

Annex Q Placer County Resource Conservation District

Q.1 Introduction

This Annex details the hazard mitigation planning elements specific to Placer County Resource Conservation District (PCRCDD or District), a new participating jurisdiction to the 2016 Placer County Local Hazard Mitigation Plan (LHMP) Update. This Annex is not intended to be a standalone document, but appends to and supplements the information contained in the Base Plan document. As such, all sections of the Base Plan, including the planning process and other procedural requirements apply to and were met by the District. This Annex provides additional information specific to PCRCDD, with a focus on providing additional details on the risk assessment and mitigation strategy for this District.

Note: PCRCDD participated in the original 2005 Placer County LHMP. A copy of that document could not be located by PCRCDD, Placer County, or Cal OES. Additionally, staff turnover in the past 16 years has reduced institutional memory of that 2005 Plan. It can be assumed that none of PCRCDD's proposed mitigation actions were completed, PCRCDD's mitigation priorities at that time are unknown, and that the 2005 Plan was not incorporated into any PCRCDD planning mechanisms. Development in the District since 2005 was described by PCRCDD as minimal since the District owns no fixed assets, and a general description of more recent development in the District is included in Section Q.5.2 of this Annex.

Q.2 Planning Process

As described above, the District followed the planning process detailed in Chapter 3 of the Base Plan. In addition to providing representation on the Placer County Hazard Mitigation Planning Committee (HMPC), the District formulated their own internal planning team to support the broader planning process requirements. Internal planning participants, their positions, and how they participated in the planning process are shown in Table Q-1. Additional details on plan participation and District representatives are included in Appendix A.

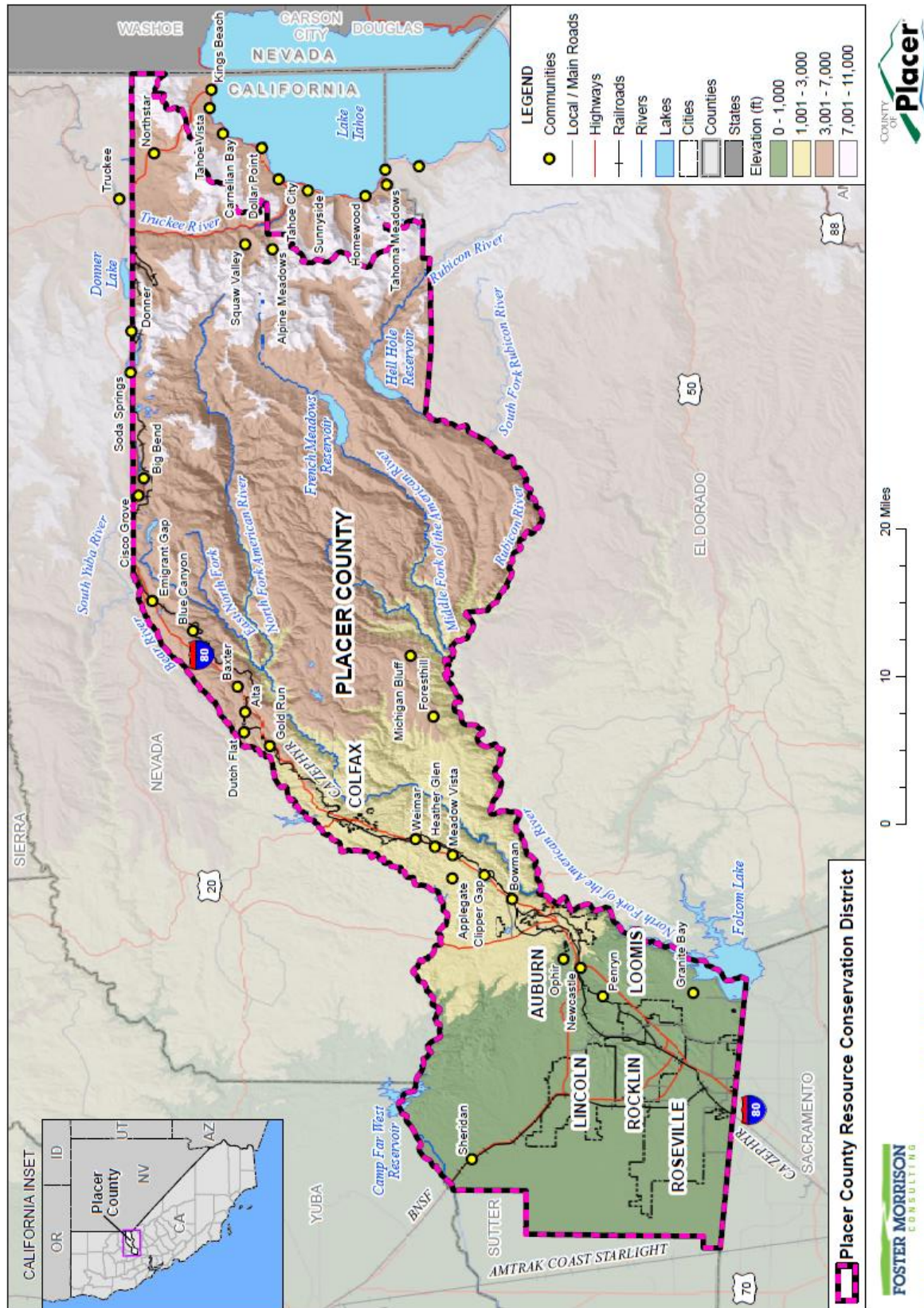
Table Q-1 PCRCDD – Planning Team

Name	Position/Title	How Participated
Sarah Jones	Executive Director	Participated in Placer County Hazard Mitigation Planning meetings, developed PCRCDD annex
George Alves	Program Administrator	Participated in Placer County Hazard Mitigation Planning meetings, provided input on PCRCDD annex

Q.3 District Profile

The District profile for the PCRCDD is detailed in the following sections. Figure Q-1 displays a map and the location of the District within Placer County.

Figure Q-1 PCRCD



Q.3.1. Overview and Background

The Placer County Resource Conservation District is an independent, self-governing body organized in 1946 and dedicated to the conservation of natural resources. The PRCD develops and enables programs in partnership with others that assist private landowners and public agencies to accomplish the goal of conserving natural resources. Our District develops, plans and implements programs, services and activities to effectively address current and emerging conservation and natural resource priorities in Placer County.

The RCD encompasses all of the County of Placer except for the Tahoe Basin and covers approximately 1,400 square miles of diverse stakeholders, habitat, and elevation, from the Sacramento Valley floor over the crest of the Sierra down the eastern slope to the Nevada State line.

District boundaries match Placer Counties other than the Tahoe Basin which falls under the Tahoe Resource Conservation District. The PRCD handles natural resource environmental work, so any environmental hazard that can be mitigated would fall under the District's purview – habitat restoration, forestry, wildfire, erosion control, invasive weeds, watershed health, stormwater etc.

The Placer RCD mission is dedicated to supporting wise natural resource management and conservation, providing education and technical assistance or direction to private landowners/operators, local and regional entities independently and in collaboration with other local, state, and federal agencies and organizations. The RCD implements plans, programs, holds land easements and endowments to conserve and enhance the natural resources of the District while inspiring and mobilizing public conservation awareness and involvement. Placer RCD shares many common natural resource management goals with Placer County and partners with them to achieve our mission. Our participation in the plan is imperative to achieve shared goals of natural resource conservation and preservation for lands in Placer County.

Q.4 Hazard Identification

PCRCD identified the hazards that affect the District and summarized their location, extent, frequency of occurrence, potential magnitude, and significance specific to District (see Table Q-2). It should be noted that the rankings here are the same as for Placer County as a whole, with the exception of seiche (which occurs outside the boundaries of the PCRCD).

