



# COMMUNITY WILDFIRE PROTECTION PLAN



**FINAL DRAFT**

JULY 2016



**RESOLUTION 2016-310**

**ADOPTING THE VILLAGE OF TAOS SKI VALLEY  
COMMUNITY WILDFIRE PROTECTION PLAN**

**WHEREAS**, the Village of Taos Ski Valley is at considerable risk from the impacts of a devastating wildfire; and

**WHEREAS**, the Village Council recognizes the impacts a wildfire could have on the natural resources, people, property, and economy of the Village; and

**WHEREAS**, the Village Council understands that preparing and implementing a Community Wildfire Protection Plan is a critical step in anticipating and avoiding the possible impacts of a wildfire; and

**NOW, THEREFORE, BE IT RESOLVED**, that the Village Council adopts the Community Wildfire Protection Plan; and

**BE IT FURTHER RESOLVED**, that the Village Council directs the Firewise Board of Directors to work in collaboration with the Village staff, property owners, businesses, government agencies, and community organizations in implementing the objectives of the Community Wildfire Protection Plan.

**PASSED, ADOPTED AND APPROVED** this 14th day of June, 2016.

**THE VILLAGE OF TAOS SKI VALLEY**

Neal King  
Mayor

Attest:

Ann M. Wooldridge  
Village Clerk

Vote: For 4 Against 0



**Planning and Zoning Commission**

**Resolution 2016-309**

**ENDORISING THE COMMUNITY WILDFIRE PROTECTION PLAN  
AND ENCOURAING THE VILLAGE COUNCIL TO ADOPT THE COMMUNITY  
WILDFIRE PROTECTION PLAN**

**WHEREAS**, the Village of Taos Ski Valley is at considerable risk from the impacts of a devastating wildfire; and

**WHEREAS**, the Planning & Zoning Commission recognizes the impacts a wildfire could have on the natural resources, people, property, and economy of the Village; and

**WHEREAS**, the Planning & Zoning Commission understands that preparing and implementing a Community Wildfire Protection Plan (CWPP) is a critical step in anticipating and avoiding the possible impacts of a wildfire; and

**WHEREAS**, the Firewise Board of Directors endorsed the first draft of the CWPP on April 5, 2016 and encouraged the Planning & Zoning Commission to endorse the CWPP for approval by the Village Council; and

**NOW, BE IT RESOPLVED**, that the Planning & Zoning Commission endorses the CWPP and encourages the Village Council to adopt the CWPP.

Adopted by the Planning & Zoning Commission this 6<sup>th</sup> day of June, 2016.

Planning and Zoning Commission

Tom Wittman, Chair

ATTEST:

Amm M. Wooldidge  
Village Clerk

Vote: For 5 Against 0 Abstain 0

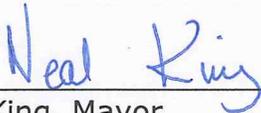
# APPROVALS & SIGNATURES

*The Healthy Forest Restoration Act requires that the Community Wildfire Protection Plan is approved by the Village Council, the Taos Ski Valley Volunteer Fire Department, and the New Mexico State Forestry Division.*

**The following representatives have reviewed and approve the Village of Taos Ski Valley Community Wildfire Protection Plan:**

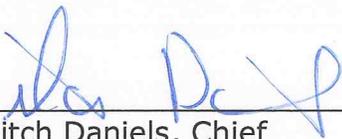
**BY:**

**VILLAGE OF TAOS SKI VALLEY:**



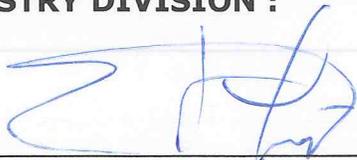
\_\_\_\_\_  
Neal King, Mayor

**VILLAGE OF TAOS SKI VALLEY VOLUNTEER FIRE DEPARTMENT:**



\_\_\_\_\_  
Mitch Daniels, Chief

**NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT  
FORESTRY DIVISION :**



\_\_\_\_\_  
Ernie Lopez, Cimarron District Forester

# **ACKNOWLEDGEMENTS**

**The Village of Taos Ski Valley and the members of the Firewise Board of Directors would like to thank the following individuals for their contributions to the CWPP:**

- *Ray Corral, US Forest Service, Questa Ranger District*
- *Laura McCarthy, The Nature Conservancy*
- *Steven Bassett, The Nature Conservancy*
- *Eytan Kasilovski, The Forest Guild*
- *Shannon Roemelling, Amigos Bravos*
- *Dawn Boulware, Taos Ski Valley, Inc.*
- *Ernie Lopez, NM State Forestry*

## **VILLAGE COUNCIL & MAYOR**

- *Neal King, Mayor*
- *Kathy Bennett*
- *Christof Brownell*
- *J. Christopher Stagg*
- *Thomas P. Wittman*

