

## 5.20 Wildfire

### 5.20.1 Environmental Setting

Wildfires are increasingly common in the western United States, including California (EPA 2016). California is especially prone to wildfires during the hot and dry summer months, when dry vegetation can quickly ignite. Wildfires have numerous causes, such as unpermitted campfires, sparks from vehicles or utility lines, natural events such as lightning strikes, and presenting a significant hazard to both the health and wellbeing of California residents and to existing facilities and infrastructure.

#### Wildfire Hazards

The California Department of Forestry and Fire Protection (CAL FIRE) identifies and maps areas of substantial fire hazards based on fuels, terrain, weather, and other relevant factors (CAL FIRE 2012a). CAL FIRE maps indicate that the proposed project area and vicinity are within a State Responsibility Area (SRA) and classified as a “Very High” Fire Hazard Severity Zone (CAL FIRE 2007). CAL FIRE identifies a fire hazard as a measure of the likelihood of an area burning and the intensity and speed with which it would burn. Fire hazard maps are developed based on the vegetation, topography, and weather in an area and how these factors may contribute to the potential for wildland fires (CAL FIRE 2012a).

During the 2013 Clover Fire, over 8,000 acres, 68 residences, and 128 outbuildings were destroyed in the community of Igo, the western terminus of the proposed fiber optic cable route (CAL FIRE 2013). In summer 2018, the southernmost extent of the 229,651-acre Carr Fire reached Igo. In total, the Carr Fire damaged more than 1,000 structures located north of the proposed project area (CAL FIRE 2019).

Shasta County’s 2011 Multi-Jurisdictional Hazard Mitigation Plan notes that the area in the vicinity of the proposed project the community of Igo are located in the “Brush Area” of the county. The Brush Area is characterized as urbanized, with structures typically having single, unmaintained roads for fire emergency access. The threat to life and property from wildlife in these areas is considered high. Additionally, as described in greater detail in Section 5.4, “Biological Resources,” the dominant natural community throughout the proposed project area is Blue Oak-Digger Pine Woodland, with some Northern Yellow Pine Forest located in Igo. The Multi-Jurisdictional Hazard Mitigation Plan notes that fire suppression and exclusion in the western United States, including California, has caused increasingly intense wildfires within mixed-conifer forest types. Rather than the low-intensity fires historically common in these natural communities, very intense and highly severe fires are increasingly common. (Shasta County and City of Anderson 2011)

#### Emergency Evacuation Routes

The Shasta County Emergency Operations Plan does not identify any roads in the proposed project area as emergency evacuation routes (Shasta County 2014).

#### Wildfire Management

Battalion 4 of the Shasta County Fire Department and Volunteer Fire Community 50 Igo-Ono provide firefighting and emergency response services for automobiles, boats, structures, traffic collisions, and more. However, wildland firefighting services are generally beyond the scope of local fire departments. The majority of the proposed project would fall within an SRA for wildfire control and management. In an SRA, the State of California maintains the financial responsibility for wildfire protection and management. The proposed project area also would run adjacent to small segments of land considered a Federal Responsibility Area (FRA), where the federal government is financially responsible for wildfire management; most of the land north of the proposed project area falls under FRA designation (CAL FIRE

2007). This includes U.S. Forest Service land within Shasta-Trinity National Forest, and National Park Service land within the Whiskeytown National Recreation Area.

Because wildfires may spread rapidly beyond established property boundaries, state agencies, including CAL FIRE, often work cooperatively with federal agencies, such as the U.S. Forest Service, the Bureau of Land Management, and the National Park Service to help promptly contain wildfires and prevent further spreading (CAL FIRE 2012b). Therefore, while SRAs and FRAs function to identify the agencies financially responsible for wildfire management in a specific area, any number of agencies may respond to a wildfire in either responsibility area based on wildfire containment needs.

## 5.20.2 Regulatory Setting

### Federal

**Department of the Interior Department Manual Part 620: Wildland Fire Management.** Part 620 of the Department of the Interior Departmental Manual pertains to wildland fire management policies, with the goal of providing an integrated approach to wildland fire management. The guiding principles of the plan emphasize the need for public health and safety considerations, risk management protocols, inter-agency collaboration, and economic feasibility of wildfire management practices, as well as the ecological role of wildfires (DOI 2017).

**Federal Wildland Fire Management Policy.** The 2009 update to the Federal Wildland Fire Management Policy, as implemented by the “Guidance for Implementation of Federal Wildland Fire Management Policy,” recommends fire management strategies and programs that promote inter-agency collaboration, improve land management methods, ensure public safety, and recognize the ecological role of wildfires. (USDA and DOI 2009)

### State

**State of California Government Code Section 51179.** California Government Code Section 51179 requires that local agencies designate “Very High” Fire Hazard Severity Zones within their jurisdiction, unless existing standards are equal to or more restrictive than Very High Fire Hazard Severity Zones. Local governments may designate additional areas not previously identified as “Very High” Fire Hazard Severity Zones based on substantial evidence, including surrounding vegetation that could function as wildfire fuel, regional topography, and weather patterns. Upon designation, areas identified as Very High Fire Hazard Severity Zones are subject to protective restrictions on activities such as building construction and road width requirements to ensure that land use patterns are consistent with wildfire management, prevention strategies, and containment needs (State of California 2018).