Table Q-2 PCRC D—Hazard Identification Assessment

Hazard	Geographic Extent	Likelihood of Future Occurrences	Magnitude/Severity	Significance	Climate Change Influence
Agriculture Pests and Diseases	Significant	Highly Likely	Critical	Medium	Medium
Avalanche	Limited	Likely	Limited	Low	Medium
Climate Change	Extensive	Likely	Limited	High	–
Dam Failure	Significant	Occasional	Critical	Low	Medium
Drought & Water Shortage	Extensive	Likely	Critical	Medium	High
Earthquake	Significant	Occasional	Critical	Low	Low
Floods: 1%/0.2% annual chance	Limited	Occasional	Critical	Low	Medium
Floods: Localized Stormwater	Limited	Occasional/ Highly Likely	Limited	Low	Medium
Landslides, Mudslides, and Debris Flows	Limited	Occasional	Limited	Low	Medium
Levee Failure	Limited	Unlikely	Limited	Low	Medium
Pandemic	Extensive	Likely	Catastrophic	Low	Medium
Seiche	Limited	Unlikely	Limited	Low	Medium
Severe Weather: Extreme Heat	Extensive	Highly Likely	Limited	Low	High
Severe Weather: Freeze and Snow	Extensive	Highly Likely	Critical	Low	Medium
Severe Weather: Heavy Rains and Storms	Extensive	Occasional	Limited	Low	Medium
Severe Weather: High Winds and Tornadoes	Extensive	Highly Likely	Critical	Low	Low
Tree Mortality	Extensive	Likely	Limited	High	High
Wildfire	Extensive	Highly Likely	Critical	High	High
Geographic Extent Limited: Less than 10% of planning area Significant: 10-50% of planning area Extensive: 50-100% of planning area	Magnitude/Severity Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid				
Likelihood of Future Occurrences Highly Likely: Near 100% chance of occurrence in next year, or happens every year. Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less. Occasional: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years. Unlikely: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years.	Significance Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact				
	Climate Change Influence Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact				

Q.5 Hazard Profile and Vulnerability Assessment

The intent of this section is to profile the District’s hazards and assess the District’s vulnerability separate from that of the Placer County Planning Area as a whole, which has already been assessed in Section 4.3 Hazard Profiles and Vulnerability Assessment in the Base Plan. The hazard profiles in the Base Plan discuss overall impacts to the Placer County Planning Area and describes the hazard problem description, hazard location and extent, magnitude/severity, previous occurrences of hazard events and the likelihood of future occurrences. Hazard profile information specific to the District is included in this Annex. This vulnerability assessment analyzes the property and other assets at risk to hazards ranked of medium or high significance specific to the District. For more information about how hazards affect the County as a whole, see Chapter 4 Risk Assessment in the Base Plan.

Q.5.1. Hazard Profiles

Each hazard vulnerability assessment in Section Q.5.3, includes a hazard profile/problem description as to how each medium or high significant hazard (as shown in Table Q-2) affects the District and includes information on past hazard occurrences and the likelihood of future hazard occurrence. The intent of this section is to provide jurisdictional specific information on hazards and further describes how the hazards and risks differ across the Placer County Planning Area.

Q.5.2. Vulnerability Assessment and Assets at Risk

This section identifies the District’s total assets at risk, including values at risk, populations at risk, critical facilities and infrastructure, natural resources, and historic and cultural resources. Growth and development trends are also presented for the District. This data is not hazard specific, but is representative of total assets at risk within the District.

Assets at Risk and Critical Facilities

This section considers the PCRCDD’s assets at risk, with a focus on key District assets such as critical facilities, infrastructure, and other District assets and their values. With respect to District assets, the majority of these assets are considered critical facilities as defined for this Plan. Critical facilities are defined for this Plan as:

Any facility, including without limitation, a structure, infrastructure, property, equipment or service, that if adversely affected during a hazard event may result in severe consequences to public health and safety or interrupt essential services and operations for the community at any time before, during and after the hazard event.

This definition is further refined by separating out three classes of critical facilities:

Class 1 facilities include those facilities that contribute to command, control, communications and computer capabilities associated with managing an incident from initial response through recovery.

Class 2 facilities include those facilities that house Emergency Services capabilities.

Class 3 facilities are those facilities that enable key utilities and can be used as evacuation centers/shelters/mass prophylaxis sites, etc.

Additional information on the three classes of critical facilities is described further in Section 4.3.1 of the Base Plan.

The PCRCD owns no facilities or properties.

Populations Served

Also potentially at risk should the District be affected by natural hazard events are the populations served by the District. PCRCD provides services to all landowners within the District boundary and populations served align with that of Placer County.

Natural Resources

PCRCD has a variety of natural resources of value to the District. These natural resources parallel that of Placer County as a whole. Information can be found in Section 4.3.1 of the Base Plan.

Historic and Cultural Resources

PCRCD has a variety of historic and cultural resources of value to the District. These historic and cultural resources parallel that of Placer County as a whole. Information can be found in Section 4.3.1 of the Base Plan.

Growth and Development Trends

General growth in the District parallels that of the Placer County Planning Area as a whole. Information can be found in Section 4.3.1 of the Base Plan.

Future Development

The District has no control over future development in areas the District services. Future development in these areas parallels that of the Placer County Planning Area. More general information on growth and development in Placer County as a whole can be found in “Growth and Development Trends” in Section 4.3.1 Placer County Vulnerability and Assets at Risk of the Base Plan.

Q.5.3. Vulnerability to Specific Hazards

This section provides the vulnerability assessment, including any quantifiable loss estimates, for those hazards identified above in Table Q-2 as high or medium significance hazards. Impacts of past events and vulnerability of the District to specific hazards are further discussed below (see Section 4.1 Hazard Identification in the Base Plan for more detailed information about these hazards and their impacts on the Placer County Planning Area). Methodologies for evaluating vulnerabilities and calculating loss estimates are the same as those described in Section 4.3 of the Base Plan.

An estimate of the vulnerability of the District to each identified priority hazard, in addition to the estimate of likelihood of future occurrence, is provided in each of the hazard-specific sections that follow. Vulnerability is measured in general, qualitative terms and is a summary of the potential impact based on past occurrences, spatial extent, and damage and casualty potential. It is categorized into the following classifications:

- **Extremely Low**—The occurrence and potential cost of damage to life and property is very minimal to nonexistent.
- **Low**—Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal.
- **Medium**—Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster.
- **High**—Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past.
- **Extremely High**—Very widespread with catastrophic impact.

Depending on the hazard and availability of data for analysis, this hazard specific vulnerability assessment also includes information on values at risk, critical facilities and infrastructure, populations at risk, and future development.

Agriculture Hazards

Likelihood of Future Occurrence—Highly Likely

Vulnerability—Medium

Hazard Profile and Problem Description

Before its rapid population growth in the 1970s and 1980s, Placer County was known as an agricultural and timber-producing county. Agriculture and timber production are still important sectors of the County's economy; however, manufacturing, recreation, and service industries have increased in economic importance. Agricultural lands continue to be at risk to development based on population growth projections for the County. In western Placer County, land traditionally used for agricultural purposes lies near existing cities and is expected to accommodate much of this population increase. While its agricultural land is threatened, Placer County retains a significant amount of agricultural land where the economy is intact and where farmers are a real presence in the community.

According to the HMPC, agricultural losses occur on an annual basis and are usually associated with severe weather events, including heavy rains, floods, freeze, heat, and drought. Wildfire and other hazards can also affect agricultural lands. The 2018 State of California Multi-Hazard Mitigation Plan attributes most of the agricultural disasters statewide to drought, freeze, and insect infestations. Other agricultural hazards include fires, crop and livestock disease, insects, and noxious weeds.

In addition to severe weather, invasive species can affect the agricultural industry in the County. Invasive species are organisms that are introduced into an area beyond their natural range and become a pest in the new environment. This hazard addresses the issues related to invasive pests including that pose a significant

threat to the agricultural industry and are therefore a concern in the Placer County Planning Area. This hazard does not address pests and plants that cause impacts to human health, as those issues are addressed in other planning mechanisms in the County.

