigation shall be coordinated with descendant tribal communities.</p> <p>If the Phase II evaluation concludes that the archaeological resource does not qualify as a historical resource (PRC Section 21084.1) or unique archaeological resource (PRC Section 21083.2), then no further study or protection of the resource is necessary. If the resource does qualify as a historical or unique archaeological resource, then the County shall require the implementation of the Phase III approach described below.</p>				

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
<p>A Phase III data recovery effort, in accordance with CEQA Guidelines, shall be implemented by the consulting archaeologist for those sites that are shown by the Phase II efforts to qualify as significant under CEQA. The County shall ensure that data recovery conducted to the level that reduces impacts to below the level of significance has been completed prior to individual fiber project implementation. The Phase III data recovery program shall include all or a combination of the following methods:</p> <ul style="list-style-type: none"> <li>• Development of a research design to identify important research questions that may be answered through a systematic study of the resource.</li> <li>• Mapping and systematic collection of surface artifacts, possibly complete data recovered depending on site size.</li> <li>• Subsurface investigation through methods such as controlled hand-excavation units, machine excavations, deep testing, or a combination of methods. When applicable, other techniques, such as geophysical testing, may be warranted.</li> <li>• Analysis of recovered material through visual inspection and chemical analysis when applicable.</li> <li>• Preparation of a report.</li> <li>• Appropriate curation of collected artifacts.</li> </ul> <p>If the resource is precontact in nature, the Phase III investigation shall be coordinated with descendant tribal communities.</p>				



Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
<p><b>CUL-2: Inadvertent Discovery of Archaeological Cultural Resources</b></p> <p>In the event that cultural resources are exposed during ground-disturbing activities, construction activities shall be halted within 100 feet of the discovery. Cultural resources could consist of but are not limited to stone, bone, wood, or shell artifacts, or features, including hearths, structural remains, or historic-era dumpsites. If the resources cannot be avoided during the remainder of construction, a consulting archaeologist who meets the Secretary of the Interior's <i>Professional Qualifications Standards</i> for archaeology shall assess the resource and provide appropriate management recommendations. The County shall implement those recommendations to avoid or substantially reduce the severity of impacts on significant resources.</p>	Immediately upon discovery of archaeological cultural resources	Qualified Archaeologist, El Dorado County		
<b>NOISE</b>				
<p><b>NOI-1: Construction Hours</b></p> <p>Construction activities shall not occur outside the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, or outside the hours of 8:00 a.m. and 5:00 p.m. on weekends, or at all on federally recognized holidays. The project applicant or construction contractor shall post a publicly visible sign at the entrance to the individual fiber project site listing the allowable construction hours and the contact information, including telephone numbers, to report noise violations to the County and the contractor.</p>	Prior to issuing individual project construction permits	Project Applicant, Construction Contractor, El Dorado County		
<p><b>NOI-2: Backup Generator Noise Control</b></p> <p>Prior to approving individual fiber projects that require an emergency back generator, the County shall verify project plans including the following:</p> <ul style="list-style-type: none"> <li>Where feasible, emergency backup generators shall be installed no closer than 105 feet from any noise sensitive land use (NSLU; e.g., residences, schools, hospitals, convalescent homes, churches, libraries). If it is not feasible to locate emergency generators 105 feet or more from all NSLUs, the project proponent shall incorporate noise attenuating features (e.g., generator sound enclosures, noise barriers) into the equipment installation sufficient to reduce generator noise levels to 55 dBA <math>L_{EQ}</math> or less measured at outdoor use areas or building</li> </ul>	Prior to approval of individual fiber projects	El Dorado County		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
edges of the closest NSLU. Noise levels at NSLUs shall be verified by a qualified acoustical professional.				
<p><b>NOI-3: Vibratory Roller Use</b></p> <p>Prior to issuing individual fiber project construction approvals or permits, the County shall insure that construction documentation includes the following restrictions. Vibratory rollers shall be used in static mode only (no vibrations) within the flowing distances:</p> <ul style="list-style-type: none"> <li>• Within 15 feet of any occupied building; and,</li> <li>• Within 18 feet of any older residential building; and,</li> <li>• Within 60 feet of a fragile historical building, ruin, or ancient monument.</li> </ul>	Prior to issuing individual fiber project construction permits	El Dorado County		
<b>TRANSPORTATION</b>				
<p><b>Mitigation Measure TRA-1: Traffic Control and Detour Plan</b></p> <p>Prior to the issuance of an encroachment permit, a Traffic Control and Detour Plan shall be developed for individual fiber projects that would require an encroachment permit for construction activities along ROW to manage traffic during construction. The applicant shall consult with the Lead Agency and/or Caltrans prior to initiation of construction activities that may affect area traffic (such as construction staging necessitating lane closure, trenching, etc.) to ensure that the Traffic Control and Detour Plan is prepared in conformance with applicable code and ordinance requirements for emergency access. The construction contractor shall implement appropriate traffic controls identified in the Traffic Control and Detour Plan in accordance with the California Vehicle Code and other State and local requirements to avoid or minimize impacts on traffic during construction. The Traffic Control and Detour Plan shall be submitted to the agency responsible for issuing the encroachment permit for review and approval prior to the commencement of construction activities.</p>	Prior to issuing individual fiber project encroachment permit	El Dorado County, Caltrans		

Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
<b>TRIBAL CULTURAL RESOURCES</b>				
<p><b>TCR-1: Tribal Consultation</b></p> <p>El Dorado County shall conduct the appropriate tribal consultation outreach to relevant California Native American tribes, pursuant to PRC Section 21080.3.1, for all individual fiber projects included within the scope of the El Dorado County Broadband Fiber Project Program EIR. Pursuant to PRC Section 21080.3.1 (b), the tribes will have 30 days for Assembly Bill 52 (AB 52) from the receipt of the request for consultation to either request or decline consultation, in writing, with the County for each proposed individual fiber project. In the event that a general plan or specific plan adoption or amendment is required for the implementation of an individual fiber project, the County shall comply with the requirements of Senate Bill 18 (SB 18), in coordination with AB 52, as described in California Government Code Section 65352.3.</p>	AB 52 consultation	El Dorado County		
<p><b>TCR-2: Archaeological Treatment and Tribal Consultation</b></p> <p>In the event that potential tribal cultural resources (TCRs) are exposed during ground-disturbing activities, construction activities (e.g., grading, grubbing, or vegetation clearing) shall be halted in the immediate vicinity of the discovery. An archaeologist who meets the Secretary of the Interior’s <i>Professional Qualifications Standards</i> shall then be retained to evaluate the resource’s significance under CEQA in direct coordination with tribal members who would provide traditionally based cultural knowledge as a basis for collaboratively assessing said significance. If the discovery proves to be significant, additional work and mitigation measures, such as those listed in Mitigation Measures CUL-1 and CUL-2, as deemed appropriate by the tribal organization consulting on the find. Such mitigation may include avoidance, data recovery excavation, or traditional ethnographic research into the cultural importance of the find to contemporary descendant communities.</p>	Immediately upon discovery	Professional Archaeologist; Tribal Organization Consulting on the find		

