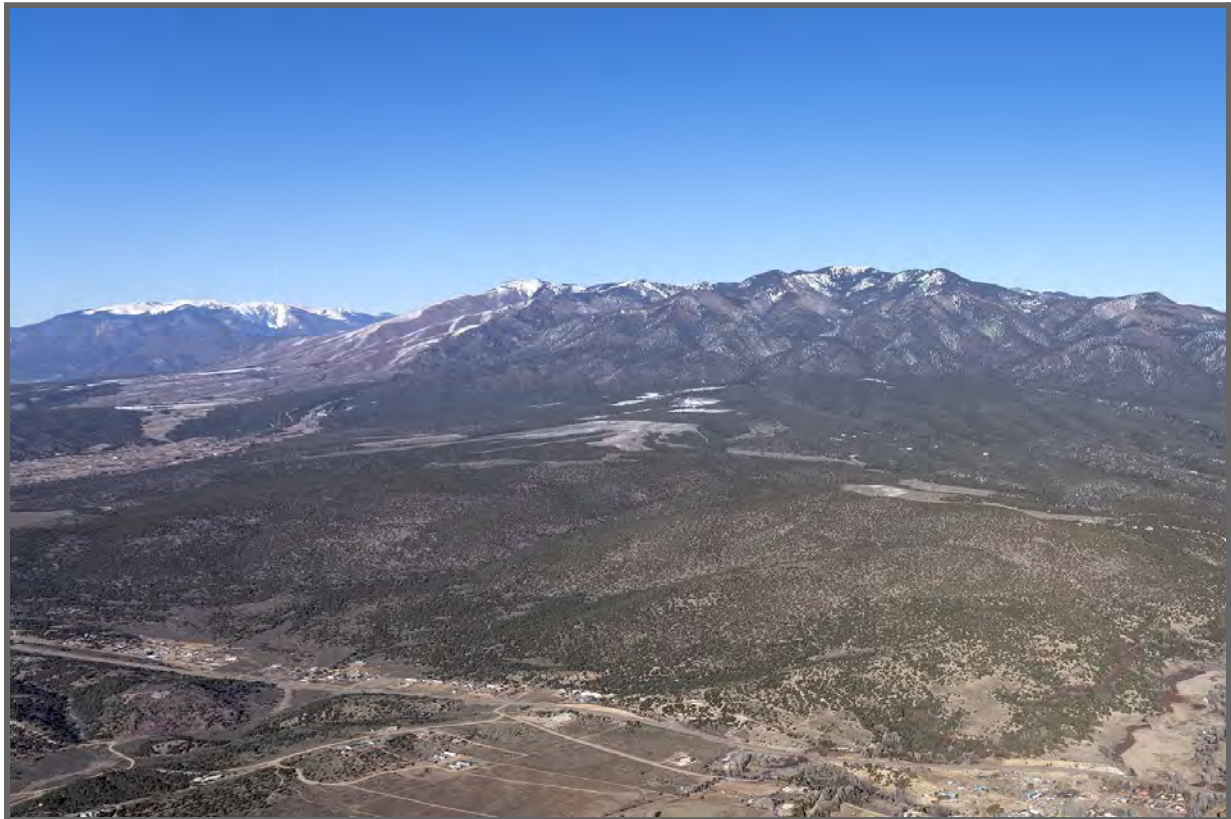


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# Gallina Canyon/San Cristobal Community Wildfire Protection Plan



*June 2021*



Asociación de Vecinos  
de San Cristóbal

PO Box 84  
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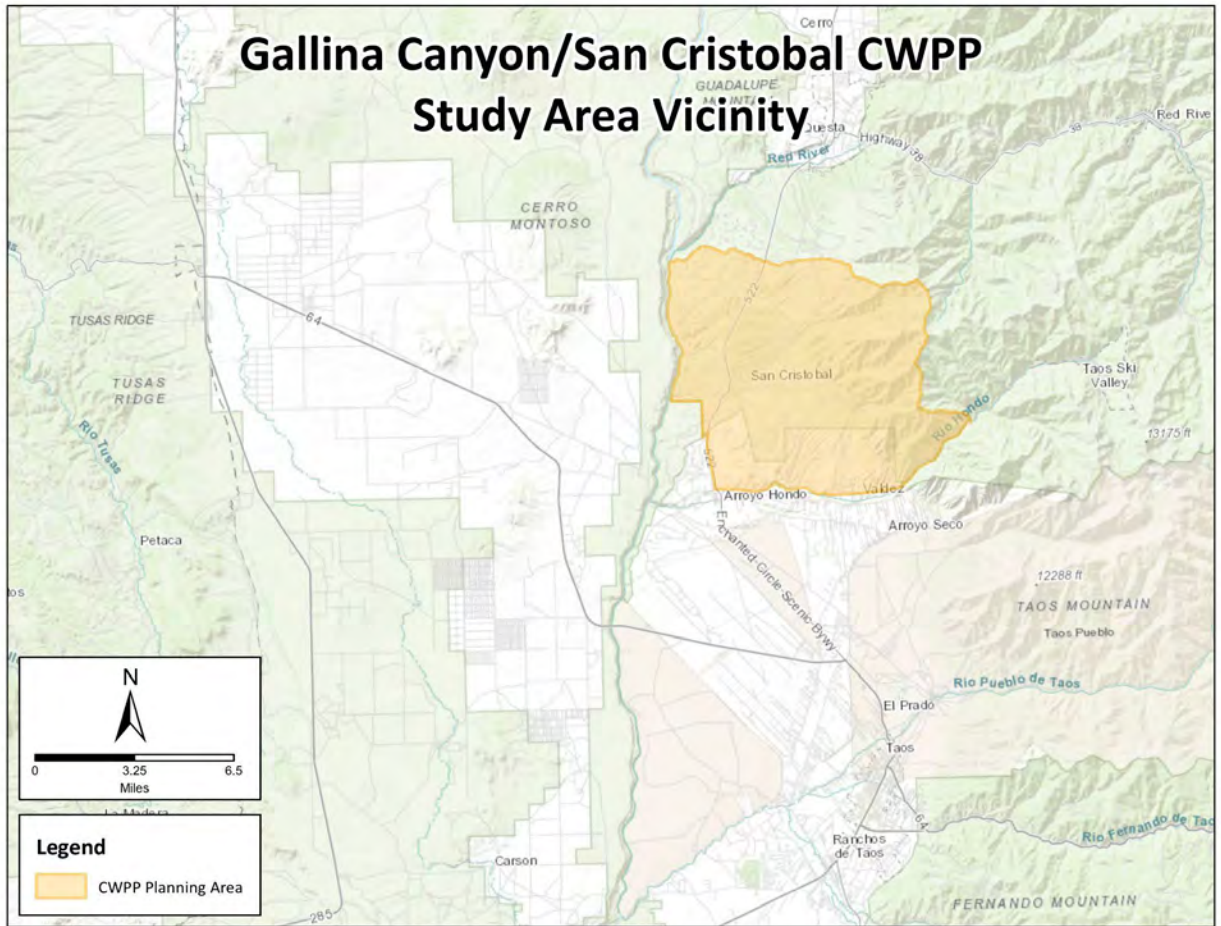
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# I. Introduction

The 2021 Gallina Canyon/San Cristobal Community Wildfire Protection Plan Update provides a comprehensive inventory of existing forest and fuel conditions, as well as a clear blueprint for taking steps to mitigate wildfire hazards, prepare for a possible wildfire and post-fire response, and expand on existing community education and outreach activities in and around the communities of San Cristobal, Gallina Canyon, Deer Mesa and Turley Mill. The plan itself was developed over a 12-month period beginning in July 2020 and was funded with a grant from the New Mexico Association of Counties to the Asociación de Vecinos de San Cristóbal. Plan development included participation from local residents, the Greater Gallina Canyon, Turley Mill and San Cristobal Firewise Committees, the Cerro Negro Forest Council, local government and agency staff from Taos County and the Taos Soil and Water Conservation District, conservation nonprofits such as The Nature Conservancy in New Mexico and Rocky Mountain Youth Corps, local forestry contractors, and federal lands managers from the Carson National Forest and Bureau of Land Management.

The Gallina Canyon/San Cristobal CWPP planning area described herein is bounded to the south by the Rio Hondo, to the west by NM 522 and the Rio Grande, to the north by the north rim of Garrapata Canyon, and to the east at the toe of the Sangre de Cristo Mountains (see Map 1). Communities at risk inside this area include Gallina Canyon, Deer Mesa, Turley Mill, San Cristobal. An estimated 395 residential structures are located within the planning area, according to data from Taos County.

Gallina Canyon and San Cristobal are both included in the 2016 Taos County CWPP Update, which serves as a countywide guide for wildfire planning and hazard mitigation. The area described in this CWPP was selected as a focal area for a stand-alone CWPP because of: 1). The considerable risk to life and property posed by catastrophic wildfire; 2). Proactives efforts by local residents to mitigate risks in their own communities and 3). Existing collaboration between community residents, local government and federal land managers; 4). Short- and long-term opportunities for hazardous fuel reduction and forest restoration activities.



**Map 1 — CWPP Planning Area Vicinity**



**Map 2 — CWPP Planning Area Detail**

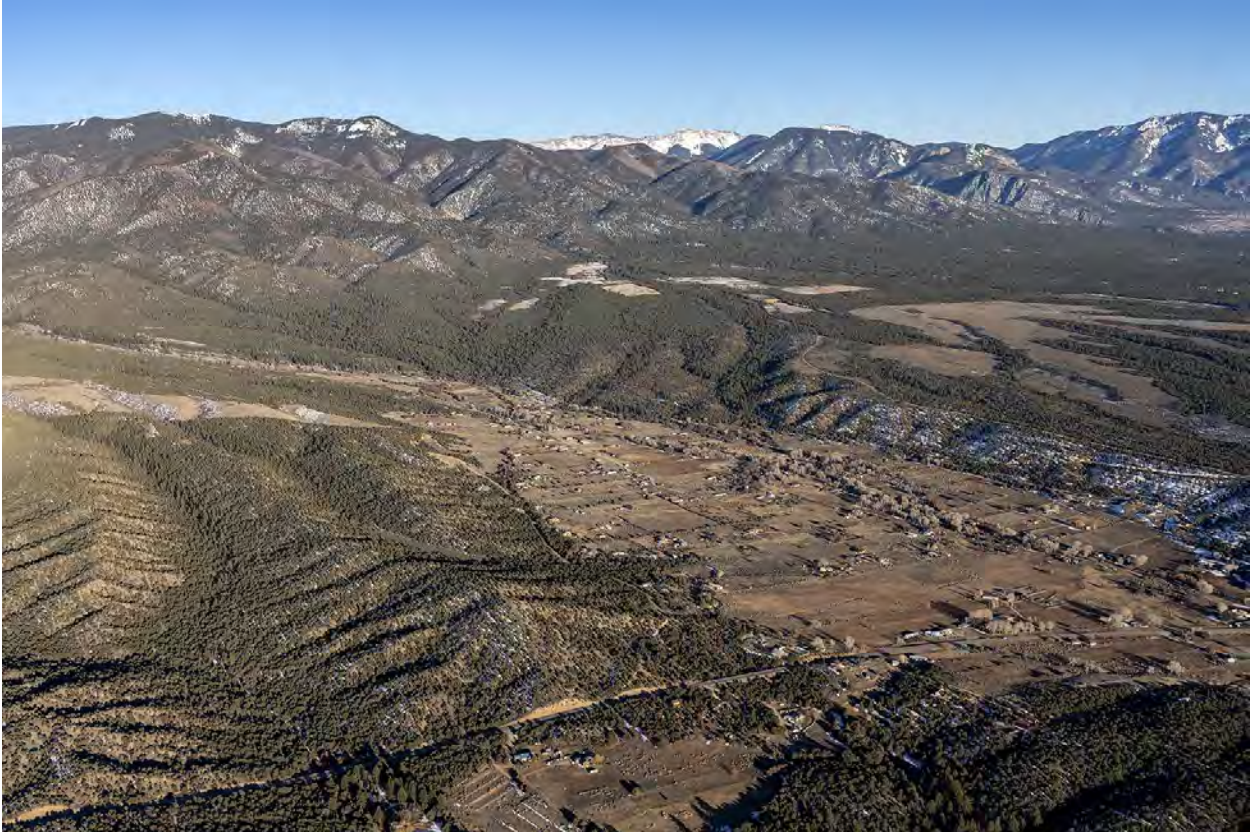


The Gallina Canyon/San Cristobal CWPP was developed after a series of public meetings and field trips intended to educate the residents about the risks posed by wildfire and the resources available to them, and solicit their input and participation in developing strategies to prioritize fuels treatments and take other measures to mitigate those risks. Ultimately, this plan provides guidance to community members and agency staff on the best and most effective ways to reduce the risk of catastrophic wildfire using science-based, collaborative solutions. Further, this plan focuses on responding to the unique needs of the Gallina Canyon and San Cristobal communities respectively, given their specific histories, wildfire risk and preparedness needs, and general connection to the forests and watersheds in their own backyards. Goals and objectives described in this planning area intended to reduce wildfire risk while improving the quality of life for residents in these rural communities.

## **II. Planning Area Background and Community Context**

The San Cristobal/Gallina Canyon CWPP Planning Area includes the San Cristobal Creek Watershed comprising the Kiowa-San Cristobal WUI Project Boundary. The Columbine-Hondo Wilderness lies adjacent to the east, and to the west is the Rio Grande del Norte National Monument. Communities within the Planning Area are San Cristobal and Gallina Canyon with the surrounding communities of Arroyo Hondo and Lama just outside of the planning area. The total planning area size is 37,148 acres with an elevation range between about 7,500 feet-above-sea-level to over 10,000 feet-above-sea-level in the eastern mountains. Encompassed within within the planning boundary is the Cerro Negro ridge to the south and Garrapata Cayon to the north. The landscape and co-existing communities are situated in a region which lends itself to wildfire movement between the neighboring communities along steep slopes and dense forest.

Archaeological evidence shows the San Cristobal Valley and Gallina Canyon areas were inhabited by pre-Puebloan settlements and hunter-gatherer societies going back thousands of years. Pit house ruins are found along the ridges above the valley bottoms, and pottery sherds and lithic artifacts suggest humans have interacted with the environment here for millenia. In



**Image 1 — The San Cristobal Valley Looking East (Credit: Chris Dahl-Bredine)**

1815, Severino Martinez petitioned the Alcalde de Taos for land that became known as the San Cristobal Land Grant. Hispano settlers established subsistence farms in the valley beginning in the mid-1800s and dug *acequias* to divert water from the San Cristobal Creek to irrigate farmland across the valley bottom. Today, residents in the valley are a mix of families descended from those pioneers as well as relative newcomers to the area who've also built homes in the valley bottom. Farming and ranching has waned as a way of life, but management of the acequia and domestic water system remain important for day-to-day life in the community. Historically, settlers relied on the adjacent forest for firewood, building materials and livestock grazing. Even today, firewood remains an important resource for residents who rely on it for heat, and some still for cooking. Access to these products changed beginning in the early 1910s, with the federal government assumed management of most of the forested land surrounding

the village on all sides. San Cristobal is home to approximately 300 residents, according to 2018 data from the U.S. Census Bureau. Local organizations include the San Cristobal Domestic Water Association, which provides water to 58 households in the valley. The San Cristobal Ditch Association manages the only acequia system in the valley, and the San Cristobal Fire Department is located in the center of the community as well. San Cristobal is also home to a Firewise Committee.



**Image 2 — Gallina Peak and the Valdez Valley (Credit: Chris Dahl-Bredine)**

The modern-day community of Gallina Canyon is located on the forested hillside to the immediate north of the Rio Hondo Valley. Since the establishment of the Arroyo Hondo Land Grant in 1815, the area was used primarily by Hispano pioneers for gathering forest materials and grazing livestock until the mid-1900s. Beginning in the last 1970s, new residents began to buy property and build homes in the area now known as Gallina Canyon. While the area



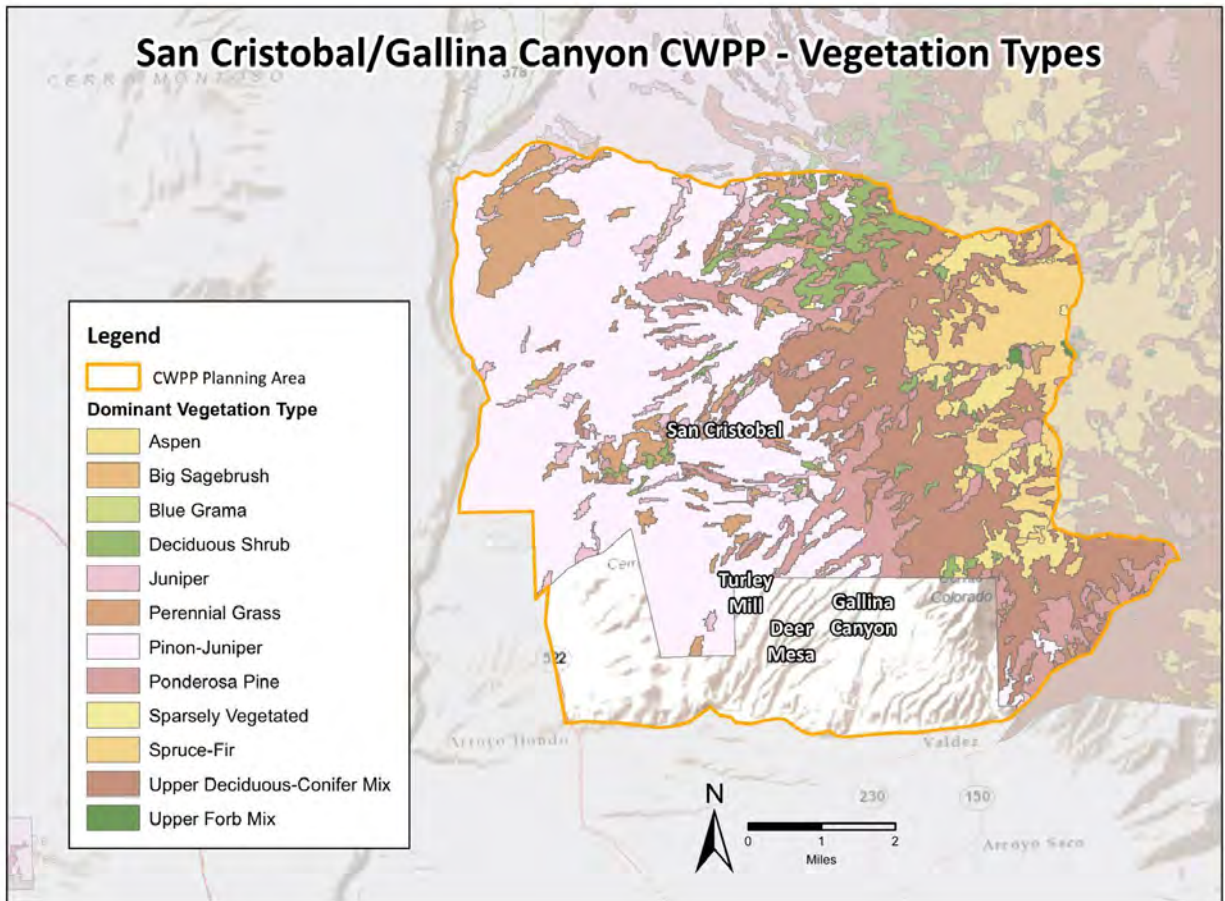
included only a handful of homes for years, there are now at least 80 known residential properties in the Gallina Canyon/Deer Mesa area. This area is among the most at-risk neighborhoods for wildfire hazards, as determined by multiple risk assessments and computer modeling. The Greater Gallina Canyon Firewise Community advocates for wildfire risk reduction and wildfire preparedness in the communities of Gallina Canyon and Deer Mesa. A separate Firewise committee has been established at Turley Mill to the west. These communities all fall within the Hondo/Seco Volunteer Fire Department District.