Location and Extent

There is no scale that measures agricultural hazards. Agriculture in the County is at risk to many hazards: insects, weeds, severe weather, as well as downturns in commodity prices. Each of these has a different duration and speed of onset. Some, such as freeze, can have a short onset and a short duration. Drought can have a long onset and long duration. Insects and weeds can have short or long onset, and short or long durations. All agricultural losses can have a significant impact on affected communities.

Past Occurrences

There have been no state or federal FEMA disasters in the County related to agricultural hazards. There have been multiple USDA Secretarial Disaster Declarations, as shown on Table 4-6 of the Base Plan. Past occurrences regarding natural resources align with those of Placer County.

Vulnerability to and Impacts from Agricultural Pests and Diseases

According to the USDA, every year natural disasters, such as droughts, extreme heat and cold, floods, fires, hail, landslides, and tornadoes, challenge agricultural production. Because agriculture relies on the weather, climate, and water availability to thrive, it is easily impacted by natural events and disasters. Agricultural impacts from natural events and disasters most commonly include contamination of water bodies, loss of harvest or livestock, increased susceptibility to disease, and destruction of irrigation systems and other agricultural infrastructure. These impacts can have long lasting effects on agricultural production including crops, forest growth, and arable lands, which require time to mature. More specific impacts by hazard were listed in Section 4.3.6 of the Base Plan.

In addition to threats to agriculture from weather and other natural hazard events, agriculture in the County is at risk from insects, pests, and noxious weeds. Establishment of an invasive species would be detrimental to the agricultural industry of Placer County because of product losses, stringent quarantine regulations, loss of exporting opportunities and increased treatment costs. The introduction of exotic plants influences wildlife by displacing forage species, modifying habitat structure—such as changing grassland to a forb-dominated community—or changing species interactions within the ecosystem.

In addition, invasive weeds can increase fire risk in the County.

Assets at Risk

The PCRCDD owns no facilities or properties that could significantly be impacted by notable hazard events. Hazards would not significantly impact the District's ability provide service unless it was so overwhelmed with landowner service requests that additional staff would need to be hired.

Climate Change

Likelihood of Future Occurrence–Likely

Vulnerability–Medium

Hazard Profile and Problem Description

Climate change adaptation is a key priority of the State of California. The 2018 State of California Multi-Hazard Mitigation Plan stated that climate change is already affecting California. Sea levels have risen by as much as seven inches along the California coast over the last century, increasing erosion and pressure on the state’s infrastructure, water supplies, and natural resources. The State has also seen increased average temperatures, more extreme hot days, fewer cold nights, a lengthening of the growing season, shifts in the water cycle with less winter precipitation falling as snow, and earlier runoff of both snowmelt and rainwater in the year. In addition to changes in average temperatures, sea level, and precipitation patterns, the intensity of extreme weather events is also changing.

Location and Extent

Climate change is a global phenomenon. It is expected to affect the whole of the District, Placer County, and State of California. There is no scale to measure the extent of climate change. Climate change exacerbates other hazards, such as drought, extreme heat, flooding, wildfire, and others. The speed of onset of climate change is very slow. The duration of climate change is not yet known, but is feared to be tens to hundreds of years.

Past Occurrences

Climate change has never been directly linked to any declared disasters. While the District noted that climate change is of concern, no specific impacts of climate change could be recalled. The District and HMPC members did, however, note that in Placer County, the strength of storms does seem to be increasing and the temperatures seem to be getting hotter. Hotter temperatures, combined with recent drought conditions, exacerbates the potential for damaging wildfires.

Vulnerability to and Impacts from Climate Change

The California Adaptation Planning Guide (APG) prepared by California OES and CNRA was developed to provide guidance and support for local governments and regional collaboratives to address the unavoidable consequences of climate change. California’s APG: Understanding Regional Characteristics has divided California into 11 different regions based on political boundaries, projected climate impacts, existing environmental setting, socioeconomic factors and regional designations. Placer County falls within the North Sierra Region characterized as a sparsely settled mountainous region where the region’s economy is primarily tourism-based. The region is rich in natural resources, biodiversity, and is the source for the majority of water used by the state. This information can be used to guide climate adaptation planning in the District and Placer County Planning Area.

The California APG: Understanding Regional Characteristics identified the following impacts specific to the North Sierra region in which the Placer County Planning Area is part of:

- Temperature increases
- Decreased precipitation
- Reduced snowpack
- Reduced tourism
- Ecosystem change
- Sensitive species stress
- Increased soil erosion
- Increased wildfire

Assets at Risk

The PCRCD owns no facilities or properties that could significantly be impacted by notable hazard events. Hazards would not significantly impact the District’s ability provide service unless it was so overwhelmed with landowner service requests that additional staff would need to be hired.

Drought & Water Shortage

Likelihood of Future Occurrence–Likely
Vulnerability–High

Hazard Profile and Problem Description

Drought is a complex issue involving many factors—it occurs when a normal amount of precipitation and snow is not available to satisfy an area’s usual water-consuming activities. Drought can often be defined regionally based on its effects. Drought is different than many of the other natural hazards in that it is not a distinct event and usually has a slow onset. Drought can severely impact a region both physically and economically. Drought affects different sectors in different ways and with varying intensities. Adequate water is the most critical issue and is critical for agriculture, manufacturing, tourism, recreation, and commercial and domestic use. As the population in the area continues to grow, so will the demand for water.

Location and Extent

Drought and water shortage are regional phenomenon. The whole of the County, as well as the whole of the District, is at risk. The US Drought Monitor categorizes drought conditions with the following scale:

- None
- D0 – Abnormally dry
- D1 – Moderate Drought
- D2 – Severe Drought
- D3 – Extreme drought
- D4 – Exceptional drought

Drought has a slow speed of onset and a variable duration. Drought can last for a short period of time, which does not usually affect water shortages and for longer periods. Should a drought last for a long period of time, water shortage becomes a larger issue. Current drought conditions in the District and the County are shown in Section 4.3.10 of the Base Plan.

Past Occurrences

There has been one state and one federal disaster declaration due to drought since 1950. This can be seen in Table Q-3.

Table Q-3 Placer County – State and Federal Disaster Declarations Summary 1950-2020

Disaster Type	State Declarations		Federal Declarations	
	Count	Years	Count	Years
Drought	1	2014	1	1977

Source: Cal OES, FEMA

Since drought is a regional phenomenon, past occurrences of drought for the District are the same as those for the County and includes 5 multi-year droughts over an 85-year period. Details on past drought occurrences can be found in Section 4.3.10 of the Base Plan.

Placer RCD provides landowner assistance to landowners affected by drought, the impact is therefore an increase in requests for chipping services, technical assistance regarding irrigation, water and crop management and tree mortality

Vulnerability to and Impacts from Drought and Water Shortage

Based on historical information, the occurrence of drought in California, including the District, is cyclical, driven by weather patterns. Drought has occurred in the past and will occur in the future. Periods of actual drought with adverse impacts can vary in duration, and the period between droughts can be extended. Although an area may be under an extended dry period, determining when it becomes a drought is based on impacts to individual water users. Drought impacts are wide-reaching and may be economic, environmental, and/or societal. Tracking drought impacts can be difficult.

The most significant qualitative impacts associated with drought in the Placer County Planning Area are those related to water intensive activities such as agriculture, wildfire protection, municipal usage, commerce, tourism, recreation, and wildlife preservation. Mandatory conservation measures are typically implemented during extended droughts. Drought conditions can also cause soil to compact and not absorb water well, potentially making an area more susceptible to flooding. With a reduction in water, water supply issues based on water rights becomes more evident. Climate change may create additional impacts to drought and water shortage in the County and the District.