## **PLANNING & ZONING COMMISSION**

- *Thomas P. Wittman, Chair*
- *April Bender*
- *Henry Caldwell*
- *Richard Duffy*
- *Susan Nichols*
- *J. Christopher Stagg*
- *Jim Woodard*

## **Firewise Board of Directors**

- *Kathy Bennet, Chair*
- *Sheila Duffy*
- *April Bender*
- *Jim Woodard*
- *Roger Pattison*

## **VILLAGE STAFF**

- *Mark Fratrack, Village Administrator*
- *Matthew Foster, Planner (Principal Author)*
- *Anne Marie Wooldridge, Village Clerk*
- *Renee Romero, Administrative Assistant*

# **EXECUTIVE SUMMARY**

The Village of Taos Ski Valley (Village) Community Wildfire Protection Plan (CWPP) represents a strong commitment to protect the natural resources and built environment across the Upper Rio Hondo watershed. The CWPP is the result of a collaborative effort to bring together residents, property owners and business owners, elected and appointed officials, all levels of government, and community organizations to reduce the risks associated with a devastating forest fire and to contribute to a regional landscape planning process for forest fire protection watershed restoration.

The CWPP includes a series of objectives and maps that will implement the CWPP over the next five years. The CWPP was developed in conjunction with members of the Taos County CWPP Core Team to act as the local implementation element of the broader CWPPs prepared throughout Taos County and the Upper Rio Grande watershed.

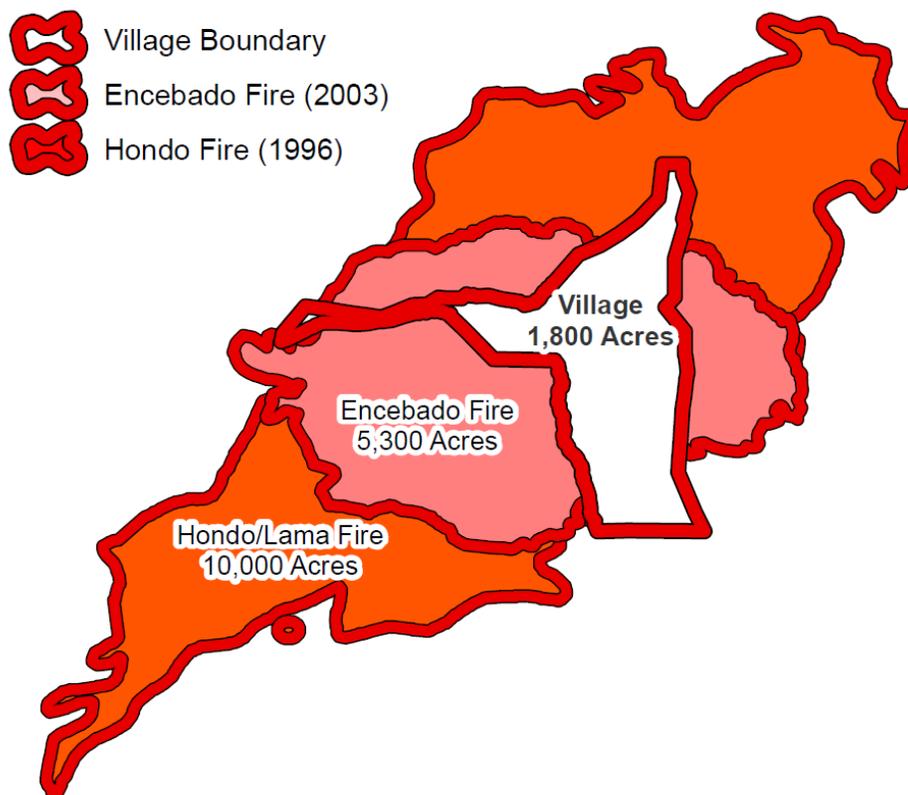
The CWPP recognizes the inherent connections between forest fire prevention, watershed health, and the benefits to human health, serenity, and survival. A healthy watershed that retains and purifies water, supports wildlife, regenerates vegetation, and essentially evolves in harmony with itself serve the Village population and downstream communities in many financial and qualitative ways. A healthy forest and watershed provide numerous opportunities for recreation, employment, and natural beauty.

Although adopting a CWPP makes the Village eligible for a variety of state and federal grants, attracting grant money is not why the Village prepared the CWPP. The Village prepared the CWPP to recognize the risks of a devastating forest fire, prepare for the impacts, set priorities, and collaborate with regional stakeholders who have a shared interest and who can share resources for the overall purpose of forest fire protection and watershed management.