In order to address wildfire risks and improve ecosystem function, forest thinning, prescribed burns, and community engagement over the last four years have highlighted the need for wildfire prevention and ecological restoration in and around all of these communities. In fact, proactive engagement by residents themselves has resulted in cooperative programs involving federal land managers, local government officials and local residents with mutual benefits of reducing wildfire danger while increasing economic opportunity and cultural connections to the landscape. These early successes have blossomed into improved planning, collaboration, and implementation of projects to prevent catastrophic wildfire in the short term while mitigating the anticipated impacts of climate change on these communities and the surrounding environment. This plan seeks to refine those project designs and capitalize on existing momentum around forest and watershed protection.

### **III. Existing Forest and Fuels Conditions**

Most of the CWPP planning area in and around the WUI is characterized by piñon/juniper woodlands and shrublands, with “stringers” of ponderosa pine located in drainages and on north facing slopes at lower elevations. Forest monitoring data from recent treatment projects shows stands in both forest types as highly departed from reference conditions, with tree densities, especially in the ponderosa pine understory, well outside the historic range of variability. The majority (+70%) of the trees in piñon/juniper and in the ponderosa understory are less than 80 years old, suggesting that, as in many areas in the region, aggressive fire suppression and intense historic grazing allowed for infill of tree species that

were otherwise subject to periodic, low-intensity wildfire. Fire-scarred ponderosa samples taken from drainages near San Cristobal provide evidence of frequent surface fires of low to



**Map 3 — Dominant Vegetation Types**

medium intensity, though it's unclear to what extent these fires spread beyond the ponderosa pine belts. Further sampling, or a full fire history study of the area, would provide better evidence of wildfire's historic role in maintaining forest structure and composition in the study area. It's important to note that the undulating topography of the area creates a series of blended transition zones where sagebrush, piñon, juniper, ponderosa and deciduous riparian species (along intermittent stream corridors) often blend together as a continuous ecotone. These complex ecological overlaps make it challenging to discern what historic stand structure may have been from site to site within the CWPP planning area. Regardless of past conditions,

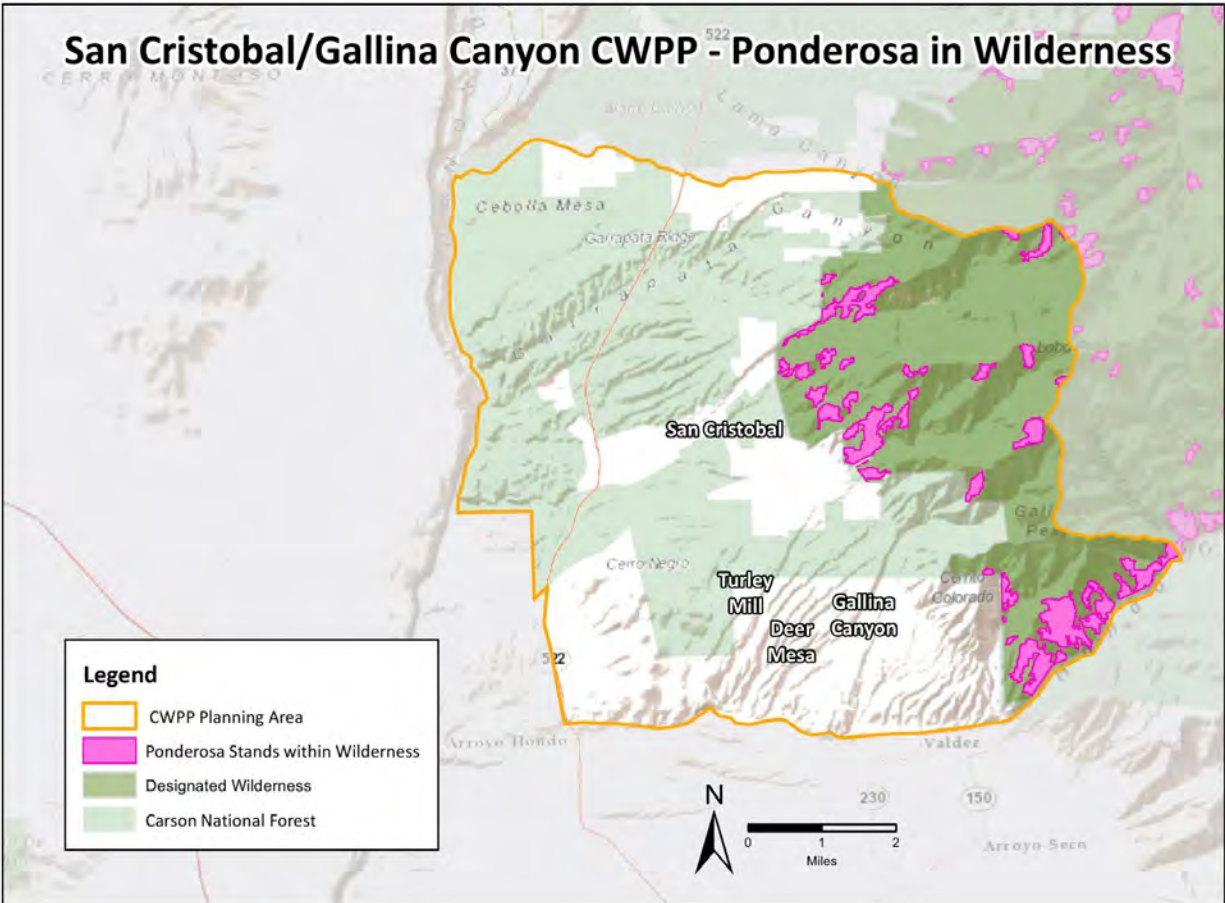
the existing stand structure represents an abundance of fuels that have a high potential for high-intensity wildfire behavior.

Forest stand types transition to almost pure ponderosa pine at around 8,000 feet-above-sea level, then to mixed conifer moving up the elevation gradient. Much of the forest above this elevation lies with the Columbine-Hondo Wilderness Area, which was a Wilderness Study Area for decades and was officially designated a Wilderness by Congress in 2014. Conditions in these ponderosa stands — which lie at the mouth of the Rio Hondo Canyon and San Cristobal Canyon — are similarly departed from reference conditions, with a buildup of fuels in the understory that have a high potential for carrying fire into tree crowns and



**Image 3 — Fire Scarred Ponderosa Sample from CWPP Study Area**

supercharging uncharacteristic, stand-replacing fire across the watershed. Such was the case on the 1996 Hondo Fire, which began in the piñon/juniper woodlands and moved with record speed into the ponderosa, where understory fuels supercharged fire behavior, resulting in a loss of more than 90% of the existing forest and destructive post-fire erosion and ash flows in the

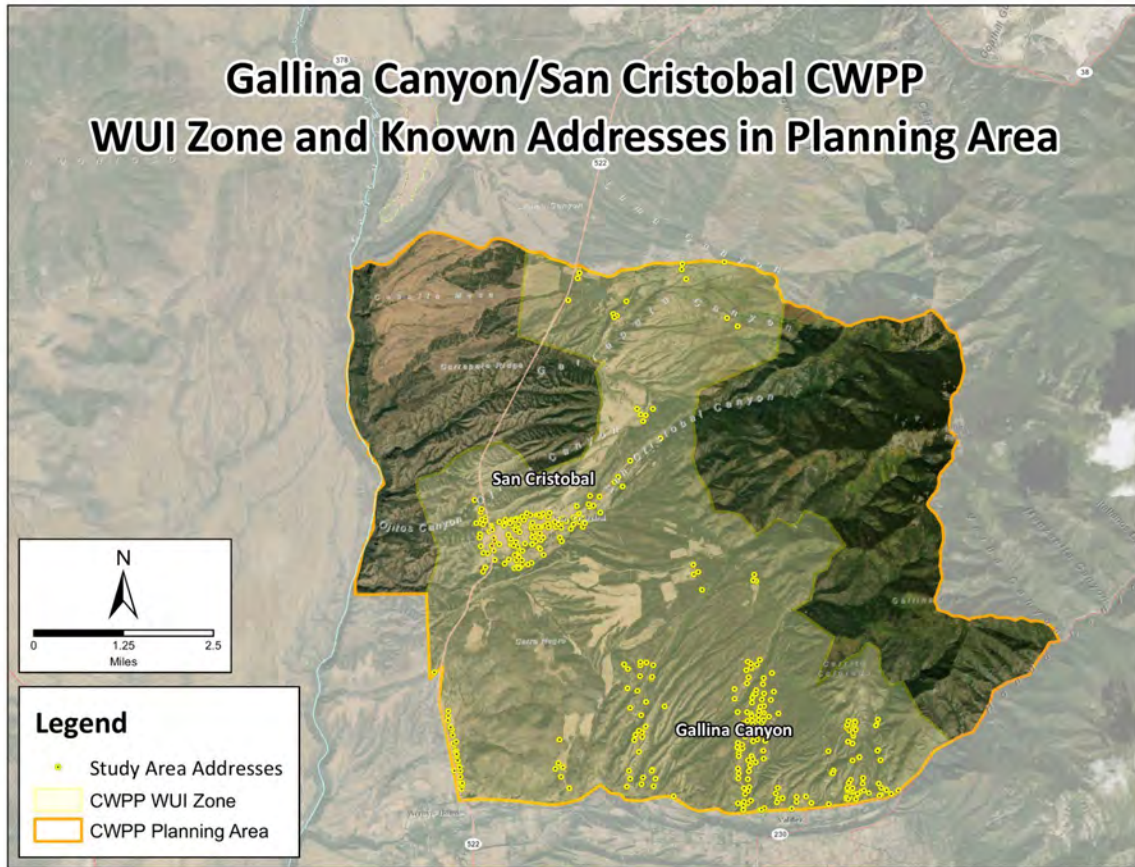


**Map 4 — Ponderosa in Designated Wilderness**

community of Lama just north of San Cristobal. Twenty-five years later, the burn area is largely dominated by Gambel oak, and it’s likely that it will take centuries for conifer species to reestablish if climatic conditions allow. Wilderness designation limits active management of forests: The use of motorized equipment (such as chainsaws) and vehicles is prohibited, and at the moment it’s not clear whether alternative options exist for treatment of these stands to restore ecological function and reduce the risk of catastrophic wildfire.

Most of the human development within WUI zones in the study area has occurred in the piñon/juniper woodlands, especially in the Gallina Canyon and Turley Mill communities. Previous fire behavior in this forest type (notably the 1996 Hondo Fire) is representative of the significant risk of fast-moving, stand-replacing wildfire.





Map 5 — WUI Zones

## IV. Communities at Risk Assessment

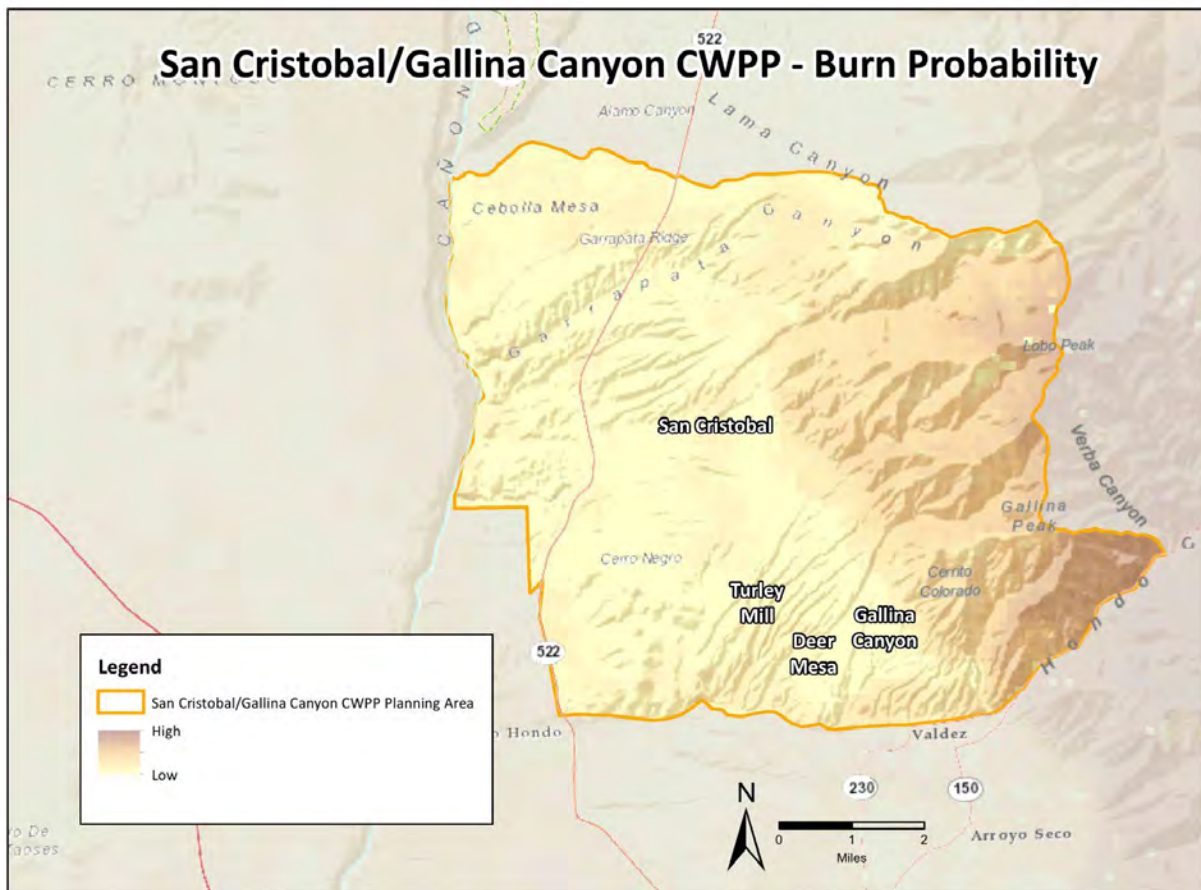
The following risk assessment was conducted in Fall 2020 and Spring 2021 in order to:

- 1). Assess values at risk, including homes, structures or other human infrastructure
- 2). Gauge the likelihood that those values would be impacted — directly or indirectly — by a wildfire and post-fire effects and
- 3). Assign a hazard rating that reflects that risk, by community.