During periods of drought, vegetation can dry out which increases fire risk. Drought that occurs during periods of extreme heat and high winds can cause Public Safety Power Shutoff (PSPS) events to be declared in the County. More information on power shortage and failure can be found in the Severe Weather: Extreme Heat Section below, as well as in Section 4.3.2 of the Base Plan.

This may affect service requests for agriculture assistance and tree mortality (increase wildfire risk) in the District.

Assets at Risk

The PRCD owns no facilities or properties that could significantly be impacted by notable hazard events. Hazards would not significantly impact the District's ability provide service unless it was so overwhelmed with landowner service requests that additional staff would need to be hired.

Tree Mortality

Likelihood of Future Occurrence–Likely

Vulnerability–High

Hazard Profile and Problem Description

One of the many vulnerabilities of drought in Placer County is the increased risk of widespread tree mortality events that pose hazards to people, homes, and community infrastructure, create a regional economic burden to mitigate, and contribute to future fuel loads in forests surrounding communities. During extended drought, tree mortality is driven by a build-up in endemic bark beetle populations and exacerbated by latent populations of a suite of native insects and disease. Non-native forest pests (insects and/or pathogens) can also contribute to tree mortality events.

Location and Extent

Onset of tree mortality events can be relatively fast; however conditions – such as high stand densities – that lead to tree mortality accumulate slowly over time. Duration of tree mortality is lengthy, as once the tree dies, it remains in place until removed by human activity, wildfire, or breakdown of the wood by nature. Many areas in Placer County have seen increases in tree mortality. The County has mapped these areas, and that map was shown in Section 4.3.18 of the Base Plan. Using a color legend, the map provided by CAL FIRE shows a scale of:

- Deep burgundy depicting areas with more than 40 dead trees per acre
- Red depicting 15 - 40 dead trees per acre
- Orange depicting 5 -15 dead trees per acre
- Yellow depicting 5 or less dead trees per acre

In the past decade, mortality has increased in the eastern portion of Placer County. During the 2012-2018 drought, the state of California Tree Mortality Task force designated multiple Tier 1 and Tier 2 High Hazard Zones where tree mortality posed an elevated risk to human health, properties, and resource values. A number of Placer County areas were designated during this event and the majority of Placer County watersheds were designated as Tier 2 high hazard zones because of the significant levels of tree mortality, along with numerous Tier 1 High hazard “hot spots”. A map of these areas was shown in in Section 4.3.18 of the Base Plan.

Past Occurrences

There have been no state or federal disasters in the County related directly to tree mortality, though it has most likely contributed to the intensity of past wildfires in the County. Those events are shown in the Past Occurrences section of Wildfire below. In 2015, then-Governor Edmund G. Brown Jr. proclaimed a state

of emergency due to the extreme hazard of the dead and dying trees. Following the proclamation, 10 counties were determined to be most affected, which included Placer County. Placer County proclaimed a local emergency due to tree mortality conditions on Dec. 8, 2015.

Tree mortality issues align with those of Placer County and result in an increased need for wildfire fuel reduction and mitigation. The Placer RCD offers technical assistance to landowners who experience tree mortality and help landowners apply for cost-share funds to remove dead and dying trees on their property through our partnership with the Natural Resource Conservation Service.

Vulnerability to and Impacts from Tree Mortality

Placer County is unique in that many residential and business areas of the community are in the wildland urban interface/intermix with the forest. Trees in these interface/intermix areas are particularly vulnerable to insect and/or drought driven mortality because of the additional stressors that urban environments impose on trees (i.e. soil compaction, altered hydrology, physical damage, heat islands etc.). This exacerbates the occurrence of tree mortality within the populated settings of the County.

Dead trees are a hazard to the general public and forest visitors, but the risk of injury, death, property damage or infrastructure damages varies depending how the hazard interacts with potential targets. Dead trees within the wildland urban intermix or wildland urban interface or urban areas therefore pose a greater risk to due to their proximity to residents, businesses, and road, power, and communication infrastructure.

Dead trees may fall or deteriorate in their entirety or in part – either mechanism has the potential for injury, death, or inflicting severe damage to targets. As the time since tree mortality increases, so does the deterioration of wood and the potential for tree failure.

Requests for chipping services increased by 80% over the last several years resulting in longer wait times for service.

Assets at Risk

The PRCD owns no facilities or properties that could significantly be impacted by notable hazard events. Hazards would not significantly impact the District’s ability provide service unless it was so overwhelmed with landowner service requests that additional staff would need to be hired.

Wildfire

Likelihood of Future Occurrence–Highly Likely

Vulnerability–High

Hazard Profile and Problem Description

Wildland fire and the risk of a conflagration is an ongoing concern for the PCRCD. Throughout California, communities are increasingly concerned about wildfire safety as increased development in the foothills and mountain areas and subsequent fire control practices have affected the natural cycle of the ecosystem. Wildland fires affect grass, forest, and brushlands, as well as any structures located within them. Where

there is human access to wildland areas the risk of fire increases due to a greater chance for human carelessness and historical fire management practices. Historically, the fire season extends from early spring through late fall of each year during the hotter, dryer months; however, in recent years, the risk of wildfire has become a year around concern. Fire conditions arise from a combination of high temperatures, low moisture content in the air and fuel, accumulation of vegetation, and high winds. While wildfire risk has predominantly been associated with more remote forested areas and wildland urban interface (WUI) areas, significant wildfires can also occur in more populated, urban areas.

Extreme Heat and Power Shortage/Power Failure

The US power grid crisscrosses the country, bringing electricity to homes, offices, factories, warehouses, farms, traffic lights and even campgrounds. According to statistics gathered by the Department of Energy, major blackouts are on the upswing. Incredibly, over the past two decades, blackouts impacting at least 50,000 customers have increased 124 percent. The electric power industry does not have a universal agreement for classifying disruptions. Nevertheless, it is important to recognize that different types of outages are possible so that plans may be made to handle them effectively. In addition to blackouts, brownouts can occur. A brownout is an intentional or unintentional drop in voltage in an electrical power supply system. Intentional brownouts are used for load reduction in an emergency. Electric power disruptions can be generally grouped into two categories: intentional and unintentional. More information on types of power disruptions can be found in Section 4.3.2 of the Base Plan.