# Appendix E

---

CalEEMod Output

# El Dorado County Broadband Detailed Report

## Table of Contents

1. Basic Project Information
  - 1.1. Basic Project Information
  - 1.2. Land Use Types
  - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
2. Emissions Summary
  - 2.1. Construction Emissions Compared Against Thresholds
  - 2.2. Construction Emissions by Year, Unmitigated
3. Construction Emissions Details
  - 3.1. Horizontal Direction Drilling (2025) - Unmitigated
  - 3.3. Plowing (2025) - Unmitigated
  - 3.5. Line Installation (2025) - Unmitigated
  - 3.7. Aerial Stringing (2025) - Unmitigated
  - 3.9. Pavement Repair (2025) - Unmitigated
  - 3.11. Microtrenching (2025) - Unmitigated
  - 3.13. Trenching (2025) - Unmitigated

## 4. Operations Emissions Details

### 4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

## 5. Activity Data

### 5.1. Construction Schedule

### 5.2. Off-Road Equipment

5.2.1. Unmitigated

### 5.3. Construction Vehicles

5.3.1. Unmitigated

### 5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

### 5.5. Architectural Coatings

### 5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

### 5.7. Construction Paving

## 5.8. Construction Electricity Consumption and Emissions Factors

### 5.18. Vegetation

#### 5.18.1. Land Use Change

##### 5.18.1.1. Unmitigated

#### 5.18.1. Biomass Cover Type

##### 5.18.1.1. Unmitigated

#### 5.18.2. Sequestration

##### 5.18.2.1. Unmitigated

## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

### 6.2. Initial Climate Risk Scores

### 6.3. Adjusted Climate Risk Scores

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

### 7.2. Healthy Places Index Scores

### 7.3. Overall Health & Equity Scores

### 7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data



# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	El Dorado County Broadband
Construction Start Date	5/1/2025
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	55.8
Location	El Dorado County, CA, USA
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	414
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.28

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Linear	1.00	Mile	0.80	0.00	0.00	—	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.80	7.67	9.59	0.02	0.29	0.53	0.71	0.26	0.06	0.27	2,028
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.08	0.10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.4
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.04

### 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2025	0.80	7.67	9.59	0.02	0.29	0.53	0.71	0.26	0.06	0.27	2,028
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2025	0.01	0.08	0.10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	18.4
Annual	—	—	—	—	—	—	—	—	—	—	—
2025	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.04

### 3. Construction Emissions Details

#### 3.1. Horizontal Direction Drilling (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	7.66	8.95	0.02	0.29	—	0.29	0.26	—	0.26	1,915
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.25
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.87
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.20	0.00	0.00	0.03	0.03	0.00	0.01	0.01	35.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.3. Plowing (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	2.56	2.47	< 0.005	0.18	—	0.18	0.17	—	0.17	350
Dust From Material Movement	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.96
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.16
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.5. Line Installation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	1.97	2.04	< 0.005	0.07	—	0.07	0.06	—	0.06	283
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.77
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.13
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.7. Aerial Stringing (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	7.19	9.59	0.02	0.25	—	0.25	0.23	—	0.23	2,028
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.56
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.92
Dust From Material Movement	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.9. Pavement Repair (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—



Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	2.40	3.22	< 0.005	0.10	—	0.10	0.09	—	0.09	490
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.34
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.22
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.11. Microtrenching (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	2.39	3.36	< 0.005	0.10	—	0.10	0.09	—	0.09	500
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.37
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.23
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.13. Trenching (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	5.41	7.70	0.01	0.18	—	0.18	0.16	—	0.16	1,112
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.50
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 4. Operations Emissions Details

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Horizontal Direction Drilling	Linear, Grading & Excavation	5/1/2025	5/1/2025	5.00	1.00	—
Plowing	Linear, Grading & Excavation	5/2/2025	5/2/2025	5.00	1.00	—
Line Installation	Linear, Drainage, Utilities, & Sub-Grade	5/5/2025	5/5/2025	5.00	1.00	—
Aerial Stringing	Linear, Drainage, Utilities, & Sub-Grade	5/6/2025	5/6/2025	5.00	1.00	—
Pavement Repair	Linear, Paving	5/9/2025	5/9/2025	5.00	1.00	—
Microtrenching	Linear, Trenching	5/7/2025	5/7/2025	5.00	1.00	—
Trenching	Linear, Trenching	5/8/2025	5/8/2025	5.00	1.00	—

### 5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Horizontal Direction Drilling	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Horizontal Direction Drilling	Cranes	Diesel	Average	1.00	8.00	367	0.29
Horizontal Direction Drilling	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Horizontal Direction Drilling	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Horizontal Direction Drilling	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Plowing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Line Installation	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Line Installation	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Aerial Stringing	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Aerial Stringing	Cranes	Diesel	Average	1.00	8.00	367	0.29
Aerial Stringing	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Aerial Stringing	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Pavement Repair	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Pavement Repair	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Pavement Repair	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Microtrenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50
Microtrenching	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Trenching	Excavators	Diesel	Average	2.00	8.00	36.0	0.38

Trenching	Tractors/Loaders/Back	Diesel	Average	2.00	8.00	84.0	0.37
-----------	-----------------------	--------	---------	------	------	------	------

### 5.3. Construction Vehicles

#### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Horizontal Direction Drilling	—	—	—	—
Horizontal Direction Drilling	Worker	3.13	14.3	LDA,LDT1,LDT2
Horizontal Direction Drilling	Vendor	0.00	8.80	HHDT,MHDT
Horizontal Direction Drilling	Hauling	0.00	20.0	HHDT
Horizontal Direction Drilling	Onsite truck	—	—	HHDT
Plowing	—	—	—	—
Plowing	Worker	0.00	14.3	LDA,LDT1,LDT2
Plowing	Vendor	0.00	8.80	HHDT,MHDT
Plowing	Hauling	0.00	20.0	HHDT
Plowing	Onsite truck	—	—	HHDT
Line Installation	—	—	—	—
Line Installation	Worker	0.00	14.3	LDA,LDT1,LDT2
Line Installation	Vendor	0.00	8.80	HHDT,MHDT
Line Installation	Hauling	0.00	20.0	HHDT
Line Installation	Onsite truck	—	—	HHDT
Aerial Stringing	—	—	—	—
Aerial Stringing	Worker	0.00	14.3	LDA,LDT1,LDT2
Aerial Stringing	Vendor	0.00	8.80	HHDT,MHDT
Aerial Stringing	Hauling	0.00	20.0	HHDT
Aerial Stringing	Onsite truck	—	—	HHDT
Pavement Repair	—	—	—	—
Pavement Repair	Worker	0.00	14.3	LDA,LDT1,LDT2



Pavement Repair	Vendor	0.00	8.80	HHDT,MHDT
Pavement Repair	Hauling	0.00	20.0	HHDT
Pavement Repair	Onsite truck	—	—	HHDT
Microtrenching	—	—	—	—
Microtrenching	Worker	0.00	14.3	LDA,LDT1,LDT2
Microtrenching	Vendor	—	8.80	HHDT,MHDT
Microtrenching	Hauling	0.00	20.0	HHDT
Microtrenching	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	0.00	14.3	LDA,LDT1,LDT2
Trenching	Vendor	—	8.80	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
------------	--	--	--	--	-----------------------------

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Horizontal Direction Drilling	—	—	0.80	0.00	—
Plowing	—	—	0.80	0.00	—

Line Installation	—	—	0.80	0.00	—
Aerial Stringing	—	—	0.80	0.00	—

### 5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

### 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Linear	0.80	100%

### 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005

### 5.18. Vegetation

#### 5.18.1. Land Use Change

##### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
--------------------------	----------------------	---------------	-------------

#### 5.18.1. Biomass Cover Type

##### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
--------------------	---------------	-------------

#### 5.18.2. Sequestration

### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
-----------	--------	------------------------------	------------------------------

## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	30.3	annual days of extreme heat
Extreme Precipitation	23.4	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	44.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events.

Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	4	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	4	1	1	4
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	67.0
AQ-PM	0.78
AQ-DPM	1.10
Drinking Water	78.5
Lead Risk Housing	—
Pesticides	0.00
Toxic Releases	3.05
Traffic	6.94
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	0.00
Solid Waste	52.9
Sensitive Population	—
Asthma	41.0
Cardio-vascular	23.1
Low Birth Weights	—
Socioeconomic Factor Indicators	—
Education	14.2
Housing	—
Linguistic	—
Poverty	27.0
Unemployment	99.5

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—
Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—

Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	0.0
Asthma ER Admissions	62.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.0
Cognitively Disabled	1.2
Physically Disabled	4.3
Heart Attack ER Admissions	93.0
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	0.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	38.4
SLR Inundation Area	0.0

Children	87.9
Elderly	0.5
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	98.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	98.0
Traffic Density	0.0
Traffic Access	0.0
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	12.0
Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.



## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

## 8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Each construction method would be completed in one day for each individual fiber project.
Construction: Off-Road Equipment	Equipment per HELIX Air Quality Specialist.
Construction: Trips and VMT	Assumes each construction activity will be completed in one day.
Construction: On-Road Fugitive Dust	Assumed all roads would be paved.

# Appendix F

---

## Special-Status Species Potential to Occur Table

### Potential for Special-Status Species to Occur in the Study Area

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<b>Plants</b>			
<i>Allium jepsonii</i> Jepson's onion	--;--;1B.2	Perennial bulbiferous herb that occurs in chaparral, cismontane woodland, and lower montane coniferous forest from 985 - 4330 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Allium tribracteatum</i> three-bracted onion	--;--;1B.2	Perennial bulbiferous herb that occurs in chaparral, lower montane coniferous forest, and upper montane coniferous forest from 3610 - 9845 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Arabis rigidissima</i> var. <i>demota</i> Galena Creek rockcress	--;--;1B.2	Perennial herb that occurs in broadleafed upland forest and upper montane coniferous forest from 7400 - 8400 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Arctostaphylos nissenana</i> Nissenan manzanita	--;--;1B.2	Perennial evergreen shrub that occurs in closed-cone coniferous forest and chaparral from 1475 - 3610 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Astragalus austiniiae</i> Austin's astragalus	--;--;1B.3	Perennial herb that occurs in alpine boulder, rock fields, and subalpine coniferous forest from 8005 - 9745 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	--;--;1B.1	Perennial herb that occurs in chaparral, cismontane woodland, valley, and foothill grassland from 150 - 5100 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Boechea tularensis</i> Tulare rockcress	--;;1B.3	Perennial herb that occurs in subalpine coniferous forest and upper montane coniferous forest from 5990 - 10990 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Botrychium ascendens</i> upswept moonwort	--;;2B.3	Perennial rhizomatous herb that occurs in lower montane coniferous forest, meadows and seeps from 3660 - 9990 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Botrychium crenulatum</i> scalloped moonwort	--;;2B.2	Perennial rhizomatous herb that occurs in bogs and fens, lower montane coniferous forest, meadows and seeps, freshwater marshes and swamps, and upper montane coniferous forest from 4160 - 10760 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Botrychium montanum</i> western goblin	--;;2B.1	Perennial rhizomatous herb that occurs in lower montane coniferous forest, meadows and seeps, and upper montane coniferous forest from 4805 - 7155 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Brasenia schreberi</i> watershield	--;;2B.3	Aquatic perennial rhizomatous herb that occurs in freshwater marshes and swamps from 0 - 7220 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Calochortus clavatus</i> var. <i>avius</i> Pleasant Valley mariposa-lily	--;;1B.2	Perennial bulbiferous herb that occurs in lower montane coniferous forest with Josephine silt loam or volcanic 1000 - 5905 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Calycadenia spicata</i> spicate calycadenia	--;;1B.3	Annual herb that occurs in cismontane woodland, valley and foothill grassland from 130 - 4595 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Calystegia stebbinsii</i> Stebbins' morning-glory	FE;SE;1B.1	Perennial rhizomatous herb that occurs in chaparral openings, and cismontane woodland from 605 - 3575 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Calystegia vanzuukiae</i> Van Zuuk's morning-glory	--;;1B.3	Perennial rhizomatous herb that occurs in chaparral and cismontane woodland from 1640 - 3870 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Camissonia lacustris</i> grassland suncup	--;;1B.2	Annual herb that occurs in chaparral, cismontane woodland, lower montane coniferous forest, valley, and foothill grassland from 590 - 4005 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Carex cyrtostachya</i> Sierra arching sedge	--;;1B.2	Perennial herb that occurs in lower montane coniferous forest that is mesic, meadows and seeps, marshes and swamps, and riparian forest margins from 2000 - 4460 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Carex davyi</i> Davy's sedge	--;;1B.3	Perennial herb that occurs in subalpine coniferous forest and upper montane coniferous forest from 4920 - 10500 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Carex hystericina</i> porcupine sedge	--;;2B.1	Perennial rhizomatous herb that occurs in marshes and swamps on streambanks from 2000 - 7875 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Carex limosa</i> mud sedge	--;--;2B.2	Perennial rhizomatous herb that occurs in bogs and fens, lower montane coniferous forest, meadows and seeps, marshes and swamps, and upper montane coniferous forest from 3935 - 8860 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Carex xerophila</i> chaparral sedge	--;--;1B.2	Perennial herb that occurs in chaparral, cismontane woodland, and lower montane coniferous forest from 1445 - 2525 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Ceanothus roderickii</i> Pine Hill ceanothus	FE;SR;1B.1	Perennial evergreen shrub that occurs in chaparral and cismontane woodland from 805 - 3575 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Chaenactis douglasii</i> var. <i>alpina</i> alpine dusty maidens	--;--;2B.3	Perennial herb that occurs in alpine boulder and granitic rock fields from 9400 - 11155 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	--;--;1B.2	Perennial bulbiferous herb that occurs in chaparral cismontane woodland and lower montane coniferous forest from 805 - 5545 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Claytonia megarhiza</i> fell-fields claytonia	--;--;2B.3	Perennial herb that occurs in alpine boulder, rock fields, and gravelly or rocky subalpine coniferous forest from 8530 - 11590 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Crocانthemum suffrutescens</i> Bisbee Peak rush-rose	--;--;3.2	Perennial evergreen shrub that occurs in chaparral from 245 - 2200 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Diplacus pulchellus</i> yellow-lip pansy monkeyflower	--;;1B.2	Annual herb that occurs in lower montane coniferous forest, meadows, and seeps from 1970 - 6560 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Draba asterophora</i> var. <i>asterophora</i> Tahoe draba	--;;1B.2	Perennial herb that occurs in alpine boulder, rock fields, and subalpine coniferous forest from 8205 - 11500 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Draba asterophora</i> var. <i>macrocarpa</i> Cup Lake draba	--;;1B.1	Perennial herb that occurs in rocky subalpine coniferous forest from 8205-9235 feet elevation (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Elodium blandowii</i> Blandow's bog moss	--;;2B.2	Moss that occurs in meadows and seeps, and subalpine coniferous forest from 6110 - 8860 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Epilobium palustre</i> marsh willowherb	--;;2B.3	Perennial rhizomatous herb that occurs in bogs, fens, and mesic meadows and seeps mesic from 4215 - 7695 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Erigeron miser</i> starved daisy	--;;1B.3	Perennial herb that occurs in rocky upper montane coniferous forest from 6035 - 8595 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Fremontodendron decumbens</i> Pine Hill flannelbush	FE;SR;1B.2	Perennial evergreen shrub that occurs in chaparral and cismontane woodland from 1395 - 2495 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Fritillaria eastwoodiae</i> Butte County fritillary	--;--;3.2	Perennial bulbiferous herb that occurs in chaparral, cismontane woodland, and lower montane coniferous forest openings from 165 - 4920 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Galium californicum</i> ssp. <i>sierrae</i> El Dorado bedstraw	FE;SR;1B.2	Perennial herb that occurs in chaparral, cismontane woodland, and lower montane coniferous forest from 330 - 1920 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Glyceria grandis</i> American manna grass	--;--;2B.3	Perennial rhizomatous herb that occurs in bogs, fens, meadows, seeps marshes and swamps on lake margins or streambanks from 50 - 6495 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Horkelia parryi</i> Parry's horkelia	--;--;1B.2	Perennial herb that occurs in chaparral, cismontane woodland from 260 - 3510 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Jensia yosemitana</i> Yosemite tarplant	--;--;3.2	Annual herb that occurs in lower montane coniferous forest, meadows, and seeps from 3935 - 7545 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Juncus digitatus</i> finger rush	--;--;1B.1	Annual herb that occurs in cismontane woodland openings, lower montane coniferous forest openings, and xeric vernal pools from 2165 - 3600 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Lathyrus sulphureus</i> var. <i>argillaceus</i> dubious pea	--;--;3	Perennial herb that occurs in cismontane woodland, lower montane coniferous forest, and upper montane coniferous forest from 490 - 3050 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.



Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Lewisia kelloggii</i> ssp. <i>hutchisonii</i> Hutchison's lewisia	--;--;3.2	Perennial herb that occurs in upper montane coniferous forest from 2510 - 7760 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Lewisia kelloggii</i> ssp. <i>kelloggii</i> Kellogg's lewisia	--;--;3.2	Perennial herb that occurs in upper montane coniferous forest from 4805 - 7760 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Lewisia longipetala</i> long-petaled lewisia	--;--;1B.3	Perennial herb that occurs in alpine boulder, rock fields, and rocky or mesic subalpine coniferous forest from 8205 - 9595 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Lewisia serrata</i> saw-toothed lewisia	--;--;1B.1	Perennial herb that occurs in broadleafed upland forest, lower montane coniferous forest, and riparian forest from 2525 - 4710 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Meesia uliginosa</i> broad-nerved hump moss	--;--;2B.2	Moss that occurs in bogs, fens, meadows, seeps, subalpine coniferous forest, and upper montane coniferous forest from 3970 - 9200 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Ophioglossum pusillum</i> northern adder's-tongue	--;--;2B.2	Perennial rhizomatous herb that occurs in meadows, seeps, marshes, and swamp margins from 3280 - 6560 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Packera layneae</i> Layne's ragwort	FT;SR;1B.2	Perennial herb that occurs in chaparral and cismontane woodland from 655 - 3560 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Phacelia stebbinsii</i> Stebbins' phacelia	--;--;1B.2	Annual herb that occurs in cismontane woodland, lower montane coniferous forest, meadows, and seeps from 2000 - 6595 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Poa sierrae</i> Sierra blue grass	--;--;1B.3	Perennial rhizomatous herb that occurs in lower montane coniferous forest from 1200 - 4920 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Potamogeton epihydrus</i> Nuttall's ribbon-leaved pondweed	--;--;2B.2	Aquatic perennial rhizomatous herb that occurs in shallow freshwater of marshes and swamps from 1210 - 7125 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Potamogeton praelongus</i> white-stemmed pondweed	--;--;2B.3	Aquatic perennial rhizomatous herb that occurs in deep water of marshes, swamps, and lakes from 5905 - 9845 feet	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Potamogeton robbinsii</i> Robbins' pondweed	--;--;2B.3	Aquatic perennial rhizomatous herb that occurs in deep water of marshes, swamps, and lakes from 5020 - 10825 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Rhynchospora capitellata</i> brownish beaked-rush	--;--;2B.2	Perennial herb that occurs in lower montane coniferous forest, meadows, seeps, marshes, swamps, and upper montane coniferous forest from 150 - 6560 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Rorippa subumbellata</i> Tahoe yellow cress	--;SE;1B.1	Perennial rhizomatous herb that occurs in lower montane coniferous forest, meadows, and seeps from 6200 - 6250 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Sagittaria sanfordii</i> Sanford's arrowhead	--;--;1B.2	Emergent perennial rhizomatous herb that occurs in shallow water of marshes and swamps from 0 - 2135 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Schoenoplectus subterminalis</i> water bulrush	--;--;2B.3	Aquatic perennial rhizomatous herb that occurs in bogs, fens, and montane lake margins of marshes and swamps from 2460 - 7380 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Scutellaria galericulata</i> marsh skullcap	--;--;2B.2	Perennial rhizomatous herb that occurs in lower montane coniferous forest mesic meadows and seeps, marshes, and swamps from 0 - 6890 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Stuckenia filiformis</i> ssp. <i>alpina</i> northern slender pondweed	--;--;2B.2	Aquatic perennial rhizomatous herb that occurs in shallow water of marshes and swamps from 985 - 7055 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Utricularia intermedia</i> flat-leaved bladderwort	--;--;2B.2	Carnivorous, aquatic, perennial, and stoloniferous herb that occurs in bogs, fens, mesic meadows and seeps, lake margins of marshes and swamps, and vernal pools from 3935 - 8860 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Viburnum ellipticum</i> oval-leaved viburnum	--;--;2B.3	Perennial deciduous shrub that occurs in chaparral, cismontane woodland, and lower montane coniferous forest from 705 - 4595 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Wyethia reticulata</i> El Dorado County mule ears	--;--;1B.2	Perennial herb that occurs in chaparral, cismontane woodland, and lower montane coniferous forest from 605 - 2065 feet (CNPS 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<b>Animals</b>			
<b>Invertebrates</b>			
<i>Bombus occidentalis</i> western bumble bee	--;SC; --	Bumble bees are primitively eusocial insects that live in underground colonies made up of one queen, female workers, and reproductive members of the colony. New colonies are initiated by solitary queens, generally in the early spring, which typically occupy abandoned rodent burrows (Thorp <i>et al.</i> 1983). This species occurs in meadows and grasslands with an abundance of floral resources (CDFW 2019). This species is a generalist forager and has been reported visiting a wide variety of flowering plants. A short-tongued bumble bee; select food plants include <i>Melilotus</i> spp., <i>Cirsium</i> spp., <i>Trifolium</i> spp., <i>Centaurea</i> spp., <i>Eriogonum</i> spp., and <i>Chrysothamnus</i> spp. (Koch et al. 2012). This species has a short tongue and typically prefers open flowers with short corollas but is known to chew through the base of flowers with long corollas. The flight period for queens in California is from early February to late November, peaking in late June and late September. New queens hibernate over the winter and initiate a new colony the following spring (Thorp <i>et al.</i> 1983). Rare throughout its range and in decline west of the Sierra Nevada crest.	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT; --; --	Vernal pools ranging from small, clear, sandstone rock pools to large, turbid, alkaline, grassland valley floor pools. It is most frequently found in pools measuring less than 0.05 acre; although it has been collected from vernal pools exceeding 25 acres. The known range within California includes the Central Valley and southern California (USFWS 2005).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	FT; --; --	Endemic to elderberry shrubs ( <i>Sambucus</i> spp.) occurring in riparian habitat in the Sacramento and San Joaquin Valleys, riparian habitats in the Sacramento and San Joaquin Valleys, and less common throughout riparian forests of the Central Valley from Redding to Fresno County (USFWS 2014) typically below 152 m amsl (USFWS 2017).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<b>Fishes</b>			
<i>Catostomus lahontan</i> Lahontan mountain sucker	--;--; SSC	The mountain sucker tends to favor clear water streams with a moderate gradient, with widths of 3 – 15 m and depths of less than 2 m, and rocky or gravelly bottoms. Although not exclusive to high elevations, they are frequently observed in cool mountain streams, being found as high as 2,800 m, and in waters just above freezing temperatures. Found in pools or eddies behind or under rocks and logs (Moyle 2002).	Occurs in rivers and creeks of El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<p><i>Oncorhynchus clarkii henshawi</i> Lahontan cutthroat trout</p>	<p>FT; --; SSC</p>	<p>Lahontan cutthroat trout historically occurred in large freshwater and alkaline lakes, small mountain streams and lakes, small tributary streams, and major rivers of the Lahontan Basin of California, Nevada and Oregon that included the Truckee, Carson, Walker, Susan, Humboldt, Quinn, Summit Lake/Black Rock Desert, and Coyote Lake watersheds (USFWS 2009). This species is an obligatory stream spawner, and requires clear, well-oxygenated, shallow rivers with gravel bottoms with silt free substrate and a 1:1 pool to riffle ratio. Most occupied habitat occurs on federal land, with approximately 38% of habitat occurring on private lands (USFWS 2009). This species is typically limited to the eastern Sierra Nevada in California, but translocated populations are present on the western slope of the Sierra Nevada (USFWS 2009).</p>	<p>This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.</p>
<p><i>Oncorhynchus mykiss irideus pop. 11</i> steelhead - Central Valley DPS</p>	<p>FT; --: SSC</p>	<p>Steelhead spawn in rivers and streams with cool, clear, water and suitable substrate. This distinct population segment includes all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and man-made impassable barriers from the Russian River to Aptos Creek, Santa Cruz County, and their tributaries, including drainages from the San Francisco and San Pablo Bays and their tributaries (NOAA 2012).</p>	<p>This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.</p>