The ultimate outcome of the CWPP can best be described with a hypothetical scenario. For example, if a fire started in the forest near the Village, the community's reaction would not be of panic or stress, but of confidence and security in knowing that the forest conditions can accommodate a fire, that the Village's Volunteer Fire Department is fully trained and equipped to respond, and that the infrastructure and buildings within the Village are safe because all properties have been treated for defensible space and the buildings are made of fire resistance materials. Water resources are protected, electrical lines are underground, and all of the residents and visitors have access to emergency information and evacuation protocols. Downstream land owners and water users are not concerned because they know the post-burn area emergency rehabilitation protocols are updated and the Village and regional partners have the resources they all need to restore the short-term negative impacts and protect the land and water from erosion and debris flow. The fire is understood not as a threat, but as a natural process consistent with a healthy forest.

# FIRE FOOTPRINTS

This illustration shows the relative size of the Village municipal boundary when superimposed on the fire footprints of the Encebado (2003) and Hondo/Lama (1996) fires. The footprint of the Encebado fire was nearly three times the area of the entire Village boundary. The Hondo/Lama fire was 5.5 times. Although forest fires are relatively infrequent in the forest types in the Upper Rio Hondo Watershed, the impacts to people, property, and environmental integrity of the Village would be disastrous for several generations.



In recognizing of the impacts of a devastating forest fire, the Village adopted the following goal for the CWPP:

*The people, property, and natural resources of the Upper Rio Hondo watershed Village are protected from the devastating impacts of forest fire.*

The CWPP is a critical step in accomplishing this goal.

# **INTRODUCTION**

The Village of Taos Ski Valley (Village) is at risk of a catastrophic wildfire. The Community Wildfire Protection Plan (CWPP) acknowledges these risks and outlines a specific plan of action to minimize the risks and protect the Village and its resources from the devastating impacts of a wildfire.

The CWPP is the result of a collaborative effort. It represents the long-term commitment to protect the community from a wildfire. Representatives from the Village worked closely with the Taos County 2016 CWPP Core Team and numerous stakeholders who have a direct interest in the health of the forest and the Upper Rio Hondo watershed. The role of each stakeholder is identified in this CWPP. The Village CWPP is intended to act as the detailed implementation plan of the County's CWPP. Accordingly, it describes the risks, resources, and specific objectives that are specific to the Village. The Village Planner worked with the Firewise Board of Directors in developing the first and second drafts and presenting them to the community for feedback. The Firewise Board endorsed the first draft on April 5, 2016. The Commission approved Resolution 2016-309 at their regular meeting held on June 6, 2016. This resolution endorsed the CWPP and encourage the Village Council to formally adopt the CWPP. The Village Council adopted the CWPP on June 14, 2016 by Resolution 2016-310. The Chief of the Village's Volunteer Fire Department approved the plan on June 6, 2016. Finally, the New Mexico Fire Planning Task Force approved the plan on **XXXX, 2016**.

The CWPP will be used to attract financial and technical resources and to mobilize the community to implement the objectives of the CWPP. It will be distributed to property owners to inform them about the availability of technical resources and financial opportunities to create defensible space, evacuate the Village in the event of a fire, and inform them about the variety of public education events that are conducted throughout the year.

"Community Wildfire Protection Plans (CWPPs) are authorized and defined in Title I of the Healthy Forests Restoration Act (HFRA) passed by Congress on Nov. 21, 2003, and signed into law by Pres. George Bush on Dec. 3, 2003. The Healthy Forests Restoration Act places renewed emphasis on community planning by extending a variety of benefits to communities that have a CWPP in place. Critical among these benefits is the option of establishing a localized definition and boundary for the wildland-urban interface (WUI) and the opportunity to help shape fuels treatment priorities for surrounding federal and non-federal lands."

**- CRITICAL COMMUNITY WATERSHED WILDFIRE PROTECTION PLANS (CWP)<sup>2</sup> - GUIDELINES FOR IMPLEMENTATION - P 1.**

See the **Vicinity Map (Map #1)** for the location of the Village compared to the surrounding Wilderness Areas and communities.

## **SCOPE OF THE CWPP**

The geographic scope of the CWPP includes the Upper Rio Hondo watershed and a 100-foot buffer on both sides of state highway 150 from the Village boundaries to Valdez. The Upper Rio Hondo watershed includes mostly federally-designated Wilderness Areas with fewer options for proactive forest fuel management. The scope of the CWPP (with specific regard to forest fuel treatments) is the non-wilderness area (the 100 foot buffer of the Hondo-Columbine and Wheeler Peak Wilderness Areas) of the Upper Rio Hondo watershed and along New Mexico State Highway 150 to Valdez. The state highway is included because of the private properties and public campgrounds located along the highway. The **Upper Rio Hondo Watershed & Wildland Urban Interface Map (Map #2)** illustrates the geographic scope of the CWPP.