COMMUNITY NAME	FIRE DISTRICT	VEGETATION TYPE	RISK FACTORS	HAZARD RATING
Deer Mesa	Hondo/Seco Volunteer Fire Department	Piñon/Juniper; Ponderosa Pine	Single ingress/egress; dense fuel loads, steep topography aligned with prevailing winds	High
Gallina Canyon	Hondo/Seco Volunteer Fire Department	Piñon/Juniper; Ponderosa Pine; Riparian Species	Narrow ingress/egress; dense fuel loads; steep topography aligned with prevailing winds	High
San Cristobal	San Cristobal Volunteer Fire Department	Piñon/Juniper; Ponderosa Pine; Riparian Species	Areas of dense fuel loads; areas with limited ingress/egress	Medium
Turley Mill	Hondo/Seco Volunteer Fire Department	Piñon/Juniper; Ponderosa Pine	Narrow ingress/egress; dense fuel loads; steep topography aligned with prevailing winds	High

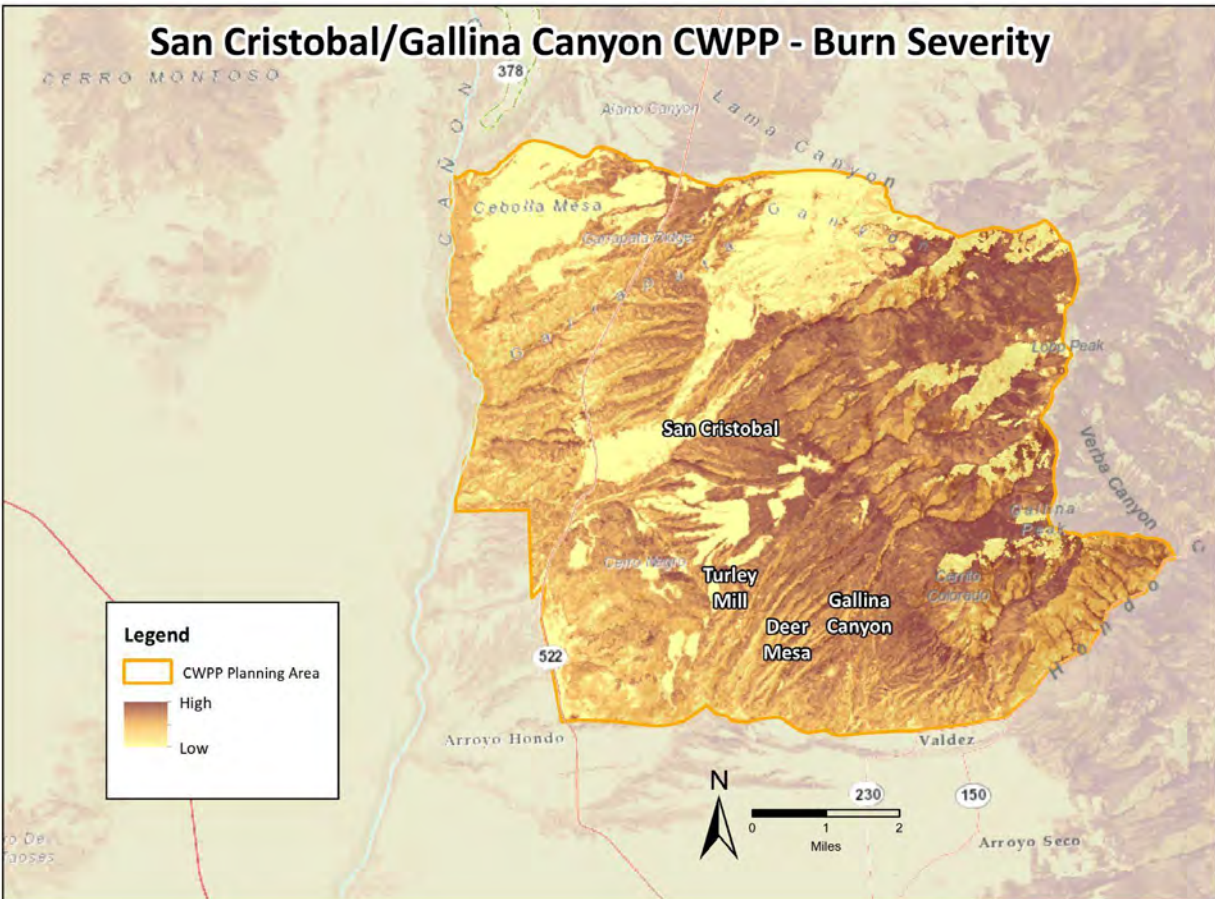
**Table 1 — Communities at Risk Assessment**

The hazard ratings described above were also informed by geospatial data related to burn probability, wildfire intensity, post-fire erosion and major fire paths. Map 6 (see below) shows burn probability within the study area. Burn probability represents the likelihood that a particular location on the landscape will burn based on factors such as ignition locations, topography, weather conditions, and the rate and direction of fire spread on a landscape.



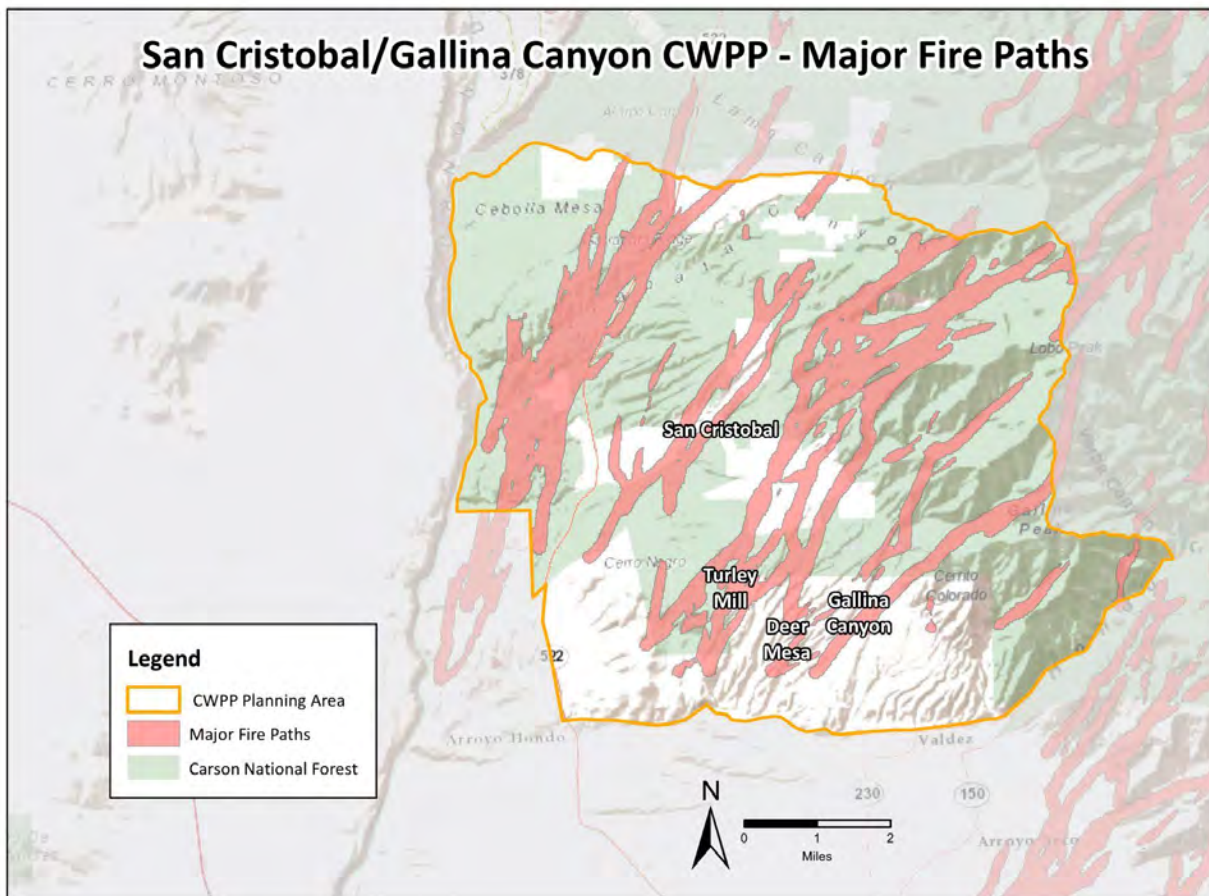
**Map 6 — Burn Probability**

Map 7 (see below) models predicted burn severity based on existing canopy cover. Actual burn severity is based on factors such as fuel loading, topography, fuel moisture and weather.





In Map 8, the Colorado-based wildfire consulting firm, Anchor Point, used known data to predict the most likely path of wildfire across forested parts of Taos County, including in this CWPP study area. These maps were created by using computer simulations of random wildfire ignitions across the landscape, then took into account fuel loads, topography, prevailing winds and other factors to estimate the most likely paths a wildfire would follow. This data helps land managers prioritize those areas where fuel reduction and fuel breaks will be most likely to prevent the spread of a high-intensity wildfire.



**Map 8 — Major Fire Paths**

The risk factors to individual communities described in the table above were compared with and verified by comments and input from local residents, county fire officials, and Forest Service land managers. Ultimately, the Gallina Canyon/San Cristobal CWPP Core Team concurred that all of this input and data provide a solid baseline from which to plan and implement projects to reduce the risk to lives and property in the study area.

The threat of catastrophic wildfire in the CWPP study area has been known for decades, and was made perfectly clear in 1996 when the Hondo Fire started in a trash barrel on the northside of San Cristobal and ran through the piñon/juniper woodlands to the highest ridge near Flag Mountain in a matter of days. High winds, dense vegetation and dry conditions fueled intense fire behavior.



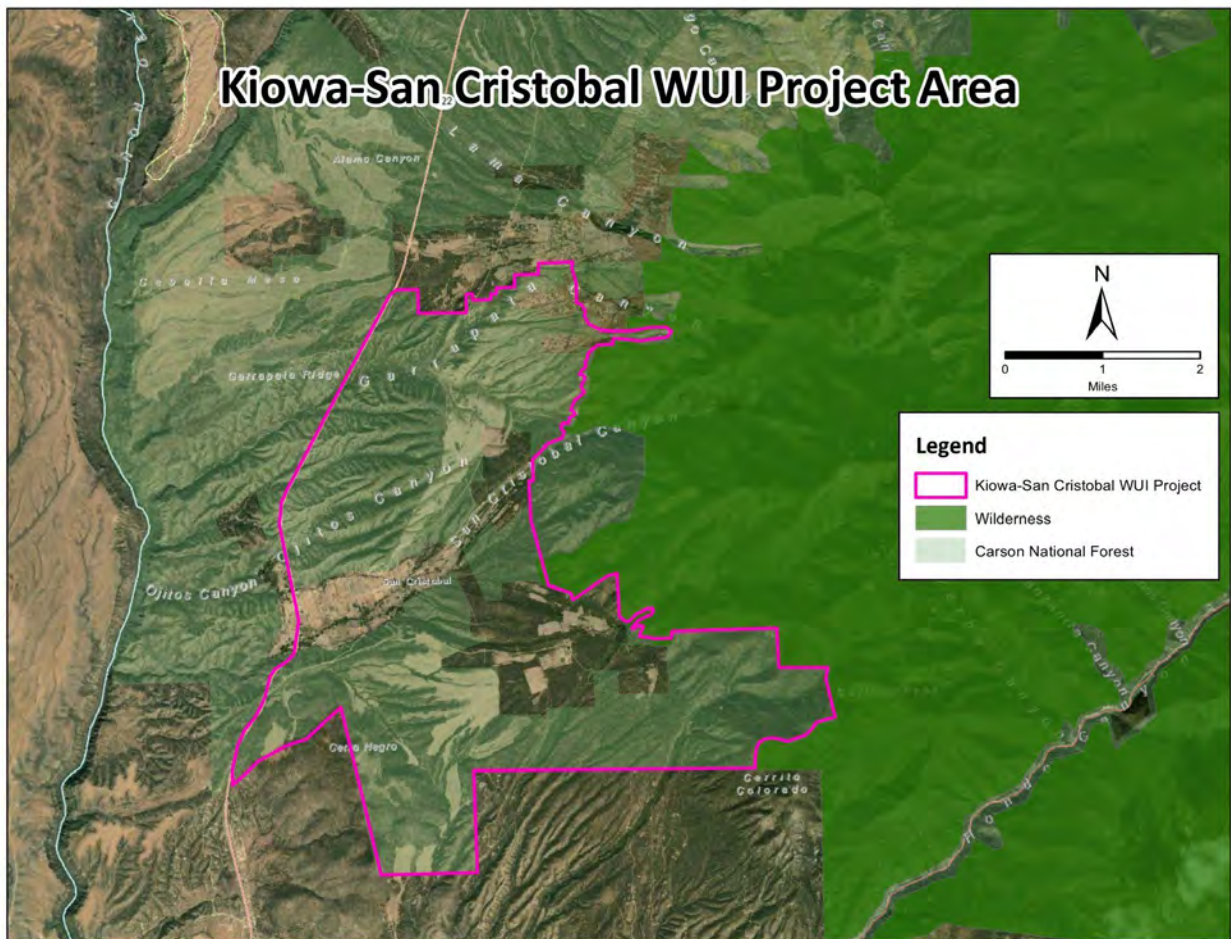
**Image 4 — 1996 Hondo Fire**

The fire destroyed more than 20 homes in the community of Lama, and led to devastating post-fire ash flows and erosion in several drainages between San Cristobal and Questa, resulting in widespread fish kills in the Rio Grande and significant impacts to acequia infrastructure in Questa and Lama. Today, the once-forested mountainside within the burn area has been converted to oak shrublands, with a few pockets of standing timber where individual ponderosa and Douglas-fir survived the blaze. These “islands” inside the burn present the most likely seed source for tree regeneration.



## V. Previous Forest Restoration and Fuel Reduction Treatments

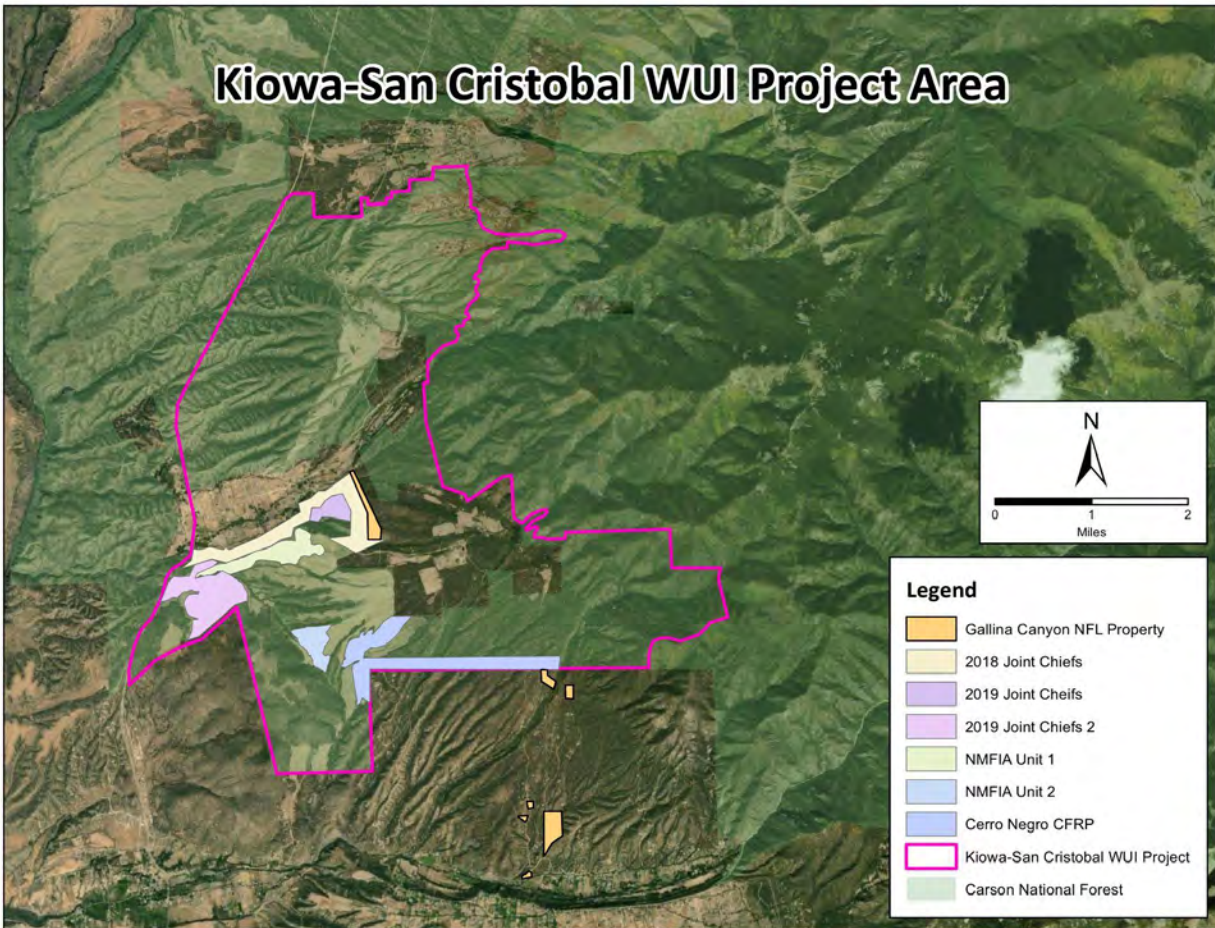
Most of the non-wilderness National Forest lands within the CWPP study area lie within the Kiowa-San Cristobal WUI Project Area — a NEPA analysis area that extends from the north end of the Gallina Canyon neighborhood, along the boundary with the Columbine-Hondo Wilderness, to the north rim of Garrapata Canyon (see Map 9). In Fall 2020, a decision memo was signed authorizing this NEPA analysis area



Map 9 — Kiowa-San Cristobal WUI Project Area

Among the activities and treatments proposed in this project area are hazardous fuel removal to reduce the risk of wildfire to the nearby communities, and to restore ecological function to forests with stand densities that far exceed reference conditions.

As of June 2021, approximately 800 acres inside the Kiowa-San Cristobal footprint had been treated, with another 250 acres funded and ready for implementation. In addition, there are about 102 acres of private land, near or adjacent to work on the National Forest, that were funded through a Non-Federal Lands (NFL) grant to Taos County. The locations of those projects were specifically intended to remove hazardous fuels in areas where major fire paths were most likely (see Map 8), or in areas where fuel conditions posed the highest risk to life and property in the wildland-urban interface.



**Map 10 — Current Forest Treatments in CWPP Study Area**



Treatment objectives to date have varied depending on the existing stand conditions, fuel types, and location. In piñon/juniper woodlands, tree spacing has been designed to reduce continuity of fuels and reduce the likelihood of a crown fire moving with intensity similar to that seen during the Hondo Fire. In ponderosa pine stringers, reducing ladder fuels in the understory in order to reintroduce prescribed or managed wildfire has been the primary objective, in part to reduce the likelihood of stand-replacing fire, but also to improve ecological function in these frequent-fire forests.



**Image 5 — CWPP Field Trip to San Cristobal Thinning Projects**

The reaction from residents to these projects has been mixed. While some have voiced support for the work being done by the Forest Service and its partners — especially those who’ve used it as an opportunity to gather wood leftover from thinning for firewood — others have been vocal about concerns that the work is being done too aggressively (i.e. too many trees are being cut). Prescribed burning following the mechanical thinning work has been especially controversial, with a few residents insisting that no burning take place or that the burning



**Image 6 — San Cristobal Pile Burn**

so far has been reckless. For their part, the Forest Service and its partners have been satisfied with the quality of the work completed to date, as well as the thoughtfulness with which it has been carried out. Efforts at reaching out to community members — including multiple field trips and meetings with residents and other stakeholders as part of this CWPP development process to describe the existing wildfire risk to life, property and watersheds — have alleviated some residents’ concerns or answered their questions about the purpose of these projects. One debate between two residents was scribbled on a public notice about a prescribed burn that was posted by the Forest Service at the San Cristobal Post Office: “STOP BURN! THIS IS BULL\$#!^ STOP BURNING Your Destroying the Forest!” wrote one resident. “Hey! Prescribed Burns SAVE the forest you dummy. (And it’s ‘you’re’),” wrote another in reply. Such contrasting sentiments aren’t unique to this community or this area, and allaying concerns about the safety and usefulness of prescribed fires remains a challenge for land managers.