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Prosopium williamsoni</i> mountain whitefish	--;--;SSC	Mountain Whitefish generally inhabit clear, cool waters (< 20° C) of high elevation streams, rivers, and lakes (Moyle 2002). Spawning occurs during late fall to early winter (October - December) in shallow areas of small tributaries or shoreline areas of lakes, primarily over gravel, rubble, or cobble bottoms.	Occurs in Lake Tahoe and surrounding rivers and creeks. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Siphateles bicolor pectinifer</i> Lahontan Lake tui chub	--;--;SSC	The only verified population in California occurs in Lake Tahoe. Schooling fish that inhabit large, deep lakes and feed mostly on zooplankton (Moyle 2002).	Occurs in Lake Tahoe. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<b>Amphibians</b>			
<i>Ambystoma macrodactylum sigillatum</i> southern long-toed salamander	--;--;SSC	Inhabits alpine meadows, high mountain ponds and lakes. Adults spend much of their lives underground, often utilizing the tunnels of burrowing mammals such as moles and ground squirrels (Stebbins and McGinnis 2012).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Hydromantes platycephalus</i> Mount Lyell salamander	--;--;WL	Occurs in rocky areas of mixed conifer, red fir, lodgepole pine, and subalpine forests from 4,000-11,600 feet elevation. Active on the surface only when free water is available in the form of seeps, drips, or spray (CDFW 2024).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Spea hammondi</i> western spadefoot	FT; --; SSC	Occurs in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, and playas. Breeds in vernal pools, depressional wetlands, puddles, and other ephemeral water features including altered or constructed features, often after heavy rains. Breeding sites must remain inundated for at least 3–11 weeks for larvae to mature with water temperatures between 48–86 degrees Fahrenheit	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
		<p>(USFWS 2023a). Spadefoots are primarily terrestrial and require upland habitats for feeding and for constructing burrows for long dry-season dormancy (USFWS 2023a). Spadefoot typically burrow up to 3 feet below the surface and require sandy or friable soils which facilitate digging and water absorption (UWSFWS 2023a). Dispersal through uplands may vary between wet and dry years but is considered to be up to 262 meters in a dry year and up to 605 meters in a wet year, but is typically less (USFWS 2023a).</p>	
<p><i>Rana draytonii</i> California red-legged frog</p>	<p>FT; --; SSC</p>	<p>The California red-legged frog occupies a distinct habitat, combining both specific aquatic and riparian components. The adults require dense, shrubby, or emergent riparian vegetation closely associated with deep (greater than 2 1/3-foot deep) still or slow-moving water. The largest densities of California red-legged frogs are associated with deep-water pools with dense stands of overhanging willows (<i>Salix</i> spp.) and an intermixed fringe of cattails (<i>Typha latifolia</i>). Well-vegetated terrestrial areas within the riparian corridor may provide important sheltering habitat during winter. California red-legged frogs aestivate (enter a dormant state during summer or dry weather) in small mammal burrows and moist leaf litter. They have been found up to 100 feet from water in adjacent dense riparian vegetation. Studies have indicated that this species cannot inhabit water bodies that exceed 70° F, especially if there are no cool, deep portions (USFWS 2002).</p>	<p>This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.</p>



Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<p><i>Rana boylei</i> pop. 3 foothill yellow-legged frog - north Sierra DPS</p>	<p>--; ST; --</p>	<p>The foothill yellow-legged frog occurs along the coastal ranges from Oregon to Los Angeles and along the western side of the Sierra Nevada. This species uses perennial rocky streams in a wide variety of habitats up to 6,400 feet above msl (Jennings and Hayes 1994). This species rarely ventures far from water, is usually found basking in the water, or under surface debris or underground within 165 feet of water. Eggs are laid in clusters attached to gravel or rocks along stream margins in flowing water. Tadpoles typically require up to four months to complete aquatic development. Breeding typically follows winter rainfall and snowmelt, which varies based upon location (Jennings and Hayes 1994; USFWS 2023b). Upland habitat types may include springs, seeps, pools, woody debris, root wads, undercut banks, boulders, and debris (USFWS 2023b). This species has been documented traveling up to 331 meters from breeding habitat, or up to 7 kilometers via a network of drainages and ridges during hot conditions (USFWS 2023b).</p>	<p>This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.</p>
<p><i>Rana boylei</i> pop. 5 foothill yellow-legged frog - south Sierra DPS</p>	<p>FE; SE; --</p>	<p>The foothill yellow-legged frog occurs along the coast ranges from Oregon to Los Angeles and along the western side of the Sierra Nevada. This species uses perennial rocky streams in a wide variety of habitats up to 6,400 feet above msl (Jennings and Hayes 1994). This species rarely ventures far from water, is usually found basking in the water, or under surface debris or underground within 165 feet of water. Eggs</p>	<p>This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.</p>

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
		<p>are laid in clusters attached to gravel or rocks along stream margins in flowing water. Tadpoles typically require up to four months to complete aquatic development. Breeding typically follows winter rainfall and snowmelt, which varies based upon location (Jennings and Hayes 1994; USFWS 2023b). Upland habitat types may include springs, seeps, pools, woody debris, root wads, undercut banks, boulders, and debris (USFWS 2023b). This species has been documented traveling up to 331 meters from breeding habitat, or up to 7 kilometers via a network of drainages and ridges during hot conditions (USFWS 2023b).</p>	
<p>Lithobates pipiens northern leopard frog</p>	<p>--;--;SSC</p>	<p>A highly aquatic frog that is found near quiet, permanent and semi-permanent water in many habitats from sea level to 2,130 meters above msl. Native range of this species is east of the Sierra Nevada – Cascade Crest, other occurrences in California are considered to be introduced. Species requires shoreline cover, submerged/emergent aquatic vegetation for cover and reproduction, which occurs from December to June. Home range is unknown, most adults likely move less than 12 meters, but make unpredictable and potentially extensive movements during or immediately following warm rains (Zeiner et al. 1990).</p>	<p>This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.</p>

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<p>Rana sierrae Sierra Nevada yellow-legged frog</p>	<p>FE; SE; WL</p>	<p>A high elevation frog that requires permanent water bodies that do not freeze solid over winter, which may include lakes, streams, tarns, perennial plunge pools in intermittent streams. Aquatic habitat for overwintering must be a minimum of 5.6 feet, but 8.2 feet or deeper or other habitat structures is preferred to avoid freezing conditions (USFWS 2016). Tadpoles require two years to develop, so water bodies that do not freeze solid or dry up during normal years are essential (USFWS 2016). This species has a maximum known upland movement of 82 feet from streams and up to 984 feet between water bodies around lakes (USFWS 2016).</p>	<p>This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.</p>
<b>Reptiles</b>			
<p><i>Actinemys marmorata</i> northwestern pond turtle</p>	<p>PT; --; SSC</p>	<p>Occurs in a variety of aquatic habitats; typically, semi-permanent ponds, lakes, streams, irrigation ditches, canals, marshes, or pools in intermittent drainages. Prefers areas lined with abundant vegetation and either rocky or muddy substrates. Requires basking sites such as logs, rocks, cattail mats or exposed banks. Active from February to November, and breeding occurs from April to May. Females typically nest in compact and dry soils from 3 to 400 meters from water, with a preference for south facing slopes between 0 and 60 degrees with little vegetation cover, however pond turtles occurring in forested areas will select nest sites under forest canopy that is more open. Overwintering occurs in upland terrestrial habitats close to water sources in open areas (up to 500</p>	<p>This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.</p>

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
		meters from water), in which they will bury themselves under loose soil where leaf litter is present (USFWS 2023c). In intermittent water systems, this species spends less time in water and more time at refuges sites in uplands.	
<i>Phrynosoma blainvillii</i> coast horned lizard	--;--; SSC	Occurs in the Coast Ranges, southwestern Sierra Nevada, Transverse and Peninsular Ranges, and the southern deserts. Requires sandy soils, chaparral vegetation, and native ant prey (Jennings and Hayes 1994). This species may also occur in oak woodlands, annual grasslands, and coastal scrub vegetation communities (Thomson <i>et al.</i> 2016).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<b>Birds</b>			
<i>Accipiter atricapillus</i> American goshawk	--;--;SSC	Nests and forages in mature and old-growth forest stands in a broad range of conifer and coniferous hardwood types, including Pacific Ponderosa, Jeffrey and lodgepole pine, mixed conifer, firs, and pinyon-juniper with relatively dense canopies. May also forage in meadow edges and open sagebrush. Nesting and fledgling period: March 1 – August 15 (Woodbridge and Hargis 2006).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Accipiter striatus</i> sharp-shinned hawk	--;--;WL	Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. North facing slopes, with plucking perches are critical requirements. Generally, nests relatively close to water (Zeiner <i>et al.</i> 1990).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Agelaius tricolor</i> tricolored blackbird	--; ST; SSC	Common locally throughout central California. Nests and seeks cover in emergent wetland vegetation and thorny vegetation such as Himalayan blackberry ( <i>Rubus armeniacus</i> ) as well as cattails and tules. Nesting area must be large enough to support a minimum colony of 50 pairs as they are a highly colonial species. Forages on ground in croplands, grassy fields, flooded land, and edges of ponds for insects (Shuford and Gardali 2008).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Aquila chrysaetos</i> golden eagle	--; --; FP	Typically occurs in rolling foothills, mountain areas, deserts, and other open habitats up to 3,822 meters elevation. Typically nests on cliff ledges or large trees in open areas in canyons. Will occasionally use other tall structures for nesting, such as electrical transmission towers. Prey consists mostly of rodents, carrion, birds, reptiles, and occasionally small livestock (Zeiner et al. 1990).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Asio otus</i> long-eared owl	--;--; SSC	Requires riparian habitat for roosting and nesting. Typically nests in open forests, such as conifer, oak or pinyon-juniper forests, or in dense forests on the edge of grasslands or another open habitat. Will nest in old hawk or corvid nests, squirrel nests, woodrat nests or mistletoe brooms (Shuford and Gardali 2008). Usually forages in open habitat and rarely in wooded areas.	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Elanus leucurus</i> white-tailed kite	--;--;FP	Raptor that inhabits rolling foothills and valley margins with scattered oaks, as well as river bottomlands or marshes next to deciduous woodland. Nests in isolated, dense-topped trees in open areas. Forages in a variety of habitats including grassland, marshes, and agricultural fields (Zeiner <i>et al.</i> 1990).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Empidonax traillii</i> willow flycatcher	--;SE; --	Nests in expansive montane riparian or wet meadows in shrubs, typically willows up to 10 feet high. Forages in willow thickets or in adjacent meadows (Zeiner <i>et al.</i> 1990). Typically found nesting between 600 – 2,500 m amsl (Zeiner <i>et al.</i> 1990).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Falco peregrinus anatum</i> American peregrine falcon	Delisted?	Falcon that breeds on steep cliff faces near wetlands. Nests are minimal and may consist of a scrape and are located high on protected ledges or cliffs, including man-made structures. Forages on the wing by swooping on flying prey (Zeiner <i>et al.</i> 1990).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Pandion haliaetus</i> osprey	--;--;WL	Osprey breed in Northern California from the Cascade Ranges southward to Lake Tahoe, and along the coast south to Marin County. They prey primarily on fish but also predate small mammals, birds, reptiles, and invertebrates. Foraging areas include open, clear waters of rivers, lakes, reservoirs, bays, estuaries, and surf zones. Habitat and nesting requirements include large trees, snags, and dead-topped trees in open forest habitats for cover and nesting (Zeiner <i>et al.</i> 1988-1990).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Haliaeetus leucocephalus</i> bald eagle	Delisted; SE; FP	Occurs in a variety of habitats near large aquatic resources such as river systems, lakes, ocean shorelines and coastal wetlands. Nests in mature trees or snags, often in remote mixed stands adjacent to water. Suitable foraging habitat consists of large bodies of water with abundant fish and adjacent perching sites such as snags or large trees. Nests are usually located within a 1-mile radius of water. Nests are most often situated in large trees with a commanding view of the area (Zeiner et al. 1990).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Laterallus jamaicensis coturniculus</i> California black rail	--; ST; FP	Inhabits brackish marsh, primarily in the upper marsh zone dominated by alkali heath ( <i>Frankenia salina</i> ), cattail, and rush ( <i>Juncus</i> spp.); prefers lower salinity environments. In the Sierra Nevada foothills, black rail is a year-round resident along wetland edges where water is 1.2 inches or less (Richmond et al. 2010). Black rail is typically associated with perennial wetlands associated with flowing water such as irrigation canals, perennial streams, and springs with dense vegetation in the Sierra Nevada foothills (Richmond et al. 2010). Forages on the ground, under cover of dense vegetation (Richmond et al. 2010).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Strix nebulosa</i> great gray owl	--;SE; --	Lives in mixed conifer or red fir forest in or on the edge of meadows. Requires large diameter snags (greater than 60 cm in diameter) in a forest with a high canopy closure which provide a cool sub-canopy microclimate. Snags include conifers and oaks (Wu et al. 2015). They typically use larger quality meadow habitat areas of at least 25 acres (Beck and Winter 2000) and select territories by the abundance of prey. Nests tend to be within 250 m of quality meadow habitat at higher elevations (above 1,800 m amsl). At lower elevations, it was documented that nearly a third of nests were greater than 750 m from meadows (at elevations from 700 m – 1,500 m), and likely not associated with meadows (Wu et al. 2015).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Riparia riparia</i> bank swallow	--; ST; --	Found primarily in riparian and lowland habitat in California. Nests in colonies along cliffs or steep riverbanks in holes. In California, a majority of the population is situated along the Sacramento River and the Feather River. Other smaller populations persist near Monterey and north of Shasta counties (Zeiner et al. 1990).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.



Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	--;--;SSC	Occurs in California mainly as a summer migrant, but small numbers over-winter in the southern San Joaquin Valley and deserts. Breeds in marshes with tall emergent vegetation, generally along edges over deep water. Usually forages on seeds and aquatic insects within individual territories but may use nearby agricultural fields if resources are scarce (Shuford and Gardali 2008).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<b>Mammals</b>			
<i>Antrozous pallidus</i> pallid bat	--;--;SSC	Occurs throughout California except for the high Sierra Nevada and the northern Coast Ranges. Habitats include grasslands, shrublands, woodlands, and forests from sea level to 6,000 feet. Most common in open, dry habitats with rocky areas for roosting; roosts also include cliffs, abandoned buildings, bird boxes, and under bridges (Bolster, ed. 1998).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Aplodontia rufa californica</i> Sierra Nevada mountain beaver	--;--; SSC	Sierra Nevada mountain beaver has a limited range in the Sierra Nevada, California and Nevada. This subspecies is patchily distributed in cool, moist habitats from 1,675 to 3,050 meters elevation. Typically maintains burrow systems through the narrow willow fringes along streams. Meadows areas with deep soils for burrowing adjacent to streams are preferred (Beier 1989).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	--;--; SSC	Widely distributed throughout California except alpine and subalpine habitats. This species eats moths, beetles, and other insects which it catches on the wing or by gleaning from vegetation. Typically found near water since it is poor at concentrating	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
		its urine. This species uses caves, mines, tunnels, buildings, and human-made structures for roosting. Maternity roosts are typically in warm sites. Hibernation sites are typically cold, but not freezing. This species is very sensitive to disturbance and may abandon its roost after one visit (Zeiner <i>et al.</i> 1990).	
<i>Lepus americanus tahoensis</i> Sierra Nevada snowshoe hare	--;--;SSC	The Sierra Nevada snowshoe hare occurs in riparian communities characterized by thickets of deciduous trees and shrubs such as willows and alders (Williams 1986). During the summer, snowshoe hares in the Lake Tahoe area are associated with brush situated close to meadows or deciduous riparian vegetation rather than on ridgetops or brush-covered upper slopes.	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Vulpes vulpes necator pop. 2</i> Sierra Nevada red fox - Sierra Nevada DPS	FE; ST; --	Habitat consists of subalpine habitat characterized by a mosaic of high-elevation meadows, rocky areas, scrub vegetation, and woodlands. Has been documented migrating down to high elevation forested habitats below subalpine zones in the Sierra Nevada from 6,000 to 9,000 feet elevation in the Cascades (USFWS 2018). Opportunistic predator of rodents and lagomorphs and also eats seeds such as pine nuts. Currently in California, this species is limited to a small population near Sonora Pass and another near Mt. Lassen (USFWS 2018). These populations include hybrids.	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Pekania pennanti</i> Fisher	--;--;SSC	Occupy late-successional conifer and mixed conifer-hardwood forests with an abundance of downed wood, snags, large trees, and a dense canopy (Zielinski 2014). Typically found at elevations from 1,070 – 2,135 m amsl, where persistent snow does not accumulate and impede movement (Zielinski 2014). Riparian forests and habitat close to open water such as streams are important. Cavities and branches in trees, snags, stumps, rock piles, and downed timber are used as resting sites, and large diameter live, or dead trees are selected for natal and maternal dens (Zielinski 2014). There is a significant gap in the range of fisher between the southern Sierra Nevada population and the northern Sierra Nevada/southern Cascade population that stretches approximately 400 km wide (Zielinski 2014).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.
<i>Gulo gulo</i> wolverine	FT; ST; FP	Found in alpine, subalpine, and riparian habitats in remote areas with low levels of human use. In the Sierra Nevada may also use red fir, mixed conifer and lodgepole forests, typically above 1,311 meters elevation in areas that typically support deep snow through May in most years (Spencer and Rustigian-Romsos 2012). Dens in caves, cliffs, log hollows and/or burrows (Zeiner et al. 1990). Considered to be extirpated from California (Moriarity <i>et al.</i> 2009). Recent wolverine detections in California were determined to be dispersers from Idaho (Moriarity <i>et al.</i> 2009).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

Scientific Name/ Common Name <sup>1</sup>	Status <sup>2</sup>	Habitat, Ecology and Life History	Potential to Occur <sup>3</sup>
<i>Taxidea taxus</i> American badger	--;--;SSC	Inhabits drier open stages of most shrub, forest, and herbaceous habitats with loose, friable soils. Preys on a wide variety of mammals, reptiles, birds, and carrion, and hunts mostly by digging out fossorial prey. Occasionally takes prey on the surface. Not tolerant of cultivation. No longer occur in the Central Valley except in the extreme western edge (Williams 1986).	This species is known to occur in El Dorado County. A site-specific analysis will be required to determine its potential to occur within the project footprint of the proposed broadband infrastructure.