The Village cannot protect the entire region from a wildfire all by itself. The scope of collaborators reaches across Taos County and beyond to ensure that the recommendations and opinions of those organizations and government agencies whose mission is to protect the watershed and forest are represented in the CWPP.

The scope of time it will take to completely implement the objectives of the CWPP is uncertain. Implementing the CWPP depends on the sustained level of community support and education, changing climate conditions, the availability of funding, the amount of fuel treatments that can be completed, and the availability of new science that might change priorities or proposed locations and types of forest fuel treatments. The Village recognizes that not all of the objectives will be completed within a five year period; however, the Village will update the CWPP every five years to re-evaluate the priorities, assess the progress, and consider new priorities and additional objectives.

The scope addresses the requirements of the Healthy Forests Restoration Act. The minimum requirements for a CWPP as described in the HFRA are:

- 1. Collaboration:** A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties.
- 2. Prioritized Fuel Reduction:** A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.
- 3. Treatment of Structural Ignitability:** A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures by wildfires throughout the area addressed by the plan.

The Firewise Board, the Planning & Zoning Commission, and the Village Council believe the CWPP meets the minimum requirements of the HFRA.

# **PURPOSES OF THE PLAN**

There are many purposes of the CWPP:

## **1. To protect lives.**

Public education is critical in wildfire protection planning. Individuals are responsible for protecting their property and learning about the risks of living in a forest. Individuals and families should live with a sense of security but not be complacent or assume that the government is responsible for protecting them and their families. Nonetheless, government agencies, neighborhood associations, and community organizations should provide resources about the most effective ways to protect lives from structure fires and wildfires.

## **2. To protect property.**

A wildfire can start in the forest then creep into the community. Buildings and infrastructure are at risk if the fire is not managed properly. Alternatively, a wildfire can start within a structure, spread to adjacent properties, and creep into the forest. The impacts could be devastating for families and businesses and for the 279 structures that are within the Village.

**The traditional village of Taos Pueblo, a UNESCO World Heritage Site, was threatened by a wildfire during the Encebado fire in 2003.**

**The Cerro Grande occurred in May 2000. Over 400 families in Los Alamos lost their homes in the resulting 48,000-acre fire. Structures at Los Alamos National Laboratory were also destroyed or damaged. Amazingly, there was no loss of human life.** – Wikipedia. 2016.

There have been severe structure fires in the Village in the recent past. Prior to 2001 (date uncertain) one residence located on Phoenix Switchback was burned to the foundation when a friend of the homeowner left a paper bag of ashes from the fireplace on the front porch. Most notable of all structure fires within the Village is the fire that destroyed the Edelweiss Lodge in 1996. The fire ignited due to creosote build-up in a chimney. In February 2007, another structure fire occurred at the Wheeler Peak Condos when snow pack on the roof shed onto the gas meter and the gas line of the adjacent building, causing the gas line to fracture. Gas migrated through snow pack, through a penetration in the wall, then into the boiler room and ignited. The fire damaged the interior wall. The sprinkler line inside the building was then discovered to be faulty as well. The Pepper residence was completely destroyed in March, 2010 due to a gas leak which caused an explosion. Fortunately it was a wet winter with accumulated snow pack near the building; otherwise, the fire could have spread to the adjacent forest.

### **3. To identify and prioritize objectives.**

An objective describes a specific and measurable action to be taken. It outlines a sequence of actions that must be taken to fulfill the vision. The objectives are listed in priority order. Each objective identifies the year it will be completed, the party or parties who are responsible for implementing the objective, the resources that are needed, and the specific deliverable or other measure of success. The deliverable or measure of success indicates that objective has been completed.

### **4. To protect natural resources and enhance watershed health.**

Wildfires play a critical role in protecting and regenerating the natural cycles of a watershed. A healthy forest and watershed will sustain fish and wildlife habitat, protect water and air quality, mitigate floods, preserve soils, control pests, and sequester carbon emissions. Protecting the watershed from a devastating wildfire is essential for preserving drinking water and snow-making. For example, one hundred percent of the Village's drinking water supply is provided by an underground infiltration gallery fed by the Phoenix Spring. Additionally, TSV, Inc. gets their water for snow-making from the Beaver Pond and the along the Rio Hondo at the base of the Village near the Warming Hut. Ash and debris following a wildfire would seriously impair these water resources. Excessive smoke would cause unwanted pollution and health impacts. A wildfire under the current overgrown conditions could destroy wildlife and their habitat as well as the natural vegetation.

### **5. To attract investments.**

The Village does not have the financial resources to protect the entire community from wildfire by itself. The Village will be eligible for federal and state grants and more competitive in requesting private foundation grants having adopted a CWPP.