## VI. Treatment Priorities

Future treatments within and adjacent to the Kiowa-San Cristobal WUI Project Area should continue focusing on the removal of hazardous fuels near communities and along fire paths that pose the greatest risk to the Rio Hondo and San Cristobal Creek Watersheds (see Map 8). In some cases, these fuel reduction projects will also remove ladder fuels in ponderosa pine forest types to improve ecological function and allow for the reintroduction of managed and/or prescribed wildfire for future maintenance of forest conditions.

Table 2 and Map 11 show the location and description of priority treatments.

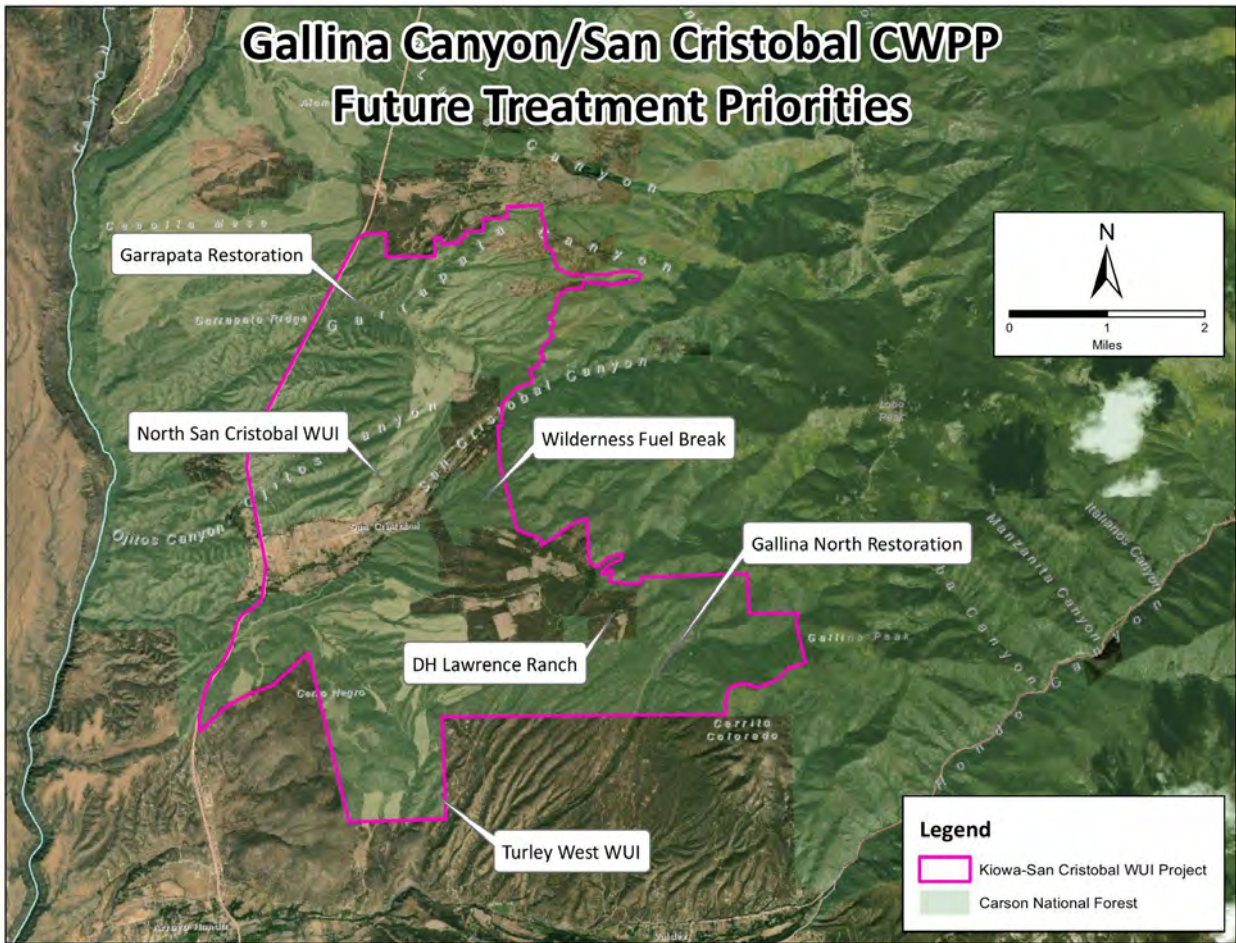
<b>Gallina Canyon/San Cristobal CWPP Implementation Priorities</b>				
<b>Implementation Area</b>	<b>Priority Level</b>	<b>Ownership Type</b>	<b>Treatments</b>	<b>Benefits</b>
Turley West WUI	High	Carson National Forest	Thinning and Burning	Hazardous Fuel Removal; Fuelbreak in WUI Zone
Gallina North Restoration	High	Carson National Forest	Thinning and Burning	Hazardous Fuel Removal; Restored Ecological Function
DH Lawrence Ranch	High	Private (UNM)	Thinning and Burning	Hazardous Fuel Removal; Restored Ecological Function

Wilderness Fuel Break	Medium	Carson National Forest	Thinning and Burning	Hazardous Fuel Removal; Restored Ecological Function; Firebreak in WUI Zone
Bosque Fuel Reduction	Medium	Private (Multiple Landowners)	Thinning and Burning/Chipping	Hazardous Fuel Removal; Restored Ecological Function; Firebreak in WUI Zone
North San Cristobal WUI	Low	Carson National Forest	Thinning and Burning	Hazardous Fuel Removal; Restored Ecological Function; Firebreak in WUI Zone

**Table 2 — Future Treatment Priorities**

For implementation of this work, the National Forest and its partners should emphasize opportunities for professional local contractors to complete this work, when possible. This may include developing projects and treatment plans in partnership with Taos County, which entered into a Good Neighbor Authority Master Agreement with the Carson National Forest in May 2022. Such an arrangement will maximize the economic and social benefits of restoration work for local businesses and the local workforce. Similarly, the National Forest should consider continuing the “forest mayordomo” model in order to provide convenient access to firewood and other wood projects for locals while targeting fuel reduction treatments near communities.





**Map 11 — Future Treatment Priorities**

## VIII — Education and Outreach Priorities

In order to amplify the benefits of on-the-ground treatments and become better prepared for a wildfire, this CWPP describes several programs and projects suggested and ranked as part of the CWPP development process:

<b>Education and Outreach Priorities</b>			
<b>Activity</b>	<b>Priority Level</b>	<b>Benefits</b>	<b>Partners</b>
Create evacuation plan for Gallina Canyon, Deer Mesa and Turley Mill neighborhoods	High	Provides clear plan to coordinate evacuation routes with multiple landowners in the event of a wildfire	Firewise communities, Taos County WUI Coordinator, Taos County Fire/EMS, Volunteer Fire Departments, Carson National Forest
Create and make available master list of area thinning contractors, including services provided and approximate cost of services	High	Gives property owners access to up-to-date list of professional service providers, and helps property owners understand the costs associated with hiring crews to create defensible space	Firewise communities, Taos County WUI Coordinator, New Mexico Forestry Division, Taos Soil and Water Conservation District, New Mexico Forest Industry Association

Research possibility of producing firewood and other value-added wood products harvested as part of thinning and restoration projects	Medium	Ensures minimal waste of small-diameter wood products and may reduce the net cost of thinning treatments	New Mexico Forestry Division, New Mexico Forest Industry Association, local forestry contractors
Establish annual or semi-annual event that includes a field trip to a current or past treatment project	Medium	Provides regular opportunity to educate residents about the science and purpose of landscape-scale thinning projects	Asociación de Vecinos de San Cristóbal, Taos County WUI Coordinator, Taos Soil and Water Conservation District, New Mexico Forestry Division

**Table 3 — Education and Outreach Priorities**

## **IX — Evacuation and Wildfire Response Plan**

The purpose of this response plan is to describe the organization, assign responsibilities and specify actions required to conduct an emergency evacuation of Gallina Canyon, San Cristobal and the neighboring communities in the event of wildfire or other emergency that endangers the residents in that area. This plan is largely modeled on a similar plan developed for the Taos Canyon area. The need for an orderly and well-understood evacuation plan is especially important for residents of Gallina Canyon, Deer Mesa and Turley Mill, where limited egress/ingress and narrow roads will make it challenging for residents to move out of the area quickly and safely while also allowing emergency response vehicles to enter if necessary.

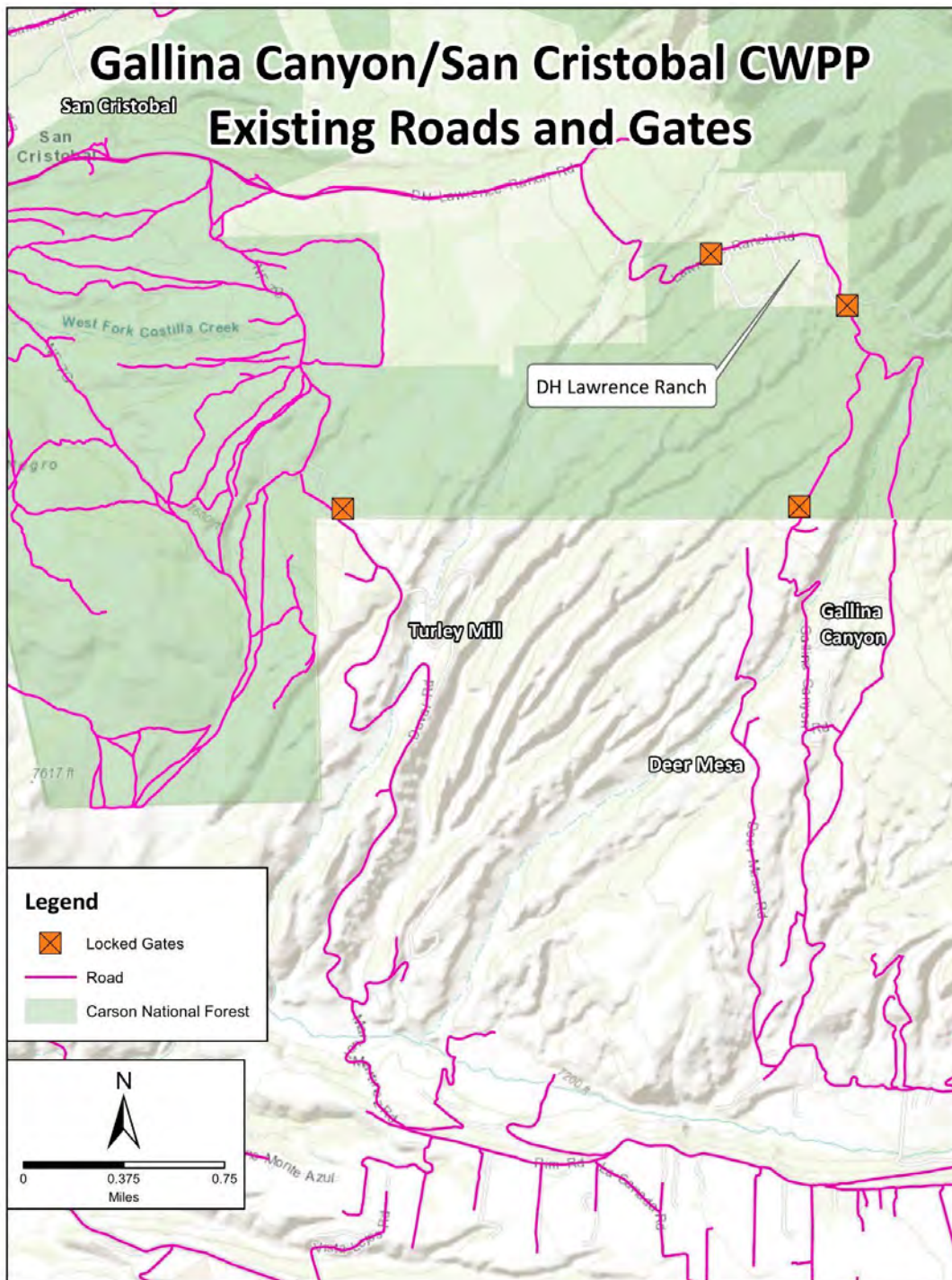
It’s important to note that a comprehensive evacuation plan specific to each community, including the creation of phone trees, identification of safety zones and other details should be a priority action item for Firewise communities (see Table 3 above).



If time and the situation permits, the decision to initiate evacuation of any area will be made by the Taos County Emergency Manager (EM) or a designated government official. If time does NOT permit, the Incident Commander (IC) of the fire/emergency will initiate evacuation and notify government officials as time allows. The EM or IC will notify the Hondo/Seco and San Cristobal fire districts that evacuation is needed. This notification can be done through Taos Central Dispatch and/or by phoning the local fire chiefs or designates directly. Residents will be notified via phone-tree of the need for evacuation and provided instructions by the most expeditious means available as the situation dictates.

Procedures described below will be established to warn people within the area of the need for evacuation, establish evacuation routes, provide transport as needed/required, identify safe shelter-in-place sites, control access to the area, and finally provide for the orderly and safe return of people and animals to the area. The direction of evacuation will be dictated by the location of the fire/emergency in the area.

<b>Notification Methods and Responsible Parties</b>	
<b>METHOD</b>	<b>RESPONSIBLE AGENCY</b>
Phone Tree/Text/E-Mail	GCFC; TMFC; AVSC/SCFC
Taos County Mass Notifications	<a href="#">Taos County Emergency Services (Sign up Link)</a>
Media	Taos County Fire/EMS; Public Information Officer
Door-to-door	NM State Police, Taos County Sheriff, VFDs, Taos Search & Rescue, Mutual Aid Fire Depts
Public Address-equipped vehicles	NM State Police, Taos County Sheriff, VFDs, Taos Search & Rescue, Mutual Aid Fire Depts



**Map 12 — Existing Roads and Gates**

In the event of a wildfire, evacuees are asked to follow the checklists in the [Ready–Set–Go Wildfire Evacuation Guide](#) and to secure their home in the following manner time permitting.

1. Turn off gas and electric service to house
2. Unlock doors/windows for fire personnel, but secure/hide valuables
3. Place fire gel, if available, outside home for fire personnel
4. Leave gates open for fire personnel
5. Tie white towel/cloth to the gate or house door indicating the premise is evacuated.

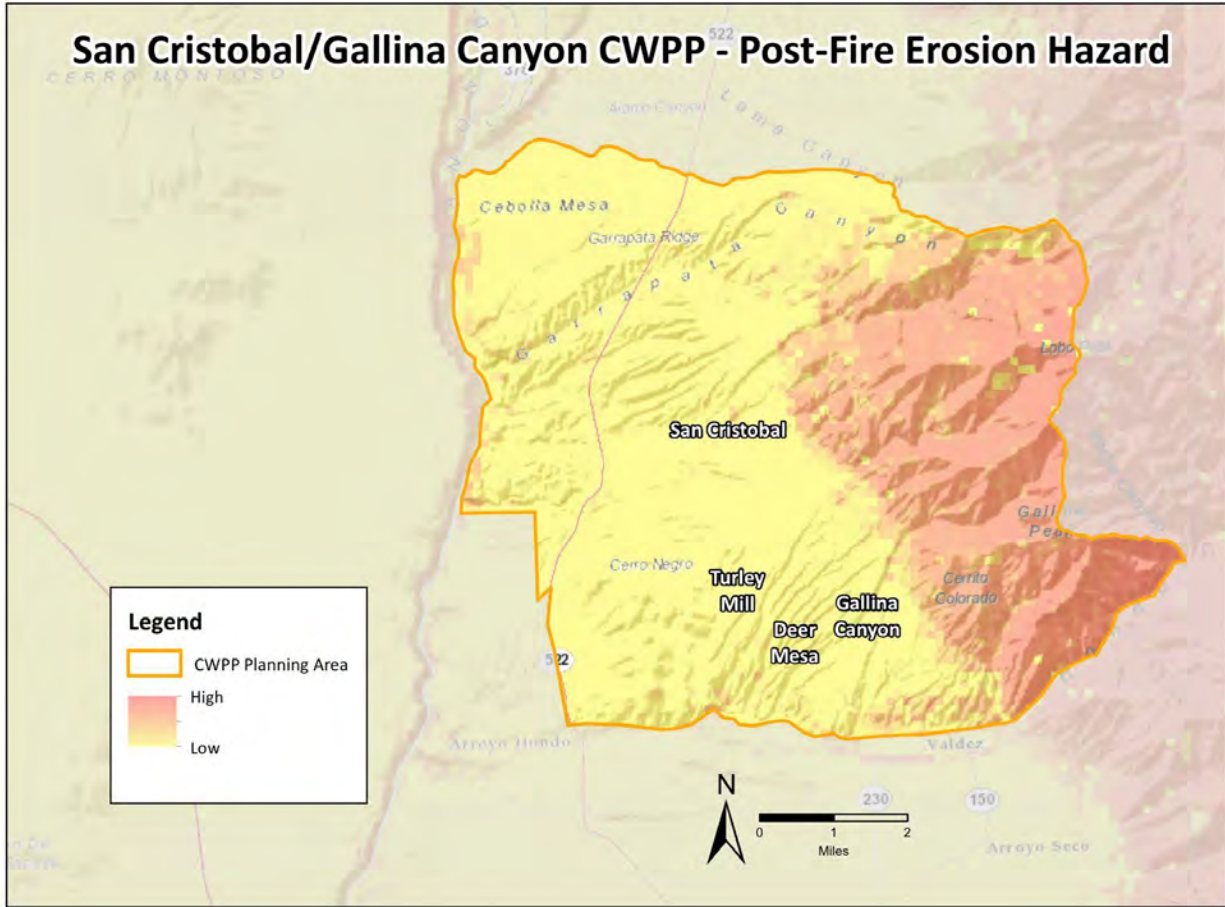
Essentials recommended evacuees take with them time permitting:

- Important documents – insurance papers, titles/deeds
- Medications
- Toiletries, sleeping bag/blankets
- Checkbook, credit cards, cash, driver’s license, passport
- Change of clothes, flashlight/batteries, food

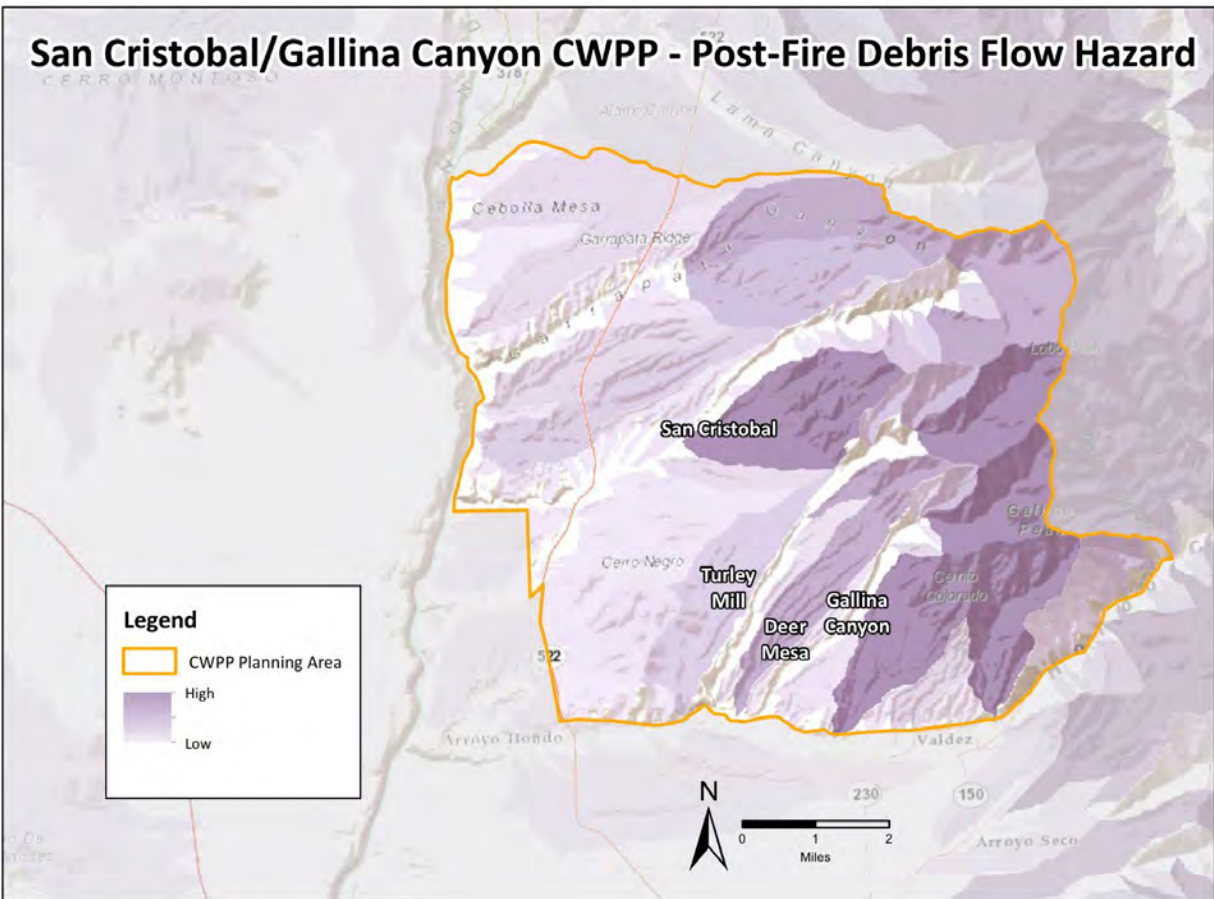
## **X. Post-Fire Response and Resources**

The short- and long-term impacts of an uncharacteristic, catastrophic wildfire in the CWPP study area will vary depending on the severity of the burn, the corresponding damage to structures and other human infrastructure, and the effects on ecosystem services, especially as they relate to wildlife habitat, water storage and surface water quality. Computer modelling shows that post-fire erosion threat (Map 13) and post-fire debris flow hazards (Map 14) are highest along the the foothills of the Sangre de Cristos, especially in the San Cristobal Creek and Gallina Creek drainages, as well in the hills immediately above the east side of Valdez. High post-fire debris flow would almost certainly exacerbate water quality conditions for years, if not decades into the future.





**Map 13 — Post-Fire Erosion Hazard**



**Map 14 — Post-Fire Debris Flow Hazard**

In the event of such a fire, a number of resources should be called on in order to mitigate the impacts to water and to homes and properties in Taos Canyon. Specifically, the Forest Service Burned Area Emergency Response (BAER) program provides erosion control structures and revegetation to mitigate further damage in those areas that post the greatest threat. Emergency stabilization immediately after a high-severity wildfire is key to preventing further harm to the greatest extent possible. The focus of the BAER program is to install these features on Forest Service lands, but response plans and implementation are often done in partnership with tribal, state and local agencies. Additional information about this program is available at: <https://www.fs.fed.us/naturalresources/watershed/burnedareas-background.shtml>

In addition, the “After Fire: A Guide for New Mexico Communities” handbook provides an up-to-date guide for communities trying to bounce back from a major wildfire. The guide is a reliable resource for any community looking for direction on how to organize partners and develop a long-term, post-fire rehabilitation plan. More information about the guide can be found at [www.afterwildfirenm.org](http://www.afterwildfirenm.org). For each affected community, it is recommended that a community leader be designated to shepherd the post-fire rehabilitation plan.

## **XI. CWPP Action Plan Timeline and Assessment Strategy**

This section is intended to provide a tentative timeline for the education and outreach, and treatment implementation described in this document. While the dates shown in this timeline are aspirational, they do provide a framework for applying the priorities in this CWPP with the primary goal of reducing the threat of wildfire in Taos County.

To help in those efforts, the CWPP Core Team should immediately engage directly with the Taos Valley Watershed Coalition, the Carson National Forest and New Mexico Forestry Division, all of whom are in the early stages of prioritizing forest restoration and wildfire risk reduction projects for most of north-central New Mexico for the next five to 10 years. Those groups are being guided by the 2020 New Mexico Forest Action Plan Update, which developed maps of priority watersheds across the state that will serve as justification for the order in which projects are developed and implemented. The table below provides a timeline, by activity, for projects described in this CWPP:



<b>CWPP Action Plan Timeline</b>			
<b>Activity</b>	<b>Activity Type</b>	<b>Implementation Year</b>	<b>Lead Partners</b>
Create evacuation plan for Gallina Canyon, Deer Mesa and Turley Mill neighborhoods	Outreach and Education	2022	Firewise communities, Taos County WUI Coordinator, Taos County Fire/EMS, Volunteer Fire Departments, Carson National Forest
Create and make available master list of area thinning contractors, including services provided and approximate cost of services	Outreach and Education	2022	Firewise communities, Taos County WUI Coordinator, New Mexico Forestry Division, Taos Soil and Water Conservation District, New Mexico Forest Industry Association
Research possibility of producing firewood and other value-added wood products harvested as part of thinning and restoration projects	Outreach and Education	2023	New Mexico Forestry Division, New Mexico Forest Industry Association, local forestry contractors
Establish annual or semi-annual event that includes a field trip to a current or past treatment project	Outreach and Education	2023	Asociación de Vecinos de San Cristóbal, Taos County WUI Coordinator, Taos Soil and Water Conservation District, New Mexico Forestry Division
Turley West WUI	Treatment	2023	Carson National Forest,

	Implementation		Taos Valley Watershed Coalition, Taos County
Gallina North Restoration	Treatment Implementation	2024	Carson National Forest, Taos Valley Watershed Coalition, Taos County
DH Lawrence Ranch	Treatment Implementation	2024	University of New Mexico, Private Landowners. Taos Valley Watershed Coalition, Taos County, New Mexico Forestry Division
Wilderness Fuel Break	Treatment Implementation	2024	Carson National Forest, Taos Valley Watershed Coalition, Taos County
North San Cristobal WUI	Treatment Implementation	2025	Carson National Forest, Taos Valley Watershed Coalition, Taos County
Garrapata Restoration	Treatment Implementation	2025	Carson National Forest, Taos Valley Watershed Coalition, Taos County

The CWPP planning team intends to meet at least annually to review the status of these projects to ensure that partners are following through on the action plan. They will also establish and maintain clear lines of communication to foster continued collaboration among communities and better leverage limited resources. Through the creation of relevant project strategies informed by regional and local experts, the CWPP process can efficiently respond to the ever-evolving threat of catastrophic wildfire and in turn, protect the rich cultural and ecological values in the project area.

# APPENDICES:

## I. References (with hyperlinks)

[After Wildfire: A Guide for New Mexico Communities](#)

[Kiowa/San Cristobal WUI Project Environmental Assessment](#)

[Evaluating approaches to mapping burn probabilities for a quantitative wildland fire risk analysis framework](#)

[2016 Taos County Community Wildfire Protection Plan](#)

[New Mexico Forest Action Plan \(2020 Update\)](#)

[Taos Valley Watershed Coalition 2015 Landscape Restoration Strategy](#)

[Surface Fire to Crown Fire — Fire History in the Taos Valley Watersheds, New Mexico USA](#)

## II. Grants, Cost-Share and Other Funding Programs

- [Collaborative Forest Restoration Program](#): Up to \$360,000 in federal funding for planning, implementation or utilization projects on federal, tribal or local government lands. Requires 20% match.
- [Joint Chiefs Landscape Restoration Partnership](#): Competitive funding administered by U.S. Forest Service and Natural Resources Conservation Service (NRCS). Appropriates funding for projects on Forest Service lands, and makes special funding available to NRCS for work on private lands within a specific geography
- [New Mexico Forest and Watershed Restoration Act](#): Annual appropriation of \$2 million available for watershed and forest health projects. Proposals must go through New Mexico Forestry Division offices. Funding may be applied on all lands in the state.
- [Rio Grande Water Fund](#): Private program focused on forest and riparian restoration administered by The Nature Conservancy in New Mexico. Funding periodically available through a competitive application process. Funds may be used on private, federal and/or tribal lands.
- [Non-Federal Lands Hazardous Fuels Grant](#): Annual program administered by New Mexico Forestry Division. Up to \$300,000 in funding available to local governments for fuel reduction on non-federal lands. Projects should include joint planning and implementation with the U.S. Forest Service. No match required.
- [Landscape Scale Forest Restoration Program](#): Funding available to local government, tribes and non-profits for work on all lands *except* federal lands. Competitive program to reduce the risk of uncharacteristic wildfire. One-to-one match required.
- [Wildland-Urban Interface Hazardous Fuels Grant](#): Annual program open to local governments and tribes for reduction of hazardous fuels in WUI zones. Funds may be used for treatments, planning and/or education and outreach activities. Connection to a current CWPP is recommended. One-to-one match required.



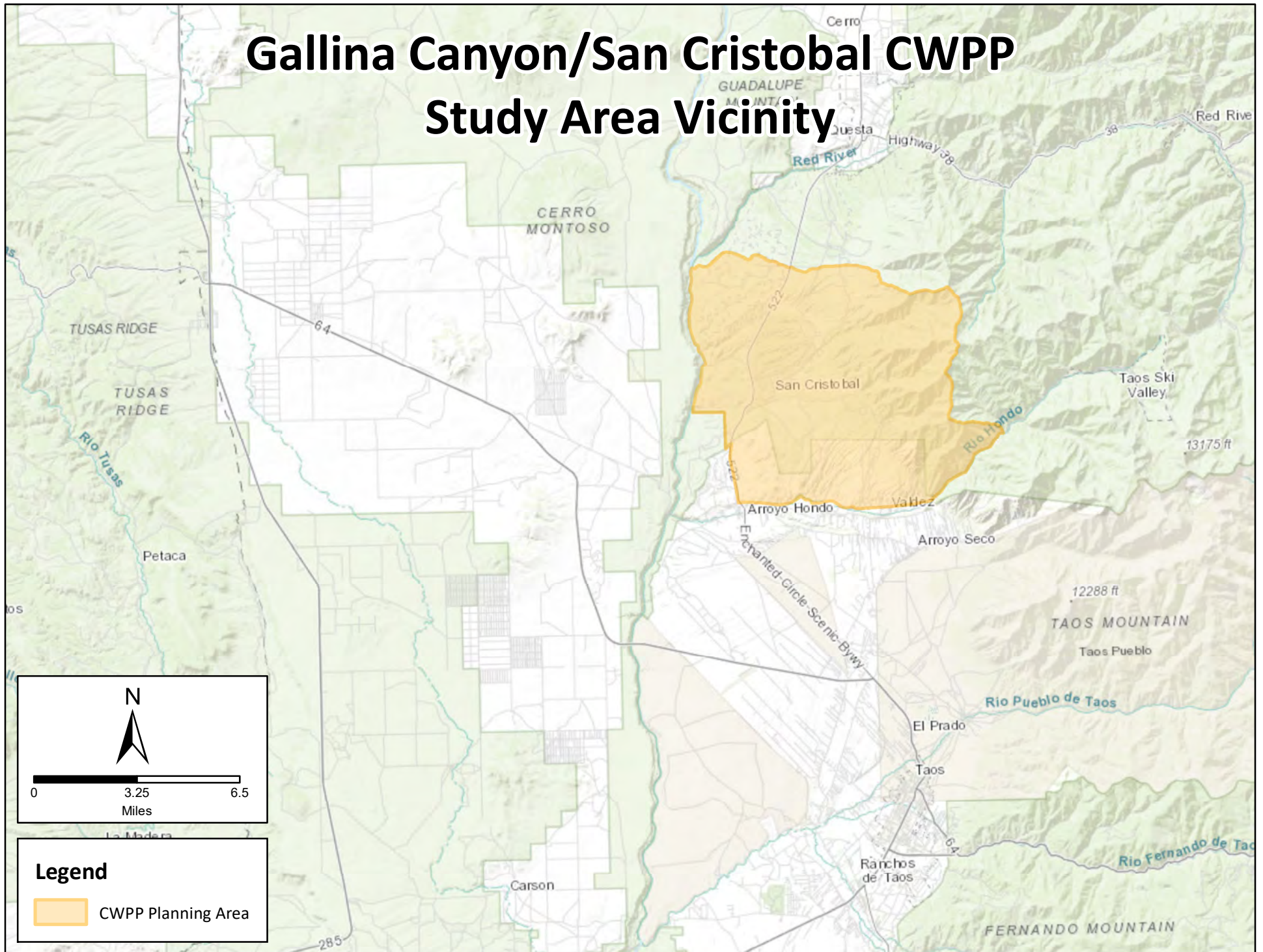
[-Taos Soil and Water Conservation District](#): Cost-share program available to Taos County property owners who live outside the town of Taos limits. Ideal for small projects (funding limited to \$4,500 per project). Applications accepted year round.

### **III. 2021 San Cristobal/Gallina Canyon CWPP Atlas**

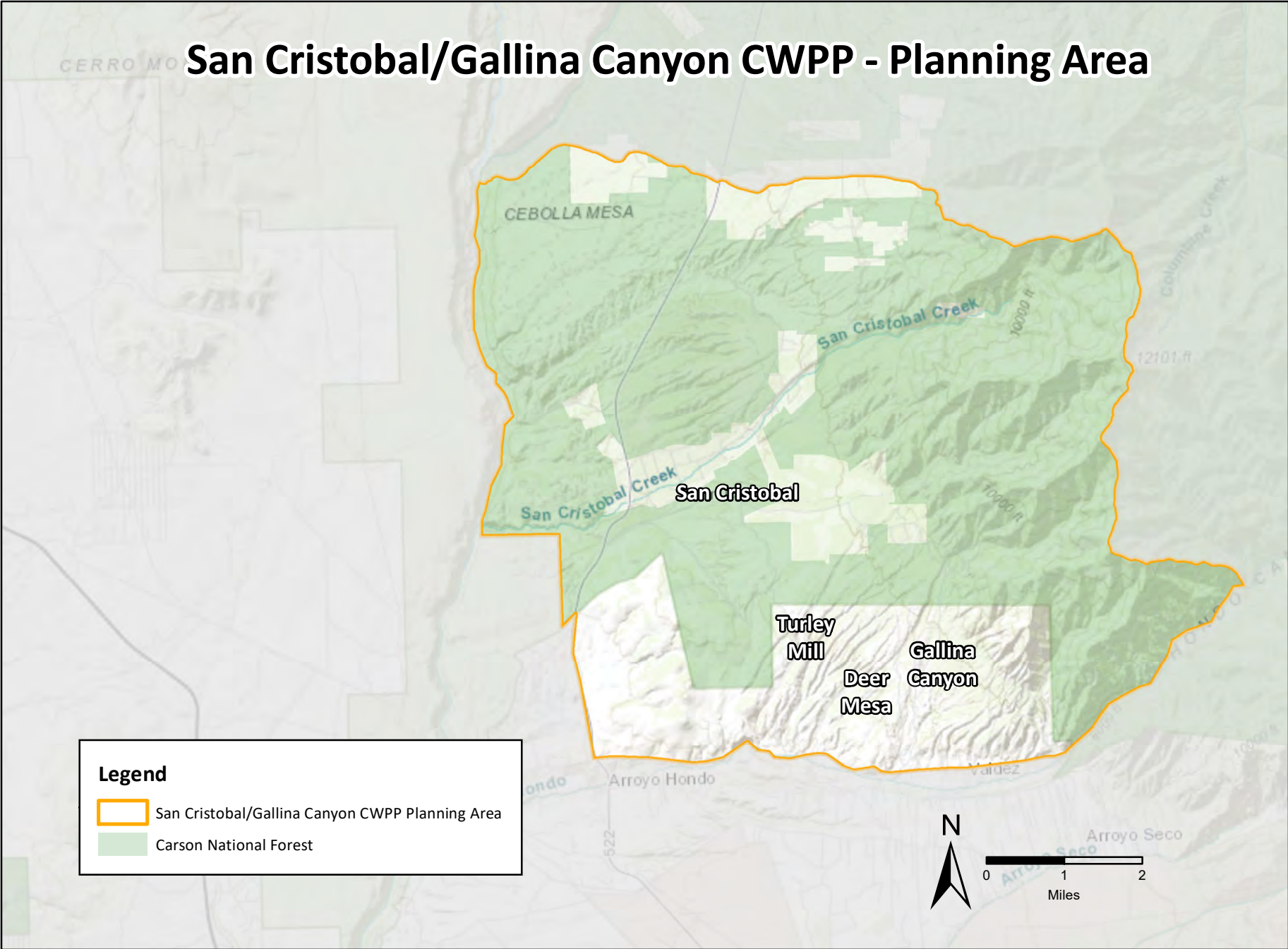
#### **Index of Atlas Maps:**

1. CWPP Planning Area Vicinity Map
2. CWPP Planning Area (topographic)
3. CWPP Planning Area (aerial)
4. Dominant Forest Types
5. WUI Zones
6. Burn Probability
7. Burn Severity
8. Major Fire Paths
9. NEPA Areas
10. Treatment Priorities
11. Post-Fire Erosion Threat
12. Post-Fire Debris Flow Hazard
13. Previous Treatments
14. Wilderness Areas
15. Ponderosa Stands in Designated Wilderness Areas
16. Existing Roads and Location of Locked Gates
17. San Cristobal Valley — Aerial Photo from October 1962