**California Senate Bill No. 1241.** California Senate Bill No. 1241 requires that the Safety Element component of city or county general plans incorporate fire risk in SRAs and Very High Fire Hazard Severity Zones. It also requires that the State of California Office of Planning and Research coordinate with CAL FIRE to develop guidelines to ensure that wildfire risk is adequately evaluated under CEQA (State of California 2016).

**Strategic Fire Plan for California.** On an annual basis, the State of California Board of Forestry and Fire Protection works collaboratively with CAL FIRE to produce an updated fire plan that describes policies intended to help the State of California better respond to wildfire emergencies. The plan emphasizes the need to manage wildfires in a way that protects lives while ensuring ecosystem health and sustainability. It also discusses collaborative interagency strategies for wildfire management that help contain wildfires to minimize spreading. To implement the policies described in the statewide Strategic

1 Fire Plan for California, CAL FIRE has established 21 units and six counties that develop their own  
2 individual Strategic Fire Plans, also updated annually.

3  
4 **Underground Service Alert (DigAlert).** California Government Code 4216 et seq. defines mandatory  
5 notification procedures for subsurface excavations and installations. Pursuant to Section 4216 et seq., the  
6 applicant must contact the Underground Service Alert of Northern California, also known as DigAlert, at  
7 least two, but no more than 14, working days prior to conducting excavation activities for each  
8 component of the proposed project. DigAlert ensures that project activities do not encounter existing  
9 utility infrastructure that could present an accidental fire risk, such as natural gas lines (Underground  
10 Service Alert of Southern California 2018).

## 11 12 **Local**

13 **Shasta County Multi-Jurisdictional Hazard Mitigation Plan.** The Shasta County Multi-Jurisdictional  
14 Mitigation Plan identifies and analyzes existing hazards within Shasta County. Chapter 4.3.2 identifies  
15 wildfire risk within the county, including risks specific to the wildland-urban interface in which the  
16 proposed project would be located. The plan implements and sustains actions that reduce wildfire  
17 vulnerability and risk, or that would reduce the severity of wildfire impacts to people and property in  
18 Shasta County. (Shasta County and City of Anderson 2011)

19  
20 **Shasta County General Plan.** The Shasta County General Plan provides policy direction for land  
21 development in unincorporated Shasta County. Chapter 5.0, the Public Safety Group, describes  
22 circumstances that define basic constraints on land use as they pertain to public safety. Chapter 5.4 Fire  
23 Safety and Sheriff Protection discusses wildland fires and non-wildland fires as two distinct hazards in  
24 Shasta County. The plan describes common Shasta County vegetation types that often fuel wildfires, and  
25 identifies responsible fire control agencies in Shasta County. (Shasta County 2004)

26  
27 **Shasta-Trinity Unit Strategic Fire Plan.** To implement the policies and strategies described in the  
28 Strategic Fire Plan for California (see Section 5.20.2, “Regulatory Setting,” “State,” above), CAL FIRE  
29 has identified 21 units and six counties that must develop localized Strategic Fire Plans. The Shasta-  
30 Trinity Unit Strategic Fire Plan establishes fire management strategies within SRAs. The plan locally  
31 incorporates goals from the Strategic Fire Plan for California to better focus implementation. Specifically,  
32 the Shasta-Trinity Unit Strategic Plan describes the brush-dominant vegetation (see Section 5.20.1,  
33 “Environmental Setting,” above) as an area historically prone to wildfire events. The plan also describes  
34 local firefighting capacity and outlines pre-fire management strategies specific to the region. (Shasta  
35 County Fire Department and CAL FIRE 2018)

## 36 37 **5.20.3 Environmental Impacts and Mitigation Measures**

38  
39 Potential project impacts associated with wildfire risk were evaluated according to significance criteria in  
40 Appendix G of the CEQA Guidelines. Both the construction and maintenance/operations phases were  
41 considered; however, because the construction phase could result in physical changes to the environment,  
42 analysis of construction phase effects warranted a more detailed evaluation.