"CWPPs are a requirement to access grant funding sources such as the National Fire Plan, and many state and federal sources for wildfire mitigation activities require or give priority to communities covered by CWPPs or projects identified in CWPPs."

- Evaluating the Effectiveness of Wildfire Mitigation Activities in the Wildland-Urban Interface. p.12.

Completing a CWPP that meets the requirements of the HFRA enables the Village to receive priority treatment for federal fuel reduction projects.

### **6. To encourage collaboration.**

Not only does the Village lack the financial resources needed to fully implement the CWPP, it does not have the full technical or financial capacity in wildfire management, silviculture, or watershed planning. The Department of Public Safety must rely on outside agencies to collaborate with each other in the event of a landscape-scale wildfire. The fact that the Village is surrounded by Forest Service

Wilderness requires collaboration with the Forest Service. It is in everyone's best interest, including Taos Ski Valley, Inc. and other private developers, to collaborate with the Village, community organizations such as The Nature Conservancy, and state agencies to protect the Village from wildfire. A very practical reason to collaborate is to gain access to funding. The CWPP must be approved by the New Mexico Forestry and the New Mexico Fires Planning Task Force in order to be eligible for a variety of financial incentives.

## **7. To identify and prioritize specific forest fuel treatments.**

One of the main purposes of the CWPP according to the Healthy Forests Restoration Act is to prioritize areas for hazardous fuel reduction treatments. The Zone Fire Management Officer from the Questa Ranger District recommended locations and priorities for forest fuel treatments. These recommendations are illustrated on the **Prioritized Fuel Treatments (Map #3)**.

## **8. To be consistent with the Village Comprehensive Plan, the Taos County CWPP, the State Forestry Assessment, Firewise Action Plans, and the Rio Grande Watershed Coalition Landscape Restoration Strategy.**

- **Village Comprehensive Plan**

The Natural Hazards Element of the Village Comprehensive Plan calls for the completion of the CWPP. The overall goal of the Natural Hazards Element is:

**“The Village is adapted to natural hazards and prepared to mitigate the potential impacts.”**

The Natural Hazards Element also includes a set of policies and objectives designed fulfill the goal over the next twenty years.

### POLICIES:

1. The Village will collaborate with all levels of government and community organizations, including The Nature Conservancy, Taos County CWPP Core Team, the US Forest Service, and New Mexico Forestry, and the Firewise Board in completing the Village Community Wildfire Protection Plan.
2. The Village will support the Firewise Board in promoting Education Day and other special events associated with wildfire prevention and education.
3. The Village will make every effort to provide educational materials and financial incentives to the community prior to considering ordinances that mandate wildfire protection measures on private property. The Village will lead by example with regard to fire prevention and protection efforts.

## OBJECTIVES:

### 1. Adopt a Community Wildfire Protection Plan

The CWPP will provide specific strategies and objectives for government agencies, community organizations, and landowners about the types and specific locations of treatments necessary to reduce wildfire hazards within the upper Rio Hondo watershed. It will also include specific recommendations for public education, improving the capacity of the Village's Public Safety and Volunteer Fire Departments. The CWPP will be consistent with the Taos County CWPP update and the Landscape Restoration Strategy described by the Taos Valley Watershed Coalition.

### 2. Implement Forest Treatments

The Village will work with the US Forest Service, private property owners, TSV Inc., State Forestry, and community organizations in funding the recommended forest treatments within the upper Rio Hondo watershed. Potential funding sources include the US Forest Service Non Federal Lands grants, Community Forestry Restoration Projects, and the Rio Grande Water Fund.

### 3. Adopt the 2012 International Code Council Wildland-Urban Interface Code.

The Village Council adopted the 2003 code; however, adopting the 2013 code will improve the fire prevention requirements for new construction.

The Village must consider fire protection and access for emergency vehicles in the design and construction of new infrastructure. Roads should be wide enough with the minimal slope possible to provide adequate access for emergency vehicles; road signage, including street addresses, should be clear and visible at all times and during all seasons; fire hydrants should be located for easy access and clear visibility; fire lanes must be clearly marked and signed; overhead power lines should be buried.

The Roadway Improvements Element, the Utility Improvements Element, and the Community Services Element of the Village Comprehensive Plan identify specific infrastructure projects and programs that benefit fire protection and emergency response capabilities.

- **Taos County CWPP**

The Taos County Board of Commissioners adopted the Taos County CWPP in 2009 and updated it in 2016. The 2009 CWPP rated the Village as a MEDUIM risk, but the 2016 ranks the Village as a HIGH risk. The Taos County CWPP does not identify the conditions or criteria that distinguish between a high, medium, or low risk rating. The Village appears on the Taos Soil and Water Conservation District and Rocky Mountain Youth Corps list of “Wildland Urban Interface Treatments & Defensible Space Fuels Treatment Projects” and is included in the assessment of Volunteer Fire Department Wildlands Capabilities.