# Gallina Canyon/San Cristobal CWPP Study Area Vicinity




# CERRO MO **San Cristobal/Gallina Canyon CWPP - Planning Area**



**Legend**

-  San Cristobal/Gallina Canyon CWPP Planning Area
-  Carson National Forest

**N**





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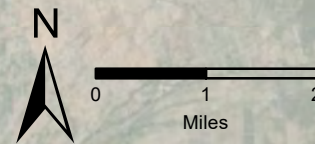


# San Cristobal/Gallina Canyon CWPP - Planning Area



## Legend

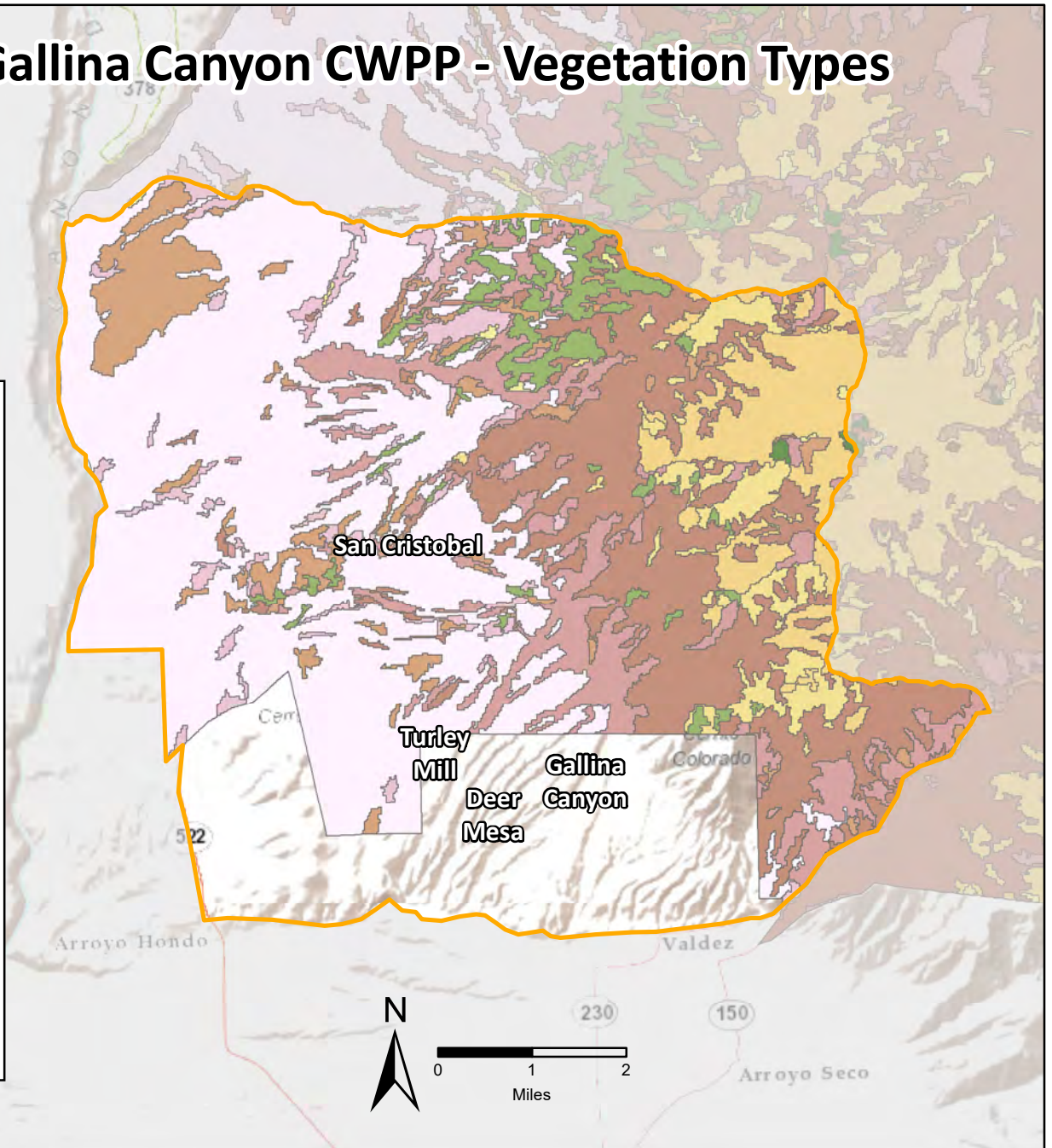
-  San Cristobal/Gallina Canyon CWPP Planning Area
-  Carson National Forest



# San Cristobal/Gallina Canyon CWPP - Vegetation Types

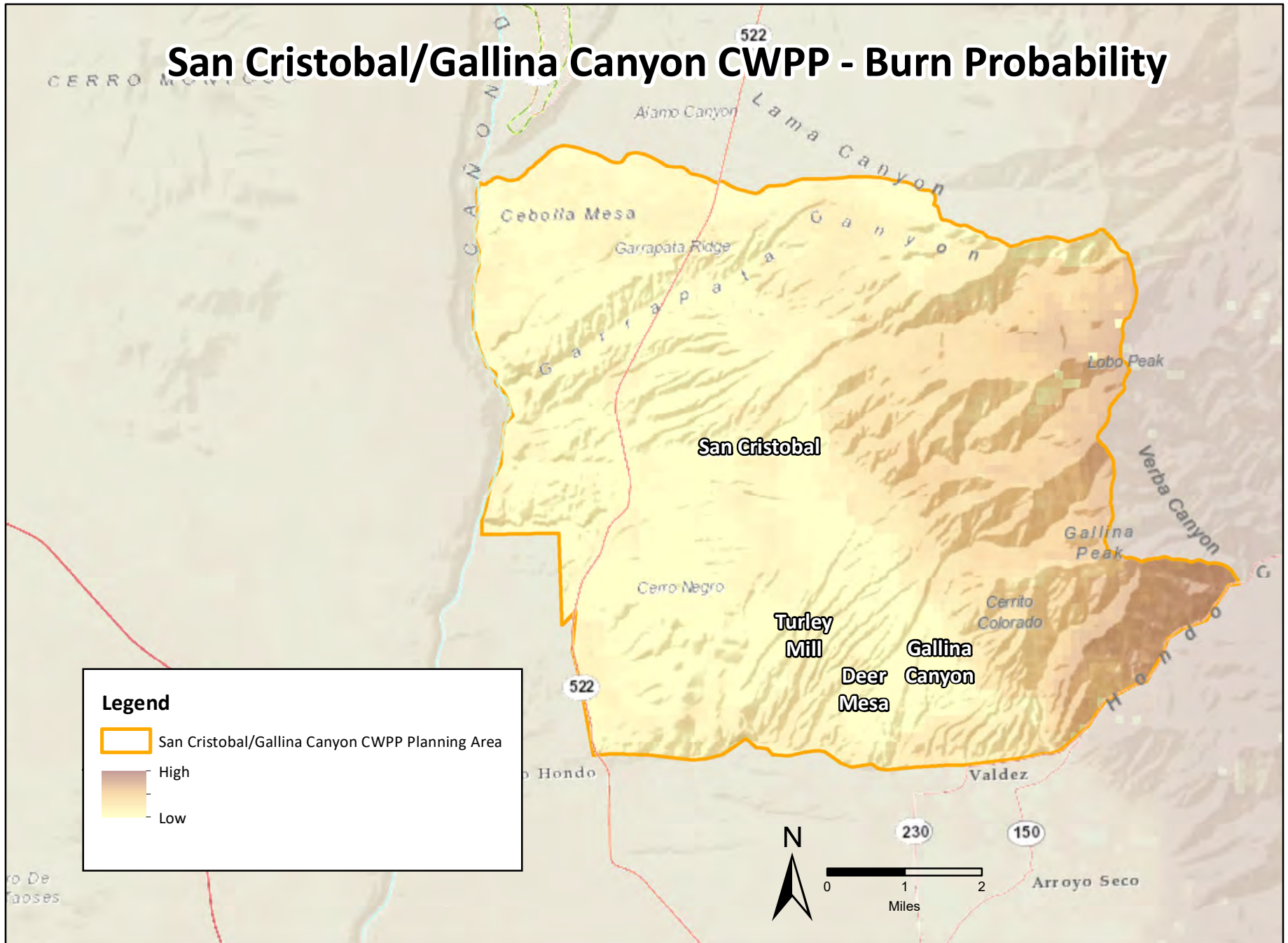
## Legend

-  CWPP Planning Area
- Dominant Vegetation Type**
-  Aspen
-  Big Sagebrush
-  Blue Grama
-  Deciduous Shrub
-  Juniper
-  Perennial Grass
-  Pinon-Juniper
-  Ponderosa Pine
-  Sparsely Vegetated
-  Spruce-Fir
-  Upper Deciduous-Conifer Mix
-  Upper Forb Mix