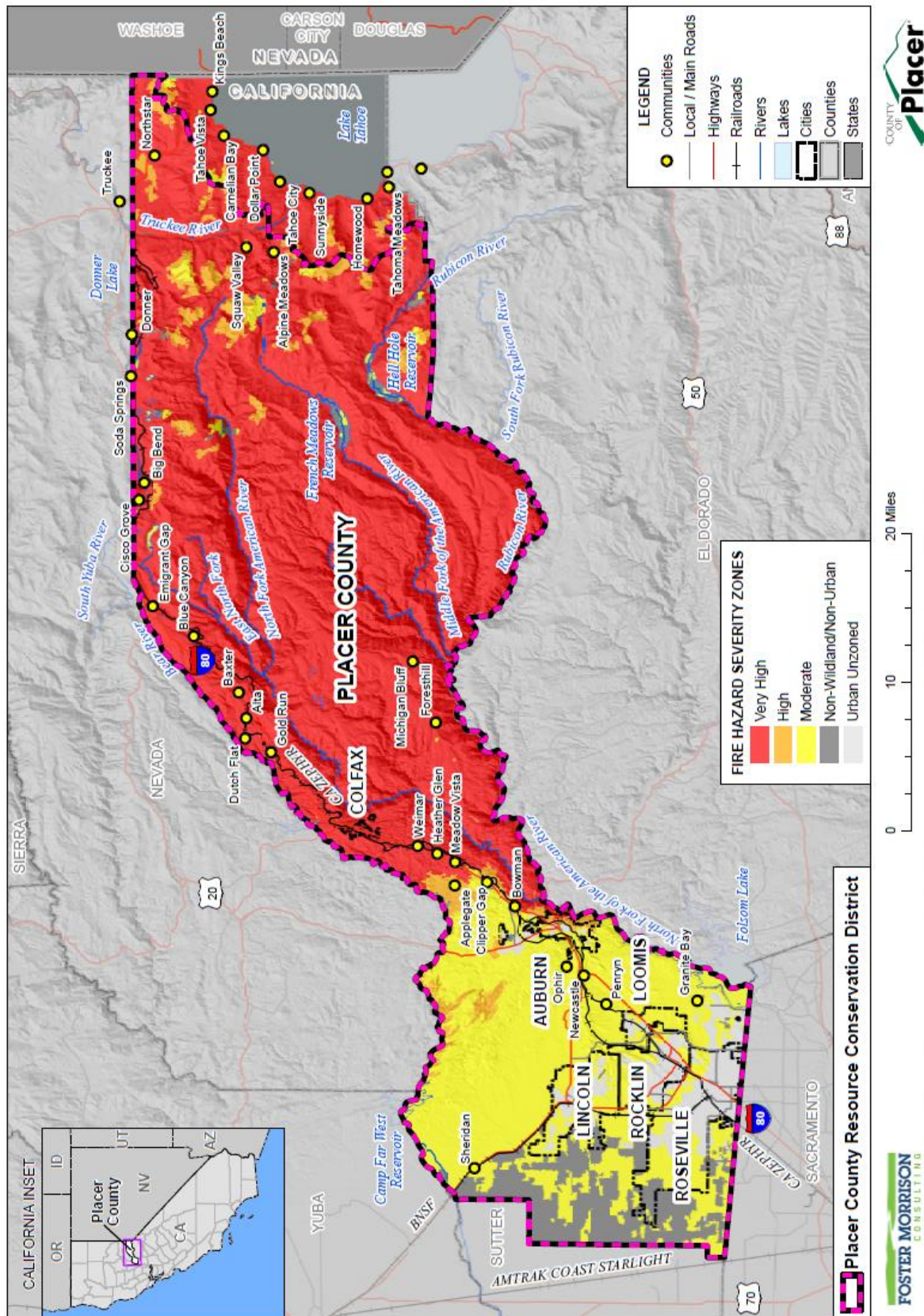
Public Safety Power Shutoff (PSPS)

A new intentional disruption type of power shortage/failure event has recently occurred in California. In recent years, several wildfires have started as a result of downed power lines or electrical equipment. This was the case for the Camp Fire in 2018. As a result, California's three largest energy companies (including PG&E), at the direction of the California Public Utilities Commission (CPUC), are coordinating to prepare all Californians for the threat of wildfires and power outages during times of extreme weather. To help protect customers and communities during extreme weather events, including periods of high winds, high temperatures, and low humidity, electric power may be shut off for public safety in an effort to prevent a wildfire. This is called a PSPS. More information on PSPS criteria can be found in Section 4.3.2 of the Base Plan.

Location and Extent

Wildfire can affect all areas of the District. CAL FIRE has estimated that the risk varies across the District and has created maps showing risk variance. Following the methodology described in Section 4.3.19 of the Base Plan, wildfire maps for the PCRCD were created. Figure Q-2 shows the CAL FIRE FHSZ in the District. As shown on the maps, FHSZs within the District range from Urban Unzoned to Very High.

Figure Q-2 PCRCO – Fire Hazard Severity Zones



Wildfires tend to be measured in structure damages, injuries, and loss of life as well as on acres burned. Fires can have a quick speed of onset, especially during periods of drought or during hot dry summer months. Fires can burn for a short period of time, or may have durations lasting for a week or more.

Past Occurrences

There has been five state and six federal disaster declarations for Placer County from fire. These can be seen in Table Q-4.

Table Q-4 Placer County – State and Federal Disaster Declarations Summary 1950-2020

Disaster Type	State Declarations		Federal Declarations	
	Count	Years	Count	Years
Fire	5	1961, 1965, 1973, 1987, 2010	6	2002, 2004, 2008, 2009, 2014 (twice)

Source: Cal OES, FEMA

No direct impact on RCD from wildfires, but wildfires may affect landowners negatively, this may result in an increase of technical assistance provided by the District.

Vulnerability to and Impacts from Wildfire

Risk and vulnerability to the Placer County Planning Area and the District from wildfire is of significant concern, with some areas of the Planning Area being at greater risk than others as described further in this section. High fuel loads in the Planning Area, combined with a large built environment and population, create the potential for both natural and human-caused fires that can result in loss of life and property. These factors, combined with natural weather conditions common to the area, including periods of drought, high temperatures, low relative humidity, and periodic winds, can result in frequent and potentially catastrophic fires. During the nearly year around fire season, the dry vegetation and hot and sometimes windy weather results in an increase in the number of ignitions. Any fire, once ignited, has the potential to quickly become a large, out-of-control fire. As development continues throughout the County and the District, especially in these interface areas, the risk and vulnerability to wildfires will likely increase.

Potential impacts from wildfire include loss of life and injuries; damage to structures and other improvements, natural and cultural resources, croplands, and loss of recreational opportunities. Wildfires can cause short-term and long-term disruption to the District. Fires can have devastating effects on watersheds through loss of vegetation and soil erosion, which may impact the District by changing runoff patterns, increasing sedimentation, reducing natural and reservoir water storage capacity, and degrading water quality. Fires can also affect air quality in the District; smoke and air pollution from wildfires can be a severe health hazard.

Although the physical damages and casualties arising from large fires may be severe, it is important to recognize that they also cause significant economic impacts by resulting in a loss of function of buildings and infrastructure. Economic impacts of loss of transportation and utility services may include traffic delays/detours from road and bridge closures and loss of electric power, potable water, and wastewater services. Schools and businesses can be forced to close for extended periods of time. Recently, the threat

of wildfire, combined with the potential for high winds, heat, and low humidity, has caused PG&E to initiate PSPSs which can also significantly impact a community through loss of services, business closures, and other impacts associated with loss of power for an extended period. More information on power shortage and failure can be found in the Severe Weather: Extreme Heat Section above, as well as in Section 4.3.2 of the Base Plan. In addition, catastrophic wildfire can create favorable conditions for other hazards such as flooding, landslides, and erosion during the rainy season.

Assets at Risk

The PCRCO owns no facilities or properties that could significantly be impacted by notable hazard events. Hazards would not significantly impact the District’s ability provide service unless it was so overwhelmed with landowner service requests that additional staff would need to be hired.

Q.6 Capability Assessment

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation education, outreach, and partnerships, and other mitigation efforts.

Q.6.1. Regulatory Mitigation Capabilities

Table Q-5 lists regulatory mitigation capabilities, including planning and land management tools, typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are in place in the PCRCO.

Table Q-5 PCRCO Regulatory Mitigation Capabilities

Plans	Y/N Year	Does the plan/program address hazards? Does the plan identify projects to include in the mitigation strategy? Can the plan be used to implement mitigation actions?
Comprehensive/Master Plan/General Plan	N/A	
Capital Improvements Plan	N/A	
Economic Development Plan	N/A	
Local Emergency Operations Plan	N/A	
Continuity of Operations Plan	N/A	
Transportation Plan	N/A	
Stormwater Management Plan/Program	N/A	
Engineering Studies for Streams	N/A	
Community Wildfire Protection Plan	Y	2021 Placer County (Western Slope) CWPP
Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)	N/A	