- **2013 State Forestry Assessment**

The Village requested assistance for the New Mexico Forestry Division in 2013 to assess the “hazardous fuels treatment priorities on a landscape scale.” It proposed mitigation measures to reduce the “threat of wildfire damage to property, life, and the land.” Much of the information was derived from the Taos County 2009 CWPP.

“The majority of the forested portions of the property contain Spruce-Fir and Mesic Mixed Conifer. These forest types typically are located in more remote and steep-sloped areas and have a fire regime that is characterized by very infrequent, high-intensity crown fire. In general, treatments are not recommended in these types of vegetation unless they are implemented to protect human structure. Forest treatment around buildings and along roads would consist of heavy thinning, including canopy and some pruning. Heavy thinning that would include mature timber removal (and usage) may have to be done in stages since spruce and fir are susceptible to wind-throw (sudden canopy openings may result in trees being blown over).”

The Assessment includes a “Risk Assessment” based on a point system and several criteria. **The Village was rated with 103 points, resulting in a “high” hazard community ranking.** The most notable “observations and recommendations” of the Assessment were:

1. develop other ingress and egress routes to and from VTSV,
2. widen all proposed evacuation routes out of VTSV,
3. maintain main road to accommodate fire service responders to house fires in all weather conditions,
4. develop turn arounds for fire service equipment,
5. maintain signage for emergency responders,
6. develop evacuation routes and post signs accordingly,
7. conduct and maintain defensible space treatments and forest management treatments,
8. educate the property owners on defensible space,
9. provide use of chipper days,
10. fireside construction on all new structures,
11. bury electric lines.

The assessment also recommended that all forested area within the Village WUI should be thinned to reduce the canopy density to a level that will not support a crown fire.

The Assessment resulted in the Village moving forward in requesting designation as a Firewise USA community.

- **Firewise Action Plans**

At the recommendation of the 2013 State Forestry Assessment, the Village applied for the Firewise Communities / USA status. One of the prerequisites of applying for the recognitions was the development of a Firewise Action Plan.

As a result of receiving the Firewise Communities / USA recognition, the Village Firewise Board is committed to four minimum requirements:

1. Maintain a Firewise Community Program and track its progress or status,
2. Invest a minimum of \$2.00 annually per capita in its Firewise activities,
3. Observe a Firewise Community / USE day each year that is dedicated to a local Firewise project,
4. Submit an annual report to Firewise Communities / USA.

The Village Firewise Board made this commitment and was designated as a Firewise USA community on December 2014.

The 2016 Firewise Action Plan summarizes the history and background of the Firewise Board, outlines previous accomplishments, and identifies several projects for 2016. The Action Plan calls for GIS mapping of properties with adequate (or inadequate) defensible space, multiple mass mailings to educate the community about defensible space and to share recent success stories, a series of "Firewise Education Days", consideration of an ordinance to mandate thinning, ongoing participation in regional meetings and activities, and purchasing additional sirens. The Action Plan also calls for a Community Wildfire Protection Plan (CWPP) specific to the needs, risks, and opportunities of the Village.

- **Rio Grande Water Fund & Taos Valley Watershed Coalition Landscape Restoration Strategy**

The Landscape Restoration Strategy (LRS) was developed over seven months during 2014-2015 by the Taos Valley Watershed Coalition. The Coalition developed several strategies to identify the most suitable forest treatments across the Rio Grande watershed under certain forest conditions. The Coalition worked together to develop a list of priority areas for future forest treatments and to seek funding for future planning, environmental clearances under the National Environmental Policy Act, and for forest thinning projects. The strategy for treating the forest within the Upper Rio Hondo watershed is to "integrate the natural distribution of rocky ridges, talus slopes, and other landscape features as anchor points for breaking up fuel continuity." Aspen management is a primary focus of the landscape restoration strategy and the recommended fuel treatments. This strategy is applied "on the ground" and illustrated in the **Upper Rio Hondo Forest Fuel Treatments Map**

**(Map #3).** Aspen are more resilient to wildfire. The crux of the landscape restoration strategy is to preserve Aspen stands and use them to direct fire where it is likely to have fewer impacts.

***"The Coalition collaboratively decided that the Rio Hondo is a priority for restoration, but a secondary project on a different timeframe from Pueblo Ridge and El Salto, and with possible funding contributed by Taos Ski Valley, Inc. and other sources."*** – Landscape Restoration Strategy. Taos Valley Watershed Coalition. 2015.