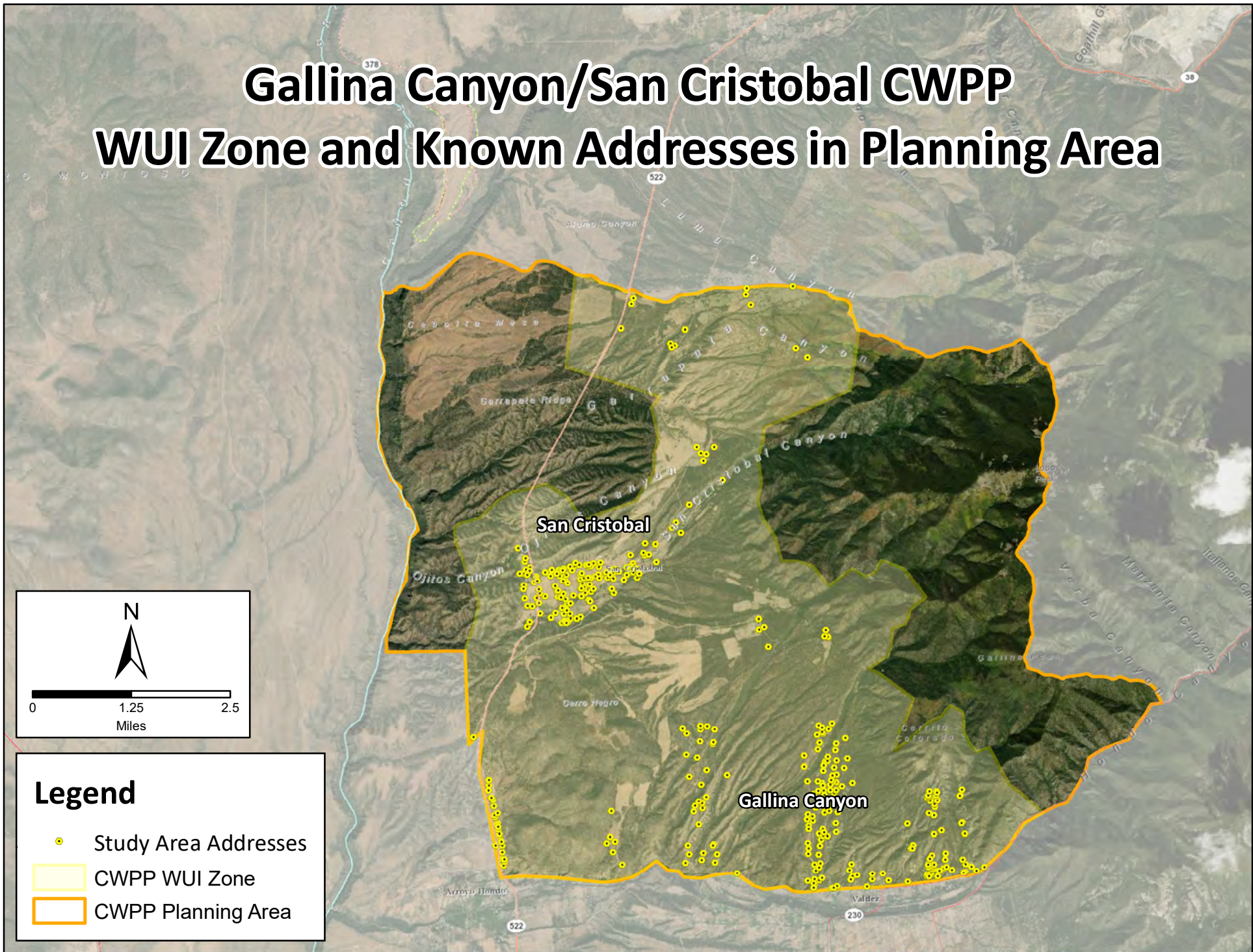


# San Cristobal/Gallina Canyon CWPP - Burn Probability



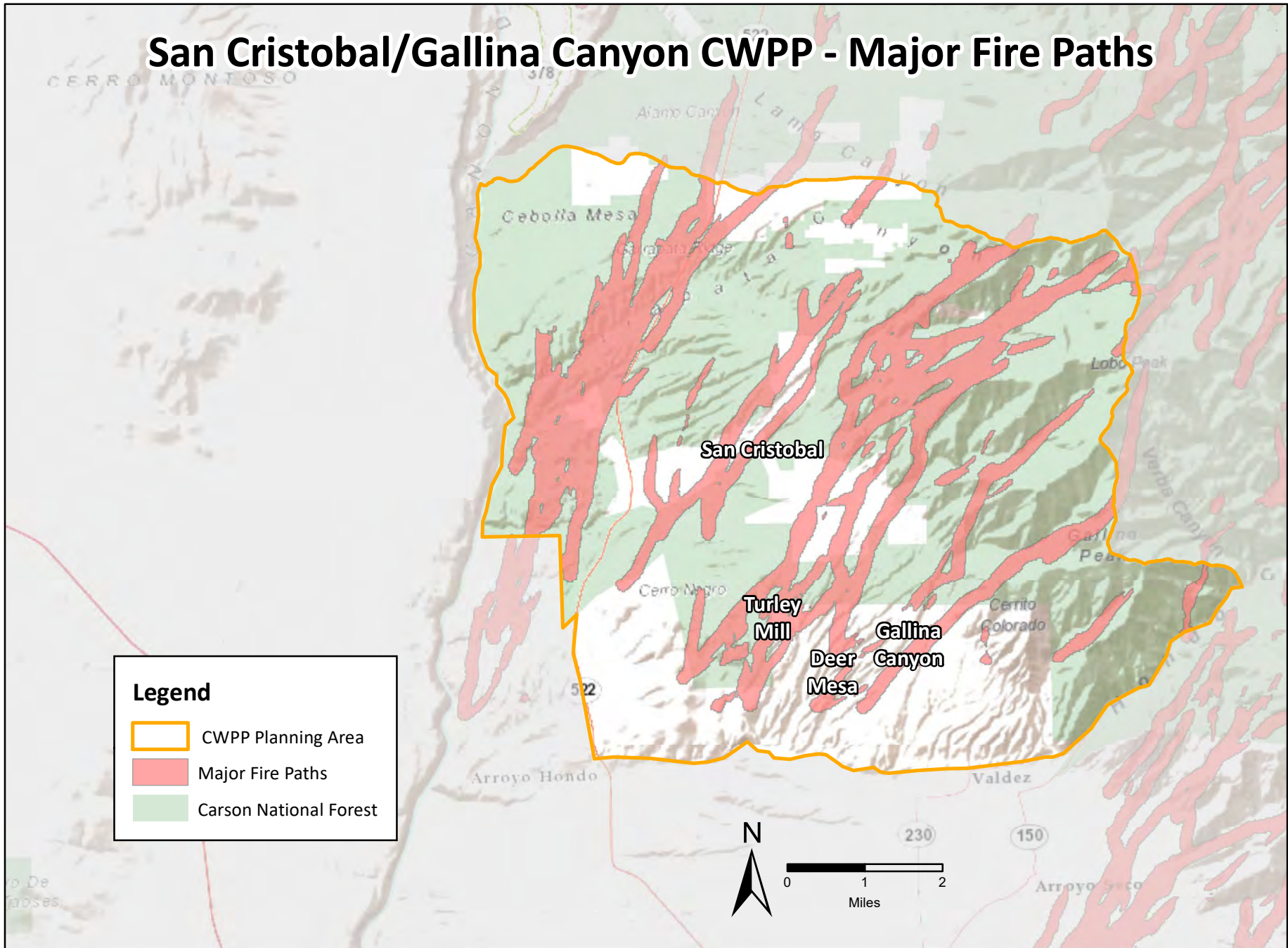


# Gallina Canyon/San Cristobal CWPP WUI Zone and Known Addresses in Planning Area

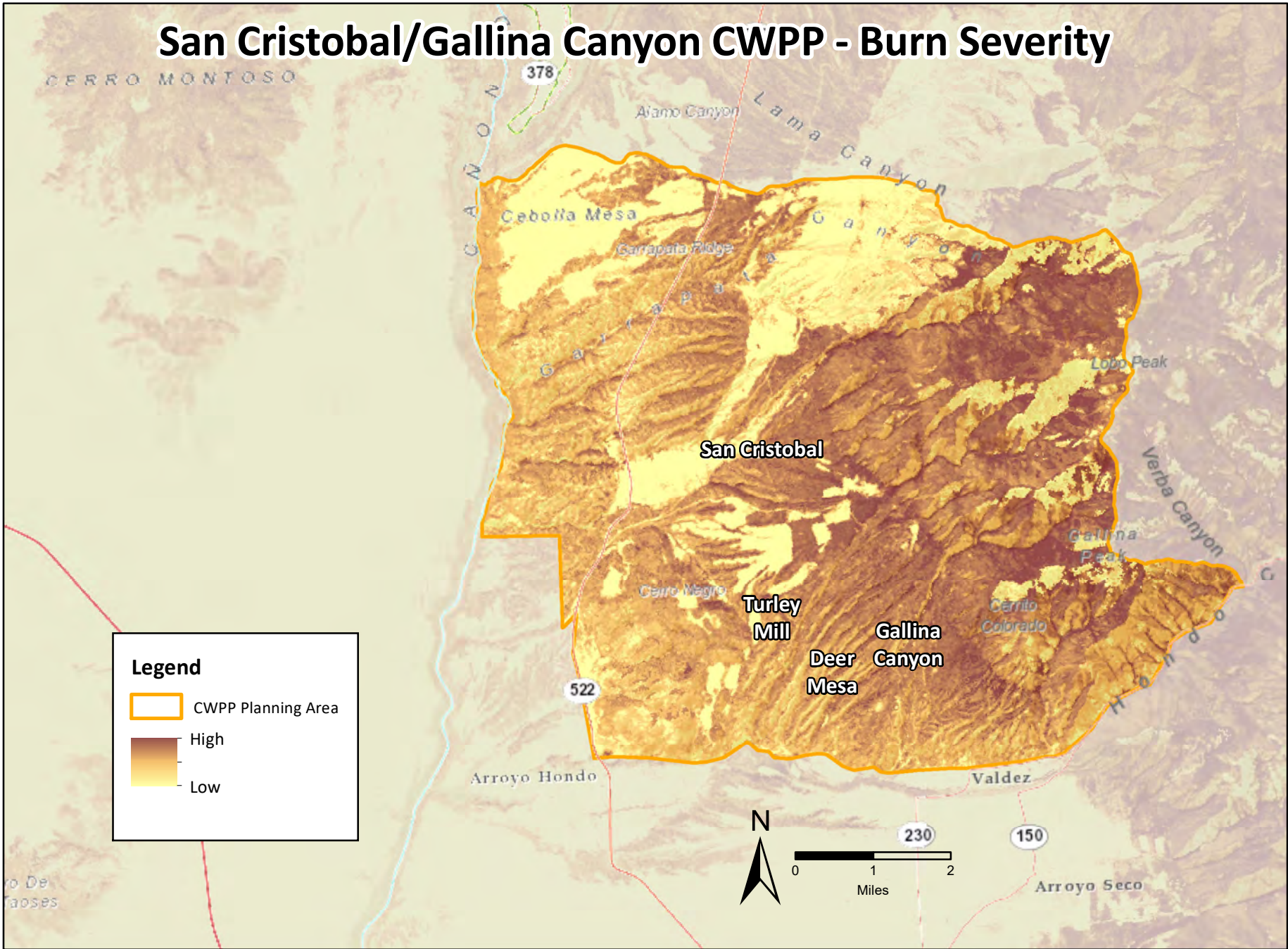




# San Cristobal/Gallina Canyon CWPP - Major Fire Paths

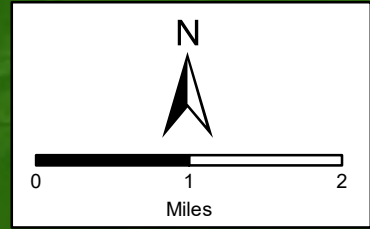
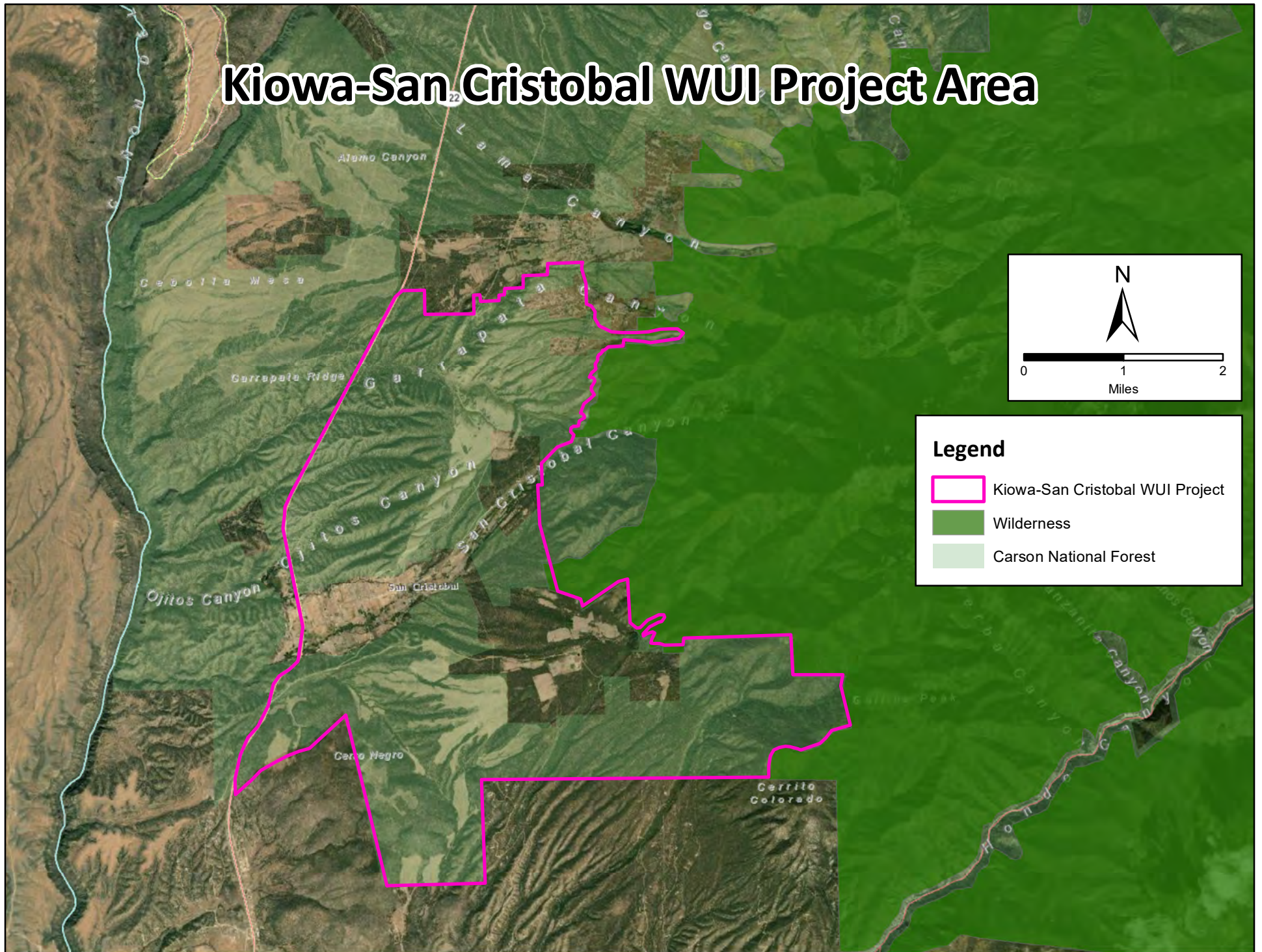