Building Code, Permitting, and Inspections		Y/N	Are codes adequately enforced?
Building Code	N/A	Version/Year:	
Building Code Effectiveness Grading Schedule (BCEGS) Score	N/A	Score:	
Fire department ISO rating:	N/A	Rating:	
Site plan review requirements	N/A		
Is the ordinance an effective measure for reducing hazard impacts?			
Land Use Planning and Ordinances	Y/N	Is the ordinance adequately administered and enforced?	
Zoning ordinance	N/A		
Subdivision ordinance	N/A		
Floodplain ordinance	N/A		
Natural hazard specific ordinance (stormwater, steep slope, wildfire)	N/A		
Flood insurance rate maps	N/A		
Elevation Certificates	N/A		
Acquisition of land for open space and public recreation uses	N/A		
Erosion or sediment control program	N/A		
Other			
How can these capabilities be expanded and improved to reduce risk?			
<p>The 2021 Placer County (Western Slope) Community Wildfire Protection Plan is the result of a community-wide planning effort. These efforts include input from five individual Fire Safe Council, two addition Fire Protection District, and bordering County, State, and Federal landowners. Field data gathering, compilation of existing documents, geographic information, and analysis provide recommendations designed to reduce the threat of wildfire-related damages to values at risk. Each assessment portion of the CWPP has identified hazards and values at risk associated with wildland fire in proximity to the Wildland-Urban Interface (WUI) areas. Each section of the CWPP has identified projects that address fuels mitigation, public education, and safety. Wildfire related mitigation efforts will be sought to be expanded through this CWPP.</p>			

Source: PCRCDD

Placer County Resource Conservation District Long Range Strategic Plan (2016)

Placer County Resource Conservation District (RCD) is a public body or unit of government (Special District) of the State of California organized under Public Resources Code Division 9. The Placer County RCD is self-governed by a seven member Board of Directors who are appointed by the Placer County Board of Supervisors. The Directors guide programs and set policies consistent with local conservation goals and priorities. The day to day operations are carried out under the leadership and supervision of the Executive Director.

The purpose of the organization is to make available technical, financial and educational resources, whatever their source, and focus or coordinate them so that they meet the needs of the local land manager with conservation of soil, water and related natural resources.

In order for the organization to be effective, internally and externally, a management scoping system will be utilized to filter, develop, plan, budget, administer, monitor, evaluate and communicate the work of Placer County RCD. This plan lays out goals for that purpose.

Q.6.2. Administrative/Technical Mitigation Capabilities

Table Q-6 identifies the District department(s) responsible for activities related to mitigation and loss prevention in PCRCD.

Table Q-6 PCRCD’s Administrative and Technical Mitigation Capabilities

Administration	Y/N	Describe capability Is coordination effective?
Planning Commission	N/A	
Mitigation Planning Committee	N/A	
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	N/A	
Mutual aid agreements	N/A	
Other		
		Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Staff	Y/N FT/PT	
Chief Building Official	N/A	
Floodplain Administrator	N/A	
Emergency Manager	N/A	
Community Planner	N/A	
Civil Engineer	N/A	
GIS Coordinator	N/A	
Other	Y	Executive Director and Program Administrator are trained in mitigation.
Technical		
Warning systems/services (Reverse 911, outdoor warning signals)	N/A	
Hazard data and information	N/A	
Grant writing	Y	PRCD does not enforce regulations. We have a part-time grant writer to acquire funding for District activities. The coordination with between staff and partners is effective- however this position would be more effective as a full-time position.
Hazus analysis	N/A	
Other		
How can these capabilities be expanded and improved to reduce risk?		
By hiring a full-time grant writer PCRCD would be more effective at acquiring funding to address natural resource hazards in Placer County.		

Source: PCRCDD

Q.6.3. Fiscal Mitigation Capabilities

Table Q-7 identifies financial tools or resources that the District could potentially use to help fund mitigation activities.

Table Q-7 PCRCDD's Fiscal Mitigation Capabilities

Funding Resource	Access/ Eligibility (Y/N)	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Capital improvements project funding		
Authority to levy taxes for specific purposes		
Fees for water, sewer, gas, or electric services		
Impact fees for new development		
Storm water utility fee		
Incur debt through general obligation bonds and/or special tax bonds		
Incur debt through private activities		
Community Development Block Grant		
Other federal funding programs	Y	Federal funding is utilized for PRCD activities related to forestry and agricultural landowner technical assistance and watershed health projects.
State funding programs	Y	State funding is utilized for PRCD activities related to fuel reduction, tree mortality, landowner technical assistance and conservation education and outreach
Other		
How can these capabilities be expanded and improved to reduce risk?		
Placer RCD primarily depends on and grant funds and contractual agreements to fund District operations. In FY 2019-20 out of a \$5.5M annual budget our allocation of tax revenue from Placer County, was approximately \$400K which is considered our base funding and only reliable and stable source of funding. The remaining funds were all acquired mostly through grant funding. If grant funding or other sources of state and federal funding are not available, it greatly impacts our ability to fund operational costs, provide services and complete projects. Additional funding from Cal OES, DWR, FEMA or other entities will allow the District to complete additional mitigation related projects.		

Source: PCRCDD

Q.6.4. Mitigation Education, Outreach, and Partnerships

Table Q-8 identifies education and outreach programs and methods already in place that could be/or are used to implement mitigation activities and communicate hazard-related information.

Table Q-8 PCRCDD's Mitigation Education, Outreach, and Partnerships

Program/Organization	Yes/No	Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Y	Placer RCD is a core member of the Placer County Firesafe Alliance who works closely with FireWise Communities and Fire Safe Councils to disseminate information regarding emergency preparedness and education and outreach regarding fire prevention and safety measures.
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Y	Placer RCD has a Firewise Trailer Program that assists community organizations in neighborhood clean-up days by loaning out tools and equipment, and providing educational resources regarding defensible space and home hardening.
Natural disaster or safety related school programs	N	
StormReady certification	N	
Firewise Communities certification	N	
Public-private partnership initiatives addressing disaster-related issues	N	
Other		
How can these capabilities be expanded and improved to reduce risk?		
Additional funding would allow these programs to expand by providing more outreach materials and staff time to organize events and work with the public.		

Source: PCRCDD

Q.6.5. Other Mitigation Efforts

The District has many other completed or ongoing mitigation efforts that include the following:

CALFED North Fork American River Sediment Dynamics Study

A consortium of stakeholders including Placer County RCD, the Placer County Water Agency, the US Forest Service, Sierra Pacific Industries, CA State University-Sacramento, and the North American River Watershed Coordinator, with support from Sierra College, have stewarded a study, funded by CALFED through the CA Department of Water Resources (DWR) which is due to be completed by mid-2007. One outcome of this effort is expected to be Best Management Practices for erosion reduction and reduced water quality degradation.

CALFED Working Landscapes Grant

This grant funds the development of a GIS-based American Basin Working Landscape Strategy, implementation of three specific riparian and wetland restoration projects, and preparation of the applicants to purchase up to four wildlife friendly agricultural easements.

Agricultural and Natural Resource Land Inventory

The Agricultural and Natural Resource land Inventory was developed using a number of sources. The basis for development was the parcels obtained from the County of Placer (2019). The purpose for the use of the parcels as a base was to provide a consistent and updatable GIS based record that also provide important base information such as owners and addresses. The final inventory contains only those lands identified as natural resources or agricultural lands.

Prescribed Burning on Private Lands (white paper draft)

Development of a programmatic framework that increases the use of prescribed fire on private lands through interagency collaboration. This document is being created in tandem with case study burns that will help identify realistic solutions to common roadblocks, allowing local agencies and organizations to appropriately serve landowners in low-risk/low-complexity prescribed burns. Prescribed burning on private lands will protect life, property, and ecological resources and prevent large-scale greenhouse gas emissions from catastrophic wildfire. Current State and Local programs are neither designed for, nor facilitate, burning on small private parcels of land. Approximately 40% of California’s forestlands are privately owned, creating an exciting opportunity to improve forest health engaging with and empowering our community to become more resilient to wildfire.

Other Projects

Other projects for the District are shown on Table Q-9.