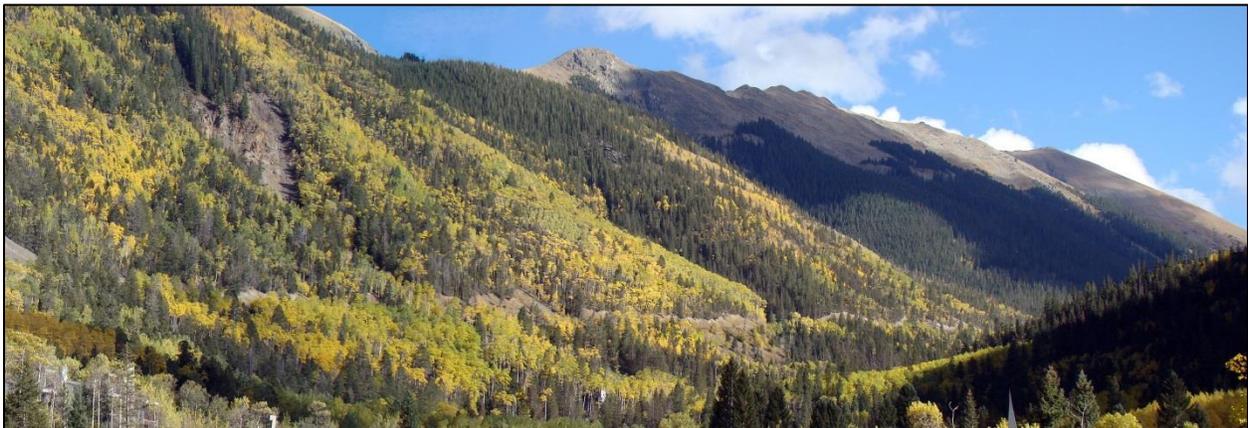
- **To implement existing ordinances and regulations adopted by the Village Council.**

The Village's zoning and subdivision ordinances regulate several types of development activities that can reduce the risk of a structure fire and a wildfire. These regulations include density, set-backs, architecture, landscaping and terrain management, emergency access, and utility improvements. The building codes regulate construction for fire protection, emergency ingress and egress and a variety of building safety requirements to protect the community from fire and other hazards. When existing ordinances are not adequate or out of date, the CWPP recommends amendments to reduce the risks of fire.

# **FOREST CONDITIONS IN THE WATERSHED**

The existing conditions of the forest within the Upper Rio Hondo watershed illustrate a forest at **high risk of a wildfire**. Most of the forest surrounding the Village consists of spruce fir (fire regime V) or mixed conifer (fire regime III). The tree species consist of dry mixed conifer (a combination of ponderosa pine, Douglas fir and white fir, and Engleman spruce) that transition to fir, spruce, and aspen at higher elevations. The landscape is dominated by stands of Aspen with an intermix of clumps of conifer and different seral stages. This type of forest has a long fire return interval of 200 years or more. Although a wildfire occurs infrequently, they are severe and damaging to the watershed, replacing the entire stand of trees as it burns across the landscape. The long interval between fires creates a higher amount of fuels and “trash” that burns into the tree canopy.

The risk of a catastrophic wildfire will increase as the forest becomes drier and hotter at higher elevations. Increased temperatures will cause dry soils and increase tree mortality. Trees and other vegetation will adapt to higher and drier elevations and take over other species that can no longer adapt to hotter temperatures and drier soils. This process will increase at a higher pace if a fire occurs.



**Aspen stands and rock outcroppings create natural fire breaks across the Upper Rio Hondo Watershed.**

**Although the mixed-conifer and spruce fir forest types in the Upper Hondo watershed indicate very infrequent fire intervals, the type of fire when it occurs is expected to be a high intensity crown fire due to the steep slopes, high fuel densities, high wind velocities, and the likelihood of a fire igniting at lower elevations that are more prone to a wildfire.**

## **The Landscape Restoration Strategy prepared by the Taos Valley Watershed Coalition described the forest of the Rio Hondo Corridor:**

"The Rio Hondo runs 8 miles west from Taos Ski Valley, along State Highway 150 to Valdez, within a narrow corridor of the Carson National Forest that is bordered on the south by the Wheeler Wilderness and on the north by the recently designated Hondo-Columbine Wilderness. The ecological response unit and departure maps show that the forest is ponderosa pine and dry-mixed conifer at lower elevations, transitioning to wet-mixed conifer and spruce-fir, with an aspen component in both forest types, as the elevation increases. Natural rocky ridges and talus slopes offer breaks in the forest continuity, as do the existing patches of aspen, ranging in size from small openings to stringers running in a SW-NE direction. The Rio Hondo is also a popular fishing area and has three designated campgrounds. Some of the tributary streams have small existing populations of Rio Grande cutthroat trout and will be targeted for reintroduction after fish barriers are constructed. West and north from the mouth of Rio Hondo is the Kiowa-San Cristóbal restoration area, under NEPA planning now for 10,000 acres to restore ponderosa pine and dry-mixed conifer in an area that is moderately departed from reference condition, and that supplies water to San Cristobal community and several *acequias*. "

The Rio Grande Watershed Coalition identified the Rio Hondo as a high priority area for forest treatments.