# San Cristobal/Gallina Canyon CWPP - Burn Severity








# Kiowa-San Cristobal WUI Project Area



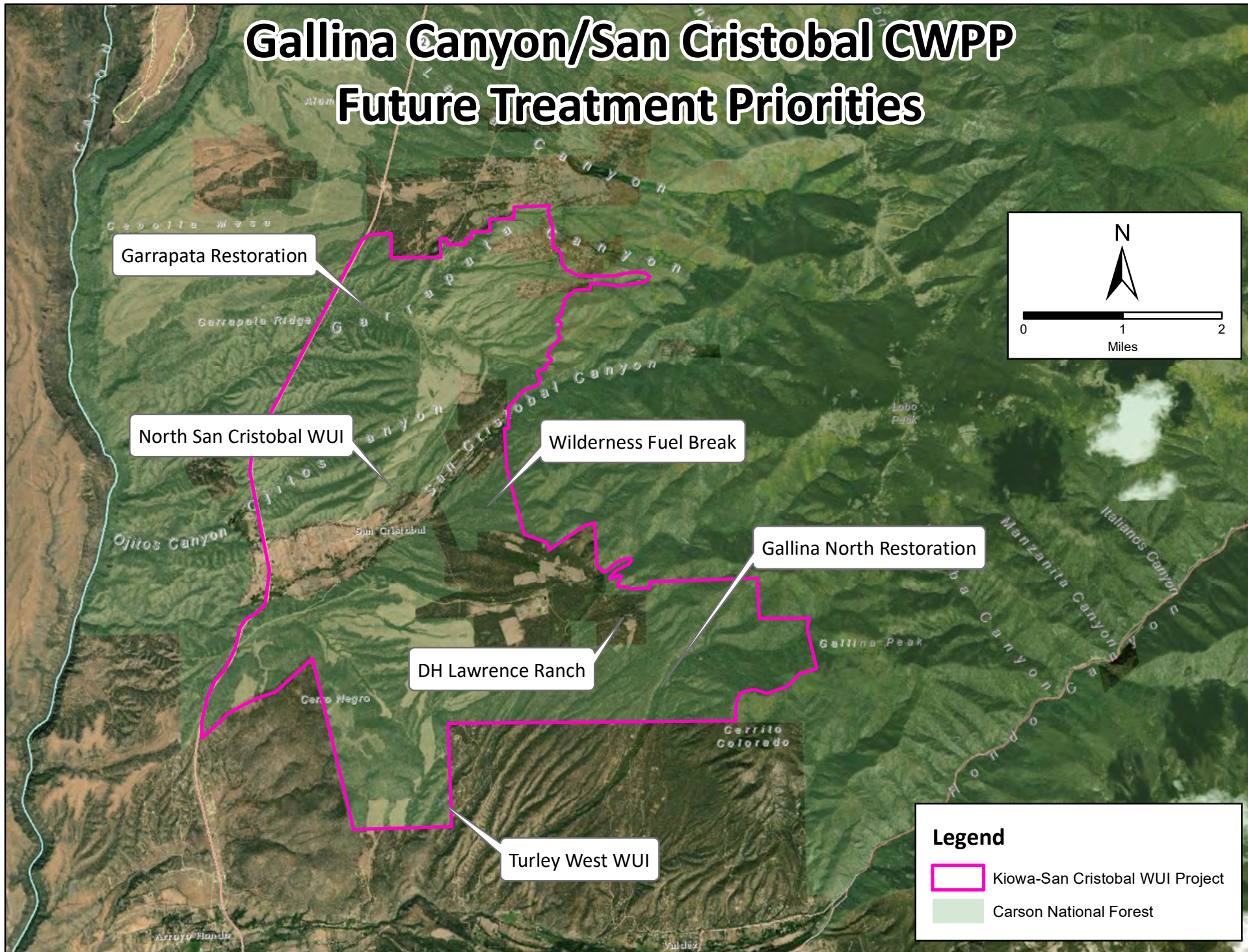
**Legend**

-  Kiowa-San Cristobal WUI Project
-  Wilderness
-  Carson National Forest



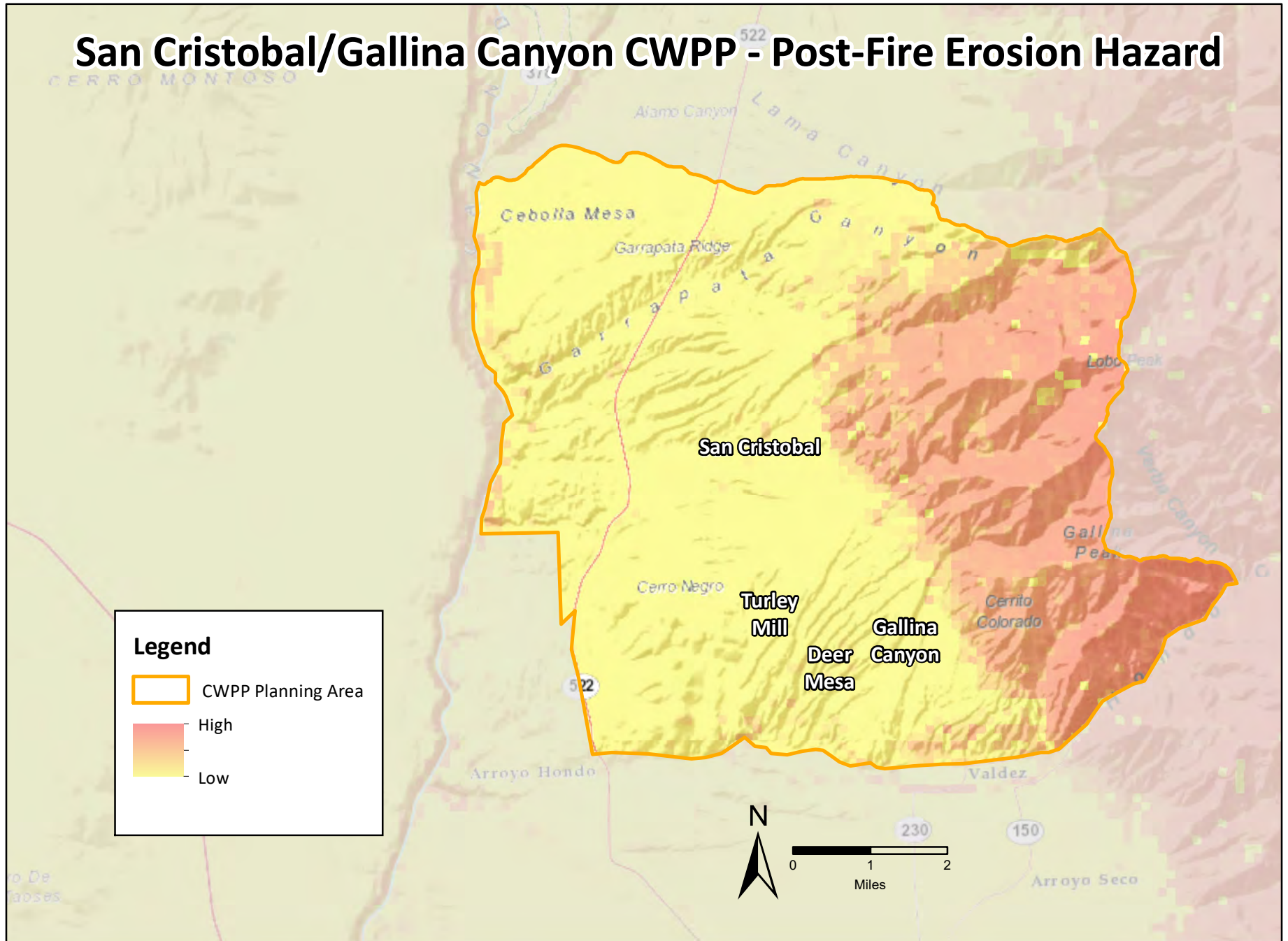
# Gallina Canyon/San Cristobal CWPP

## Future Treatment Priorities

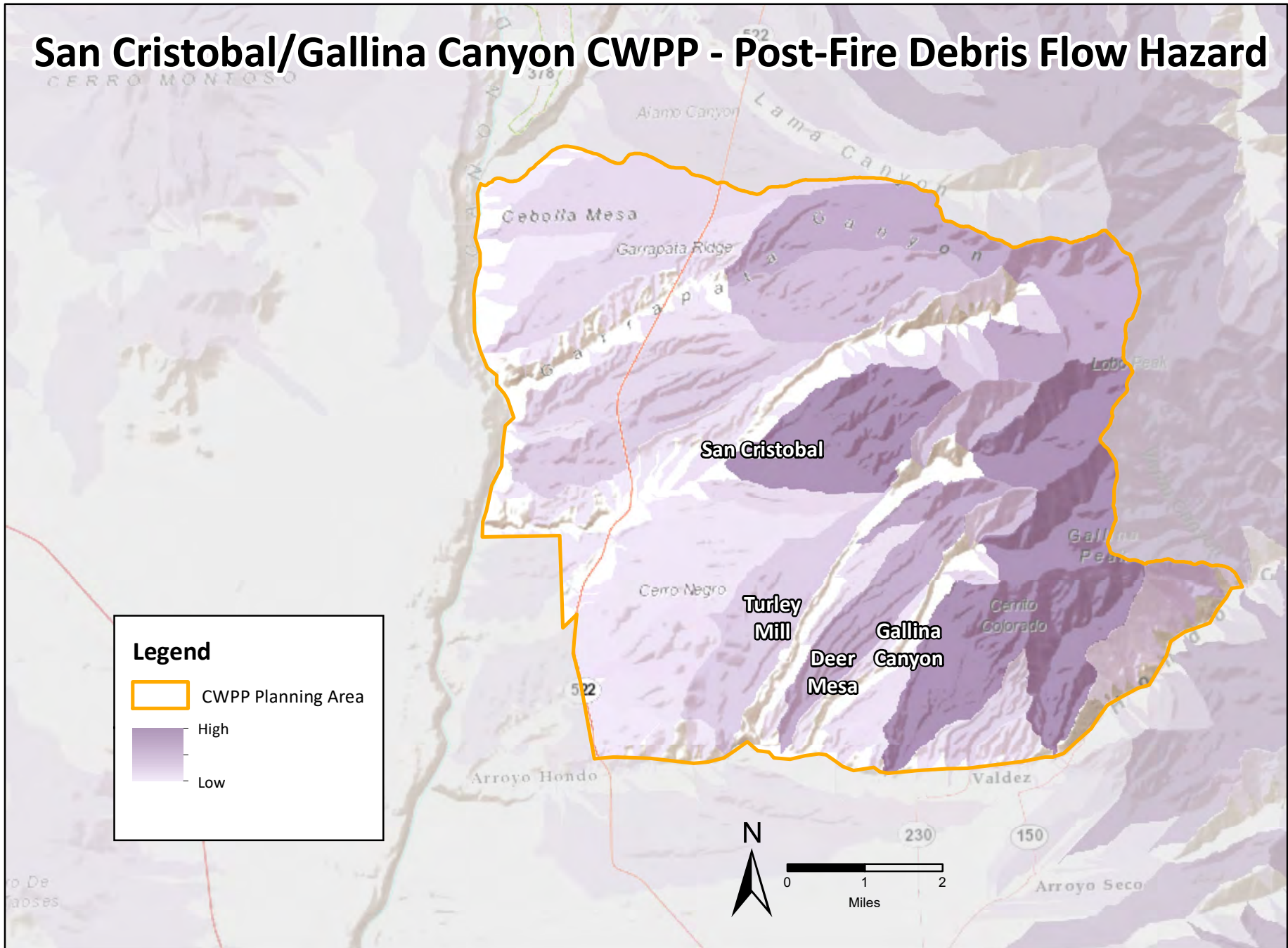




# San Cristobal/Gallina Canyon CWPP - Post-Fire Erosion Hazard

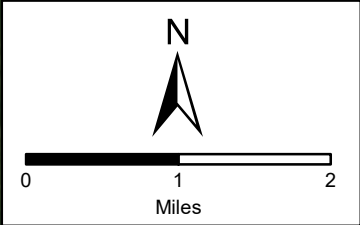
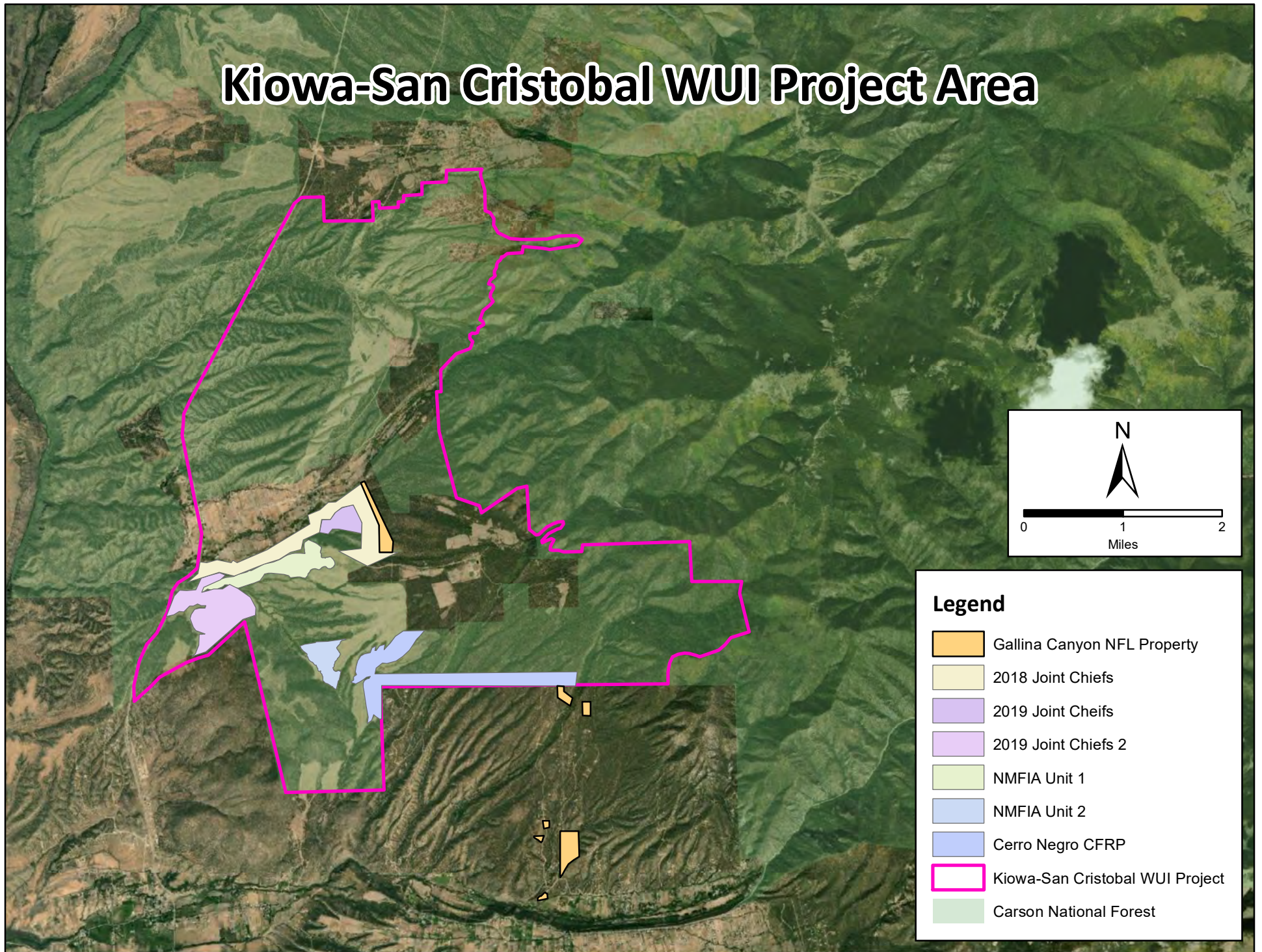


# San Cristobal/Gallina Canyon CWPP - Post-Fire Debris Flow Hazard














# Kiowa-San Cristobal WUI Project Area

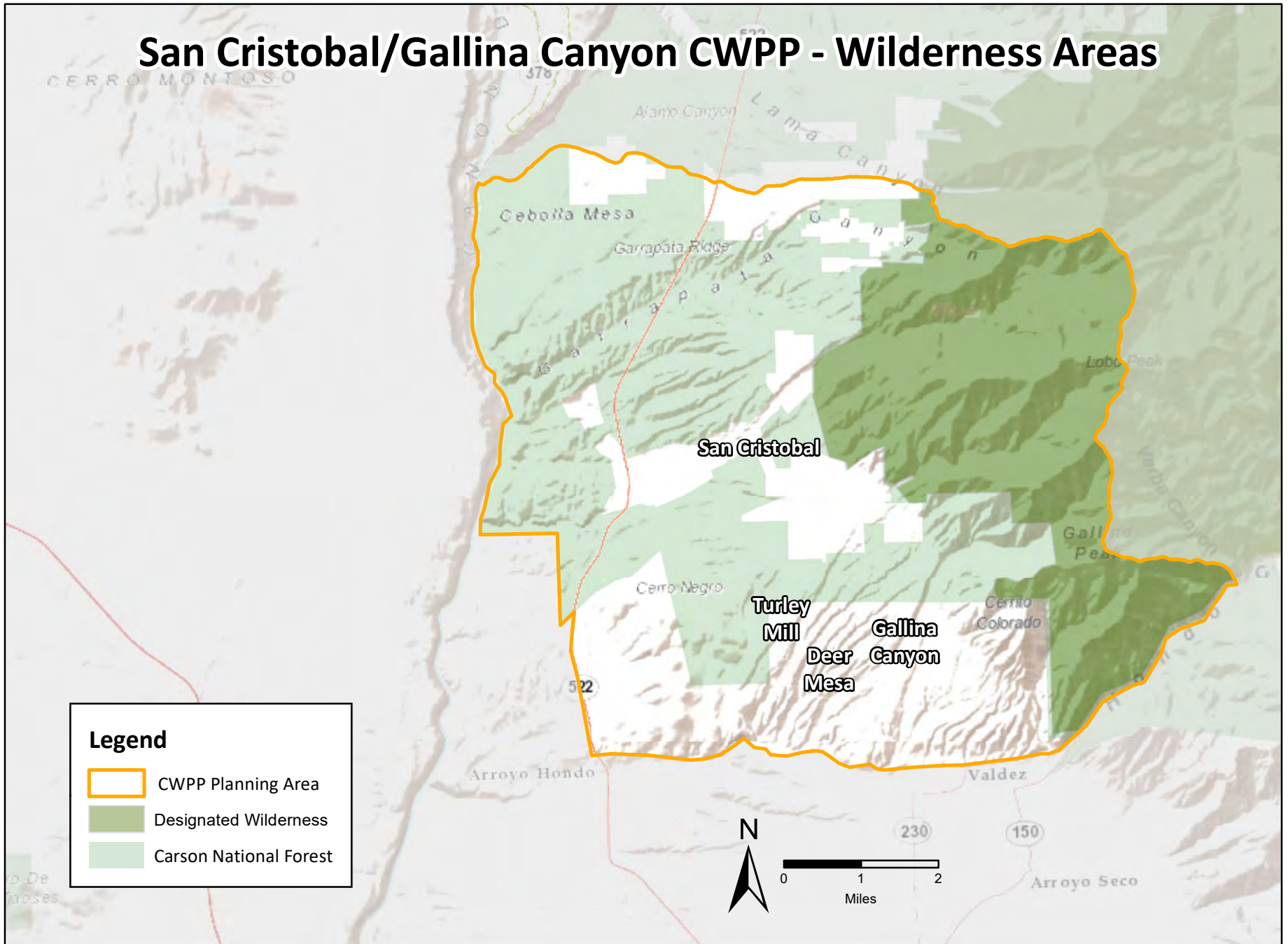


## Legend

-  Gallina Canyon NFL Property
-  2018 Joint Chiefs
-  2019 Joint Chiefs
-  2019 Joint Chiefs 2
-  NMFIA Unit 1
-  NMFIA Unit 2
-  Cerro Negro CFRP
-  Kiowa-San Cristobal WUI Project
-  Carson National Forest

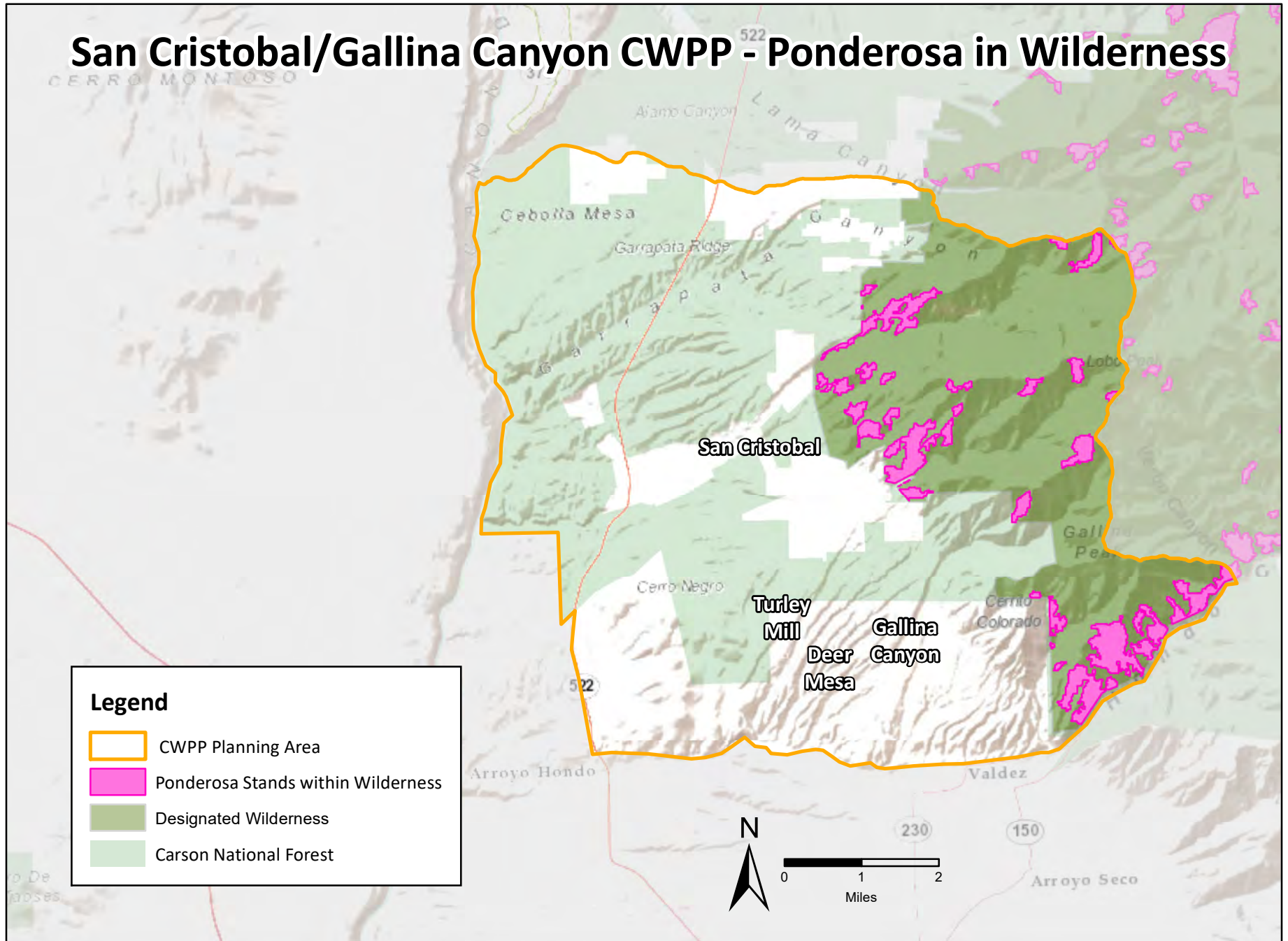


# San Cristobal/Gallina Canyon CWPP - Wilderness Areas



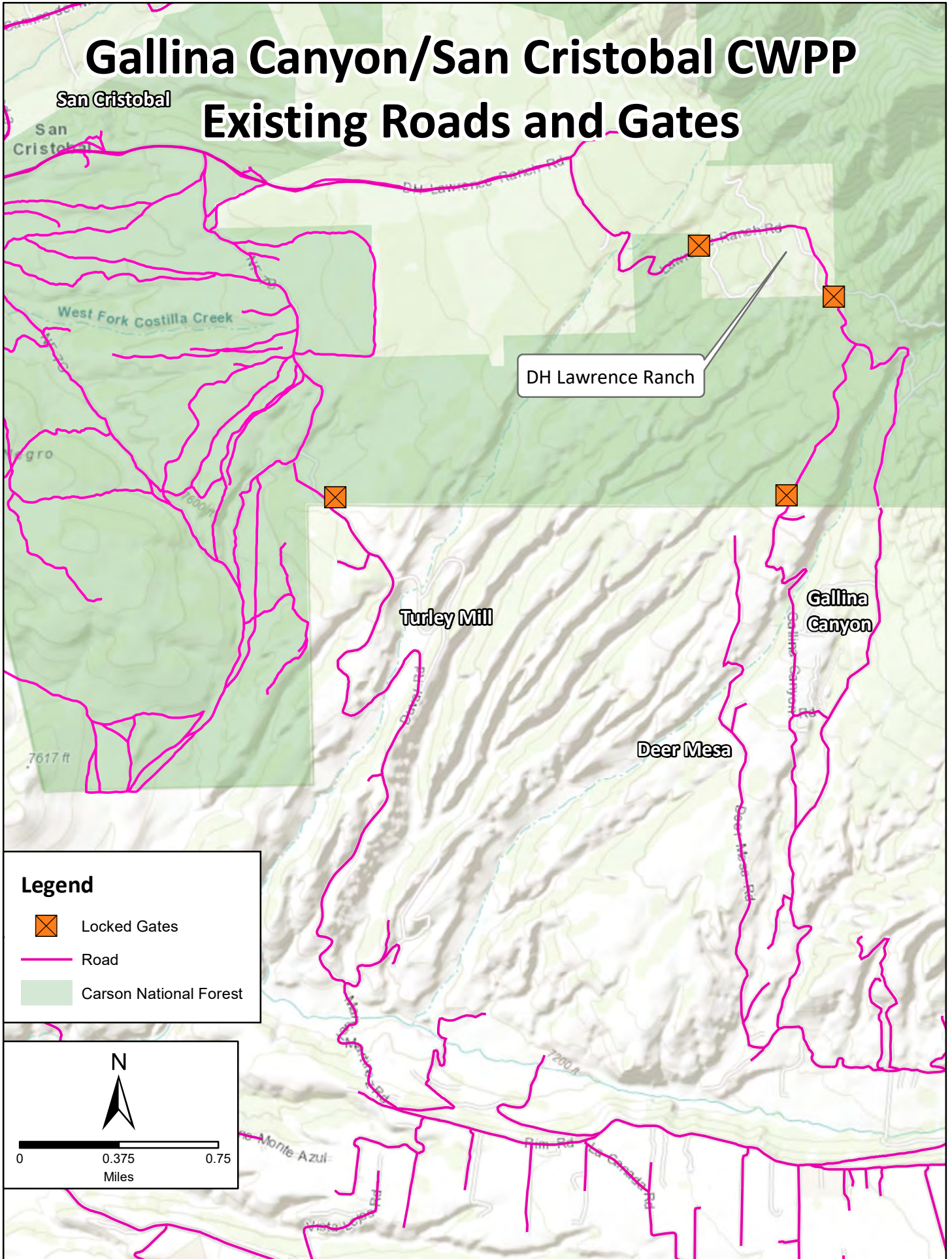


# San Cristobal/Gallina Canyon CWPP - Ponderosa in Wilderness



# Gallina Canyon/San Cristobal CWPP

## Existing Roads and Gates







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