Table Q-9 PCRC D Projects

Program Area	Name	Funder	Hazard Area(s)	Description
Watershed / Stream Restoration	Red Sesbania Removal	Sacramento Area Flood Control District	Climate Change, Floods: Localized stormwater	Removal of the invasive plant Red Sesbania in Dry Creek watershed
	Atwood Conservation Easement	Auburn Recreation District		11 acre conservation easement - conduct biological surveys and make resource management recommendations
	Storm Water Management	Placer County	Climate Change, Floods: Localized stormwater	Stormwater management services provided to Placer County under a cooperative agreement.
	Dry Creek Restoration (SLEWS project)	United States Fish and Wildlife Service	Climate Change, Floods: Localized stormwater	Implementation of watershed health projects in the Dry Creek.
Forestry / Fuels Reduction	Forestland Stewardship Newsletter & Forestry Committee	CALFIRE / United States Forest Service	Climate Change, Wildfire, Tree Mortality	Develop and distribute the Forestland Steward Newsletter tri-annually.

Program Area	Name	Funder	Hazard Area(s)	Description
	Placer County Chipper Program	CALFIRE	Climate Change, Wildfire, Tree Mortality	Low cost chipping service to resident of Placer County.
	Auburn Shaded Fuelbreak	CALFIRE	Climate Change, Wildfire, Tree Mortality	300- acre shaded fuel break in the Auburn State Recreation Area.
	Placer Co. Coordinated Fuelbreak - Phase 1	CALFIRE	Climate Change, Wildfire, Tree Mortality	350 acre shaded fuelbreak in the Applegate community
	Sacramento HQ Agreement	CALFIRE	Climate Change, Wildfire, Tree Mortality	Fuel reduction work prioritized by CALFIRE throughout Placer County
	Prescribed Burning on Private Lands Pilot Program	CALFIRE	Climate Change, Wildfire, Tree Mortality	Develop a white paper outlining a framework for implementation of prescribed burning on private lands
	NRCS Forestry 2 Agreement	US Natural Resource Conservation Service (NRCS)	Climate Change, Wildfire, Tree Mortality	NRCS Cooperative Agreement enabling RCD contractors / staff to assist NRCS with data collection, outreach, and technical assistance for private landowners with forest health concerns and cost-share programs.
	Regional Conservation Partnership Program- Tree Mortality Program	CARCD / NRCS	Climate Change, Wildfire, Tree Mortality	Program specific to the Sierra Nevada Region to help private landowners remove dead and dying trees through technical assistance and providing cost-share funds.
Soil / Ag	Soil Health Tech. Asst.	NRCS	Climate Change, Agricultural Pests and Diseases, Drought and Water Shortage	NRCS Cooperative Agreement enabling RCD contractors / staff to assist NRCS with data collection, outreach, and technical assistance for private landowners with soil health concerns and cost-share programs (rangeland, pasture, crops). Submitted a letter requesting an extension in early May.
	Urban Agriculture Technical Assistance	National Association of Conservation Districts	Climate Change, Agricultural Pest and Diseases, Drought and Water Shortage	Provide landowner technical assistance to urban agricultural producers with an emphasis on underserved communities
	Carbon Farm Planning	Carbon Cycle Institute	Climate Change, Agricultural Pest and Diseases, Drought and Water Shortage	Provide Carbon Farm planning to increase carbon sequestration program for farmers and ranchers in Placer County

Program Area	Name	Funder	Hazard Area(s)	Description
Education / Outreach	Ag Day	District-led	Climate Change, Agricultural Pest and Diseases, Drought and Water Shortage	Annual Agricultural educational field day for Placer County students (3rd-5th grade).
	Ag Tour (virtual)	Placer County	Climate Change, Agricultural Pest and Diseases, Drought and Water Shortage	Annual event for county officials and the public to gain exposure to ag related issues affecting local producers.
	FSTEP (Fireline Safety Training and Education Program)	District-led (fee for service program)	Climate Change, Wildfire, Tree Mortality	Fireline Safety Awareness for the Hired Equipment Vendors courses that are required annually for private equipment operators / vendors to be admitted onto CALFIRE / USFS led fire suppression events. Demand varies, but 8-12 classes (40 students each) are typically hosted by Placer RCD.
	Firewise Trailer Program	California Fire Foundation, Listos	Climate Change, Wildfire, Tree Mortality	Outreach program providing residents to access of tools for fuel reduction and education regarding defensible space, home hardening and wildfire prevention and safety
	Fire Prevention Education	CALFIRE	Climate Change, Wildfire, Tree Mortality	Developing outreach material for homeowners regarding wildfire safety and prevention in partnership with Placer County and CALFIRE.

Source: PCRCD

Q.7 Mitigation Strategy

Q.7.1. Mitigation Goals and Objectives

The PCRCD adopts the hazard mitigation goals and objectives developed by the HMPC and described in Chapter 5 Mitigation Strategy.

Q.7.2. Mitigation Actions

The planning team for the PCRCD identified and prioritized the following mitigation actions based on the risk assessment. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible office, potential funding, estimated cost, and timeline are also included. The following hazards were considered a priority for purposes of mitigation action planning:

- Agriculture Pests and Diseases
- Climate Change
- Drought & Water Shortage
- Tree Mortality

➤ Wildfire

Though initially considered a priority hazard, due to the difficulty in the District in having direct mitigation actions for drought, it was dropped as a hazard for mitigation planning purposes. The hazards addressed below still include drought, as its effects are mitigated by these actions.

It should be noted that many of the projects submitted by each jurisdiction in Table 5-4 in the Base Plan benefit all jurisdictions whether or not they are the lead agency. Further, many of these mitigation efforts are collaborative efforts among multiple local, state, and federal agencies. In addition, the countywide public outreach action, as well as many of the emergency services actions, apply to all hazards regardless of hazard priority. Collectively, this multi-jurisdictional mitigation strategy includes only those actions and projects which reflect the actual priorities and capacity of each jurisdiction to implement over the next 5-years covered by this plan. It should further be noted, that although a jurisdiction may not have specific projects identified for each priority hazard for the five year coverage of this planning process, each jurisdiction has focused on identifying those projects which are realistic and reasonable for them to implement and would like to preserve their hazard priorities should future projects be identified where the implementing jurisdiction has the future capacity to implement.

Multi-Hazard Actions

Action 1. Fuel Breaks – Wildland Urban Interface (WUI)

Hazards Addressed: Wildfire, Tree Mortality, Climate Change, Drought and Water Shortage

Goals Addressed: 1, 2, 3, 4, 5, 6, 7

Issue/Background: The purpose of a Shaded Fuel Break within the WUI is to minimize destruction to communities from wildfire and to protect and enhance natural resources, watershed and habitat of western Placer County. When complete, these projects will help protect the community’s identified as “Communities at Risk from Wildfire” and identified as communities with the WUI, listed in the CWPP. These are important especially in times of drought. Shade in these areas conserves moisture.

This practice applies to all communities within the WUI where protection from wildfire is needed. These Shaded Fuel breaks are planned thinning of dense vegetation in an area approximately 300 feet wide where fire does not easily move from the ground into the overhead tree canopy and to allow fire resources to utilize such a location to increase probability of success during fire suppression activities. Fuel break width will be dependent upon the fuels and topography in any given area.

For our purposes, a strategic fuel break is typically placed to protect the communities identified in the Western Slope CWPP WUI, for that specific Fire Safe Council.

The Placer County Fire Safe Alliance and Fire Safe Councils have worked with County, State, and Federal agencies to identify areas within their jurisdictions to develop shaded fuel breaks to protect specific communities and watersheds within the WUI.

Project Description: Fuel reduction work is subject to specific terrain and environmental conditions and treatments may include removal of trees and vegetation by hand crews, chipping, mastication, grazing, herbicide or prescribed burning.

Other Alternatives: Rely on the individual property owner or land managers within the WUI to develop fuel breaks to protect resources and assets from fire that may spread from the wildland into urban areas.

Existing Planning Mechanism(s) through which Action Will Be Implemented: Work with the current property owner or land manager to implement shaded fuel breaks identified in the Western Slope CWPP WUI area. Apply for local, State, or Federal funding to implement these plans.