### 43 44 **Applicant Proposed Measures**

45 On December 28, 2018, the California Natural Resources Agency adopted the revised CEQA Guidelines,  
46 which included the addition of a new wildfire impact analysis. The Proponent’s Environmental  
47 Assessment for the proposed project was published in 2015; therefore, no project applicant-proposed  
48 measures (APMs) are directed specifically towards wildfire risk mitigation. However, applicable APMs  
49 from other resource area sections that pertain to safety and fire management are incorporated where  
50 relevant when their implementation would minimize or avoid potential project impacts related to

1 wildfires. Additionally, Mitigation Measure (MM) GEN-1 requires implementation of all project APMs  
2 to mitigate impacts, including those pertaining to wildfires. A list of all proposed project APMs is  
3 included in Table 4-2 in Chapter 4, “Project Description.”

4 **Significance Criteria**

5 Table 5.20-1 describes the significance criteria from Appendix G of the CEQA Guidelines’ wildfire  
6 section, which the CPUC used to evaluate the environmental impacts of the proposed project.  
7

Table 5.20-1 Wildfire Checklist

If located in or near state responsibility areas or lands classified as “Very High” Fire Hazard Severity Zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

8  
9 **a. Would the project substantially impair an adopted emergency response plan or emergency**  
10 **evacuation plan?**

11  
12 Construction of the proposed project would occur in and along existing Shasta County roads, roadways,  
13 and rights-of-way (ROWs). Such activities would result in temporary, short-term lane closures throughout  
14 the proposed project area, but would not result in the permanent closure of any roads or lanes. Directional  
15 boring would be used to install 5 miles of the cable alignment in 1,500-foot increments via three to four  
16 bore shots per day. Bulldozers would be used along 10.3 miles of the cable alignment in 1,000-foot  
17 increments. When required, traffic control would be set up for construction and maintenance.  
18

19 Shasta County’s Emergency Operations Plan does not designate any roads within the proposed project  
20 area as major transportation or evacuation routes. However, in the event of a wildfire emergency either  
21 within or outside of the proposed project area, project-related equipment staged or operating within public  
22 ROW could impede emergency wildfire responder access. Once operational, project maintenance to  
23 service the fiber optic cables from the Digital Loop Carrier cabinets would involve parking a vehicle in a  
24 safe location along the existing roadway, on an as-needed basis. While maintenance activities would be  
25 minimal, vehicles staged on the roadside to conduct operational maintenance could potentially interfere  
26 with emergency response or evacuation. However, implementation of MM TRA-2 would require the  
27 applicant to perform such activities in a manner that maintains emergency access on roadways at all  
28 times. With the implementation of MM TRA-2, impacts would be less than significant under this  
29 criterion.

1  
2 **Significance: Less than significant with mitigation.**

3  
4 *b. Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and*  
5 *thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled*  
6 *spread of a wildfire?*

7  
8 Wildfires present direct hazards, such as threats to life, property, and infrastructure, as well as secondary  
9 hazards, such as exposing populations to particulate air pollutants that are harmful to human health.  
10 Smoke, ash, and other particulate air pollutants can be hazardous to both healthy and susceptible  
11 populations. Populations near wildfires are at the greatest risk of exposure to these pollutants.  
12 Furthermore, as described in greater detail in Section 5.6, “Geology and Soils,” the proposed project  
13 would be sited along roadsides with relatively flat topography on either side of the proposed fiber-optic  
14 telecommunications cable. The construction of the proposed project would not alter existing site  
15 topography or create slopes that would increase topographic susceptibility to wildfires and subsequently  
16 expose people to such risks.

17  
18 Additionally, as described in greater detail in Section 5.13, “Population and Housing,” the proposed  
19 project would not directly induce substantial population growth in the vicinity. However, indirect  
20 population growth could occur as a result of the proposed project; while the proposed project is meant to  
21 serve existing residents, an extension of infrastructure could indirectly accommodate future growth by  
22 providing new telecommunications infrastructure to an area that previously did not have access.  
23 Therefore, while implementation of the proposed project would not directly increase the amount of  
24 individuals that may be subject to wildfire-related risks within the vicinity, additional individuals could be  
25 exposed to such hazards as a result of indirect population growth. Overall, however, substantial indirect  
26 population growth is not expected, because the proposed project would not involve installation of  
27 additional utility infrastructure required to support additional housing in the vicinity.

28  
29 Furthermore, high wind speeds can carry wildfire smoke and suspended particulate matter substantial  
30 distances, degrading air quality in locations both near and far from the wildfire. While wildfires can occur  
31 at any time of year, wildfires in California occur predominantly in the summer and fall months. Wind  
32 speeds in Redding, California, in July and August 2018, the months in which the Carr Fire occurred near  
33 the proposed project area, were regularly sustained between 15 and 20 miles per hour, with maximum  
34 wind speed reaching 30 miles per hour (Weather Underground 2019). Regular heavy winds such as these  
35 not only increase the rate at which a wildfire can spread, but also carry ash and other pollutants in the  
36 direction of the wind.