<sup>1</sup> Sensitive species reported in CNDDB or CNPS on various USGS quads within the County, or in USFWS lists for the County.

<sup>2</sup> Status is as follows: Federal (ESA) listing/State (CESA) listing/other CDFW status or CRPR. F = Federal; S = State of California; E = Endangered; T = Threatened; C = Candidate; FP=Fully Protected; SSC=Species of Special Concern; WL=Watch List.

<sup>3</sup> Status in the potential project site is assessed as follows: This species has one or more documented occurrences within the County of El Dorado, and there is suitable habitat present for this species. A site-specific analysis will be required to further determine its potential to occur.

CRPR = California Rare Plant Rank: 1B – rare, threatened, or endangered in California and elsewhere; 2B – rare, threatened, or endangered in California but more common elsewhere. Extension codes: .1 – seriously endangered; .2 – moderately endangered.

## REFERENCES

- Beck, T.W. and J. Winter. 2000. Survey Protocol for the Great Gray Owl in the Sierra Nevada. USDA Forest Service; Pacific Southwest Region. Vallejo, CA.
- Beier, P. 1989. Use of habitat by mountain beaver in the Sierra Nevada, *J. Wildl. Manage.* 53:649-654.
- Bolster, B.C., editor. 1998. Terrestrial Mammal Species of Special Concern in California. Draft Final Report prepared by P.V. Brylski, P.W. Collins, E.D. Pierson, W.E. Rainey and T.E. Kucera. Report submitted to California Department of Fish and Game Wildlife Management Division, Nongame Bird and Mammal Conservation Program for Contract No. FG3146WM.
- California Department of Fish and Wildlife (CDFW). 2019. Report to the Fish and Game Commission: Evaluation of the Petition from the Xerces Society, Defenders of Wildlife and the Center for Food Safety to List Four Species of Bumble Bees as Endangered Under the California Endangered Species Act. April 2019. Special California Department of Fish and Wildlife, Sacramento, California, USA.
- California Native Plant Society (CNPS), Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Accessed October 15. Available at: <https://www.rareplants.cnps.org>.
- Jennings, M.R., and M.P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California.
- Koch, J., J. Strange, and P. Williams. 2012. Bumble bees of the Western United States. USDA-Forest Service, Pollinator Partnership. Washington, DC. 144 pp.
- Moriarty, K.M., W.J. Zielinski, A.G. Gonzales, T.E. Dawson, K.M. Boatner, C.A. Wilson, F.V. Schlexer, K.L. Pilgrim, J.P. Copeland, and M.K. Schwartz. 2009. Wolverine confirmation in California after nearly a century: native or long-distance migrant? *Northwest Science* 83: 154-162.
- Moyle, P. 2002. *Inland Fishes of California*, 2nd Edition, Berkely. University of California Press.
- National Oceanic and Atmospheric Administration (NOAA). 2012. Contrasts in Habitat Characteristics and Life History Patterns of *Oncorhynchus mykiss* in California's Central Coast and Central Valley. Accessed October 15, 2024. Available at: <https://www.noaa.gov/sites/default/files/legacy/document/2020/Oct/07354626446.pdf>.
- Richmond, O.W., Chen, S.K., Risk, B.B., Tecklin, J., and S. R. Beissinger. 2010. California Black Rails Depend on Irrigation-fed Wetlands in the Sierra Nevada Foothills. *California Agriculture: Volume 2, Number 2*.
- Shuford, W.D., and T. Gardali, editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. *Studies of Western Birds* 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

- Spencer, W.D., and Rustigian-Romsos, H. 2012. Decision-support maps and recommendations for conserving rare carnivores in the interior mountains of California. Corvallis, OR: Conservation Biology Institute.
- Stebbins, Robert C., and McGinnis, Samuel M. Field Guide to Amphibians and Reptiles of California: Revised Edition (California Natural History Guides) University of California Press, 2012.
- Thomson, R.C., Wright, A.N., and H.B. Shaffer. 2016. California Amphibian and Reptile Species of Special Concern. Oakland, California: University of California Press.
- Thorp, R. W., D. S Horning, and L. L. Dunning. 1983. Bumble bees and cuckoo bumble bees of California (Hymenoptera: Apidae). Bulletin of the California Insect Survey 23: viii.
- U.S. Fish and Wildlife Service (USFWS).2023a. Species Status Assessment Report for the Western Spadefoot (*Spea hammondi*), Version 1.1. May 2023. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento, California.
- 2023b. Species status assessment report for the foothill yellow-legged frog (*Rana boylii*), Version 2.11. April 2023. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento, California.
- 2023c. Species status assessment report for the northwestern pond turtle (*Actinemys marmorata*) and southwestern pond turtle (*Actinemys pallida*), Version 1.1, April 2023. U.S. Fish and Wildlife Service, Ventura Fish and Wildlife Office, Ventura, California.
2018. Species Status Assessment Report for the Sierra Nevada Distinct Population Segment of the Sierra Nevada Red Fox. US Fish and Wildlife Service Region 8 Sacramento, CA
2017. Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*). U.S. Fish and Wildlife Service; Sacramento, California. 28 pp.
2016. 50 CFR Part 17 RIN–1018–AY07 Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Sierra Nevada Yellow-legged frog, the Northern DPS of the Mountain Yellow-legged Frog, and the Yosemite Toad; Final Rule. Federal Register Vol. 81, No. 166. August 26.
2014. 50 CFR Part 17 RIN–1018–AV29 Endangered and Threatened Wildlife and Plants; Withdrawal of the Proposed Rule to Remove the Valley Elderberry Longhorn Beetle from the Federal List of Endangered and Threatened Wildlife. Federal Register Vol. 79, No. 180. September 17.
2009. 5-Year Review: Summary and Evaluation. Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*). Region 8, Sacramento, California. 199 pp.
2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Region 1, U.S. Fish and Wildlife Service, Portland, OR. December 15.
2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon. viii + 173 pp.

- Williams, D.F. 1986. California Mammal Species of Special Concern in California. Department of Biological Sciences California State University, Stanislaus and California Department of Fish and Game, Sacramento.
- Woodbridge, B. and Hargis, C.D. 2006. Northern goshawk inventory and monitoring technical guide. Gen. Tech. Rep. WO-71. Washington, DC: U.S. Department of Agriculture, Forest Service. 80 p.
- Wu, J.X., Siegel, R.B., Loffland, H.L., Tingley, M.W., Stock, S.L., Roberts, K.N., Keane, J.J., Medley, J.R., Bridgman, R., and C. Stermer. 2015. Diversity of Great Gray Owl Nest Sites and Nesting Habitats in California. *Journal of Wildlife Management* 79(6): 937–947.
- Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California.
- Zielinski, W. J. 2014. The forest carnivores: marten and fisher. General Technical Report: PSW-GTR-247. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station.