Responsible Agency/ Department/Partners: Placer County Resource Conservation District, Placer County, Stakeholders, & Landowners

Cost Estimate: The costs for the individual projects are identified in the Western Slope CWPP Project Planning Worksheets.

Benefits (Losses Avoided): Reduced risk of loss of life and property from catastrophic wildfire in developed communities, towns, and cities within the County.

Potential Funding: County, State, and Federal funding

Timeline: These projects are ongoing. Each project within the Western Slope CWPP is reviewed annually and updated as needed or removed if completed.

Project Priority (H, M, L): High

Action 2. Fuel Break – Large Strategic

Hazards Addressed: Wildfire, Tree Mortality, Climate Change, Drought and Water Shortage

Goals Addressed: 1, 2, 3, 4, 5, 6, 7

Issue/Background: Large Strategic Fuel Break projects will provide landscape scale community protection in our area. When complete, these projects will help protect the communities identified as “Communities at Risk from Wildfire” listed in the National Fire Plan.

This practice applies to all communities where protection from wildfire is needed. These Strategic Fuel breaks are planned and located on the landscape as part of a conservation management system for a land unit where there is a need to control the risk of the spread of fire into our communities as well as to protect watersheds, critical infrastructure, and commerce traveling on our freeways and railways. Typically, they break up large, continuous tracts of dense natural fuels, thus limiting uncontrolled spread of fire, and are commonly associated with firebreaks (permanent or temporary strips of bare or vegetated land planned to retard fire). For our purposes, a strategic fuel break is typically placed to protect the communities identified in the Western Slope CWPP for that specific Fire Safe Council area.

The Placer County Fire Safe Alliance and Fire Safe Councils have worked with County, State, and Federal agencies to identify areas within their jurisdictions to develop large strategic fuel breaks to protect specific communities and watersheds within the County.

Project Description: Fuel reduction work is subject to specific terrain and environmental conditions and treatments may include removal of trees and vegetation by hand crews, chipping, mastication, grazing, herbicide or prescribed burning.

Other Alternatives: Rely on the individual property owner or land managers to develop strategic fuel breaks to protect resources and assets that may be outside of their ownership or responsibility.

Existing Planning Mechanism(s) through which Action Will Be Implemented: Work with the current property owner or land manager to implement strategic fuel breaks identified in the Western Slope CWPP. Apply for local, State, or Federal funding to implement these plans.

Responsible Agency/ Department/Partners: Placer County

Cost Estimate: The cost for the individual projects is identified in the Western Slope CWPP Project Planning Worksheets

Benefits (Losses Avoided): Reduced risk of loss of life and property from catastrophic wildfire in developed communities, towns, and cities within the County.

Potential Funding: County, State, and Federal funding

Timeline: These projects are ongoing. Each project within the Western Slope CWPP is reviewed annually and updated as needed or removed if completed.

Project Priority (H, M, L): H

Action 3. Defensible Space Programs (Placer County Chipper Program)

Hazards Addressed: Wildfire, Tree Mortality, Climate Change, Drought and Water Shortage

Goals Addressed: 1, 2, 3, 4, 5, 6, 7

Issue/Background: These projects address the ongoing need to manage fuels in and around privately owned homes, businesses and communities, freeways and roadways, and “Assets at Risk” in Placer County. Small communities, individual property owners and infrastructure assets can be impacted by roadside fire starts and fire starts moving into or out of private property.

Project Description: Fuel reduction work is subject to specific terrain and environmental conditions and treatments may include removal of trees and vegetation by hand crews, chipping, mastication, grazing, herbicide or prescribed burning.

Other Alternatives: Each property owner or land manager needs to manage properties and infrastructure within their responsibility. Spread from fire starts within their property can only be prevented or contained by the fire prevention and fuel management work done by the owner.

Existing Planning Mechanism(s) through which Action Will Be Implemented: Work with the current property owner or land manager to implement fuels management and fire prevention projects identified in the Western Slope CWPP WUI area. Apply for local, State, or Federal funding to implement these plans.

Responsible Agency/ Department/Partners: Placer County Resource Conservation District, Placer County

Cost Estimate: The cost for the individual projects is identified in the Western Slope CWPP Project Planning Worksheets.

Benefits (Losses Avoided): Reduced risk of loss of life and property from catastrophic wildfire in developed communities, towns, and cities within the County. Loss of assets at risk can have significant impact on those outside of the County. Communication links and interstate transportation can be significantly impacted by wildfire along the Interstate 80 corridor.

Potential Funding: County, State, and Federal funding

Timeline: These projects are ongoing. Each project within the Western Slope CWPP is reviewed annually and updated as needed or removed if completed.

Project Priority (H, M, L): H

Action 4. Landowner Technical Assistance (Healthy Soils/ Carbon Farm Management Program)

Hazards Addressed: Climate change, Agricultural Hazards

Goals Addressed: 1, 2, 3, 4, 5, 7

Issue/Background: Placer County is located in the northern region of the Sierra Nevada foothills, between El Dorado and Nevada counties. The elevation of this county ranges from approximately 570 feet in the valley to over 9,000 feet in the Sierra Nevada mountain range on the eastern side. In 2016, Placer County experienced the second highest population growth in California at 1.8%, according to the California Department of Finance. In the same report, it was noted that Rocklin, the second largest city in Placer County, grew a staggering 4.5% in 2016, the second highest of all cities in California.

These details start to showcase the diverse, rural - yet rapidly developing - landscape of Placer County. Consequently, there is an elevated need for conservation entities in this area to help educate about and implement ecologically sound practices, especially in the current state of concern with our changing climate. Now, more than ever, is the time to promote carbon sequestration practices and other soil-health enhancing activities.

While there is an expanding urban population in this area, many residents maintain or are beginning farming and ranching enterprises. The majority of these agricultural operations are small in terms of acreage and scope, but vital to preserve as working lands to enhance watershed protection and increase carbon sequestration. The location of the lands within Placer County affords unique and valuable opportunities for carbon sequestration activities due to a considerable gradient in ecosystems types (wetlands, rangelands, riparian corridors, mixed oak woodlands, montane hardwood forests, temperate coniferous forests, agriculture, etc.), in addition to plentiful and reliable access to water within most of the county.

The implementation of climate-smart practices through a carbon sequestration lens enables both Placer RCD and CCI to further the mission of our organizations. Placer RCD is enthusiastic to establish the groundwork necessary for carbon farming activities to be successful in our foothills region. With the creation of a Carbon Management Program, we will be primed and equipped to execute robust Carbon Farm Plans with interested landowners in Placer County.

Project Description: Provide technical assistance the private landowners to improve soil health and increase carbon sequestration. The following practices may be implemented depending on site specific assessment and development of conservation/carbon farming plans.

- Mulching
- Compost application
- Residue and Tillage Management, No Till/Strip Till/Direct Seed
- Multi-Story Cropping
- Windbreak/Shelterbelt Establishment
- Forage and Biomass Planting
- Crop Rotation
- Alley Cropping
- Riparian Herbaceous Cover
- Range Planting
- Critical Area Planting
- Tree/Shrub Establishment
- Vegetative Barrier
- Grassed Waterway
- Hedgerow Planting
- Conservation Cover
- Wetland Restoration
- Contour Buffer Strips
- Riparian Restoration

Other Alternatives: No action

Existing Planning Mechanism(s) through which Action Will Be Implemented: Placer County Sustainability Plan, Climate Plan

Responsible Agency/ Department/Partners: Placer County Resource Conservation District, Placer County, Carbon Cycle Institute, National Association of Conservation Districts, National Resource Conservation Service

Cost Estimate: \$100,000 annually

Benefits (Losses Avoided): Carbons sequestration

Potential Funding: Currently funding includes grants from Carbon Cycle Institute, National Association of Conservation Districts, Natural Resource Conservation Service

Timeline: Ongoing

Project Priority (H, M, L): H