37  
38 As described in Section 5.20.1, “Environmental Setting,” above, the proposed project would be located in  
39 an area designated as a Very High Fire Hazard Severity Zone. Areas situated within a Very High Fire  
40 Hazard Severity Zone are naturally more susceptible to wildfires than areas outside of this designated  
41 zone. Current climatic conditions within the proposed project area such as high wind speeds and hot, dry  
42 summers elevate the regional wildfire risk. Therefore, a current wildfire event within or near the proposed  
43 project area could potentially expose people both within the proposed project area vicinity and within the  
44 broader region to windborne pollutants from the wildfire.

45  
46 While the proposed project would not affect wind conditions or the surrounding topography, construction  
47 activities would involve the operation of construction equipment and support vehicles adjacent to  
48 wildlands. Because the area surrounding the proposed project would be located within a Very High Fire  
49 Hazard Severity Zone and is historically prone to wildfires, there is potential risk of fire ignition by  
50 equipment parked on dry vegetation. Any flammable liquids, such as gas and oil, spilled during  
51 construction would also contribute to an increased risk of fire if ignited by an open flame or spark.

1  
2 To minimize the potential that the proposed project would increase the risk of wildfire during the  
3 construction phase, the applicant would implement **APM HAZ-1, APM HAZ-2, and APM HAZ-5.**  
4 These measures would reduce the risk of wildland fire by ensuring that flammable materials are labeled,  
5 stored, and used appropriately; ensuring that contractors are properly trained in handling flammable  
6 hazardous materials; and requiring that spill clean-up kits be provided and kept on site during  
7 construction to clean up any spilled flammable liquids. **APM HAZ-6** would be implemented to reduce the  
8 potential for wildland fires caused by the proposed project by requiring workers to be instructed regarding  
9 the danger of wildland fire and carefully parking equipment in areas without dry, brushy vegetation. In  
10 addition, all work vehicles shall be equipped with a working fire extinguisher. Cigarettes and trash shall  
11 be disposed of in proper containers and taken off site at the end of the day. **MM GEN-1** would ensure  
12 that the applicant would implement all proposed APMs. With the implementation of **APM HAZ-1, APM**  
13 **HAZ-2, APM HAZ-5, and APM HAZ-6, and MM GEN-1,** impacts would be less than significant under  
14 this criterion.

15  
16 **Significance: Less than significant with mitigation.**

17  
18 *c. Would the project require the installation or maintenance of associated infrastructure (such as*  
19 *roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire*  
20 *risk or that may result in temporary or ongoing impacts to the environment?*

21  
22 As described above, construction of the proposed project would occur in and along existing Shasta  
23 County roads, roadways, and ROWs. The proposed project would be installed entirely within existing  
24 roadways and would not require new associated infrastructure to facilitate construction and operation.  
25 Once in operation, buried fiber optic utility lines would be in place, as well as seven new Digital Loop  
26 Carrier cabinets, each measuring 2 by 3 by 4 feet. These cabinets would be enclosed and, during project  
27 operation, would be accessed only to perform routine maintenance on the buried fiber optic cable lines.

28  
29 Ongoing maintenance would be required, with crews likely driving to the site to perform maintenance  
30 activities. Maintenance crews would access the project using the existing roadways in the vicinity;  
31 accordingly, the potential for wildfires associated with project operation would be similar to existing  
32 wildfire hazard conditions within the vicinity and would not exacerbate fire risk. Therefore,  
33 implementation of the proposed project would have a less than significant impact under this criterion.

34  
35 **Significance: Less than significant.**

36  
37 *d. Would the project expose people or structures to significant risks, including downslope or*  
38 *downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage*  
39 *changes?*

40  
41 Wildfires present direct hazards, such as threats to life, property, and infrastructure, as well as secondary  
42 hazards such as landslides. When heavy precipitation follows a wildfire event, steep-sloped areas that  
43 were formerly vegetated are prone to landslides (USGS 2018). However, as described in greater detail in  
44 Section 5.6, "Geology and Soils," while landslides are known to occur throughout Shasta County, the  
45 proposed project area is not identified as spanning terrain that is susceptible to landslides, and the Shasta  
46 County General Plan does not identify landslides as a significant geologic hazard within the proposed  
47 project area (Shasta County 2004). Furthermore, the relatively flat topography of the proposed project  
48 alignment and its distance from hills, mountains, or slopes make landslides unlikely. Landslides in Shasta  
49 County are most commonly associated with instability along volcanic rockslopes in the eastern and  
50 norther portions of the county and do not usually result from wildfires (Shasta County 2004). Because  
51 construction of the proposed project would not alter topography or create slopes that would increase

1 topographic susceptibility to wildfires or landslides, subsequently exposing people to such risks, there  
2 would be no impact under this criterion.

3

4 **Significance: No Impact.**

5

6 **Mitigation Measures**

7 See Section 5.3, “Air Quality” for **MM GEN-1**.

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