The Landscape Restoration Strategy for the Upper Rio Hondo area is:

- A. Using the natural breaks of ridges and talus slopes as anchors, restore and enhance the aspen patches and stringers to create a pattern of interrupted fuel continuity.
- B. Restore and enhance aspen patches within the TSV permit area and thin the gladed areas in the mixed-wet conifer, as allowed by the current Master Development Plan, and stimulate aspen patches in spruce-fir.
- C. Remove hazardous fuels from the campgrounds, and where they are in ponderosa pine or dry-mixed conifer, extend the thinning to the Wilderness boundary.

And according to the Landscape Restoration Strategy, the benefits of the RIO HONDO project are:

- Restoring lands in the Rio Hondo watershed, which provides water to the Village of Taos Ski Valley, to the mutual domestic water systems in Valdez, Arroyo Seco, and Arroyo Hondo, and to several *acequias* downstream.
- The Rio Hondo has exceptionally high recreation and economic value to the community and County, with the ski area, vacation properties, campgrounds, hiking trails, access to Wilderness, and fishing.
- The Rio Hondo tributary streams can support reintroduction of Rio Grande cutthroat trout and provide a publically accessible area for education about native species.
- The Village of Taos Ski Valley is creating a detailed Community Wildfire Protection Plan and will integrate their protection strategy with the planned landscape restoration treatments.

## **RISKS & VULNERABILITIES**

A wildfire represents a variety of risks and consequences to the Village, the tourism industry, the natural environment, and property owners. These risks are outlined below:

- 1. The forest surrounding the Village is overgrown with small diameter, dead and-down and dead-and-standing trees due to fire suppression policies that remained in place by the US Forest Service for many decades. The Wilderness status of the surrounding forests prevents mechanical treatments, essentially rendering any cost effective forest treatments surrounding the Village and within the Upper Rio Hondo watershed virtually impossible.**
- 2. There are 628 different property owners within the Village, and of this total, only 80 parcels were owned from individuals with a mailing address from within the Village (12.7%), 126 had mailing addresses from Albuquerque (20.0%), 330 from New Mexico (52.5%), and 298 from out of state (47.4%). With a majority of property owned by individuals who live outside the Village, the threat of wildfire seems remote.**



- 3. A wildfire would have disastrous consequences to wildlife and wildlife habitat, including the potential for massive fish kills in the Rio Hondo.**

4. **Soil erosion would damage waterways and increase flood potential.**
5. **Irrigated agriculture and grazing in downstream communities would be at risk of water pollution in the Rio Hondo due to ash and debris deposited in the river following a wildfire.**
6. **Persistent drought increases fire potential.**
7. **Invasive insect species kill trees, increasing the ignitability of the forest.**
8. **A fire could damage the Phoenix Spring and Infiltration Gallery, which provides the Village's single source of drinking water. Ash and debris after a fire would impair the water quality at the sources of snow-making infrastructure for TSV, Inc. and thereby affecting spring runoff and use of water for downstream users, i.e. - acequias.**
9. **The forest is used for many cultural and recreational activities, including hiking, skiing, biking, mushroom collecting, camping, fishing, relaxation, and peaceful contemplation and prayer. A wildfire would be disastrous to the aesthetics and usability of the forest.**
10. **Hundreds of millions of dollars being invested by TSV Inc. in the redevelopment of the core area and infrastructure improvements are put at risk.**



**The model of the Blake Hotel and the planned condominium development in the Village core represent millions of dollars of new investment.**

11. **State highway 150 is the single access road to and from the Village making emergency evacuation problematic and dangerous. Roads are steep and virtually inaccessible by fire trucks, especially in winter.**



**The entry to the Ski valley at Valdez warns visitors of the potential fire hazard.**

- 12. Careless visitors may accidentally or intentionally (e.g. – through campfires, smoking, or fireworks) start a fire in remote areas or campgrounds.**
- 13. Above-ground electric utility poles along NM 150 and within the Village are at risk from falling on the lines, from high winds and many other factors beyond human control.**
- 14. The Village has limited financial resources to provide the necessary training and equipment to fight wildfires.**
- 15. Difficulty in getting fire hazard insurance for residences and commercial buildings.**

# **MAPS**

The CWPP includes the following maps:

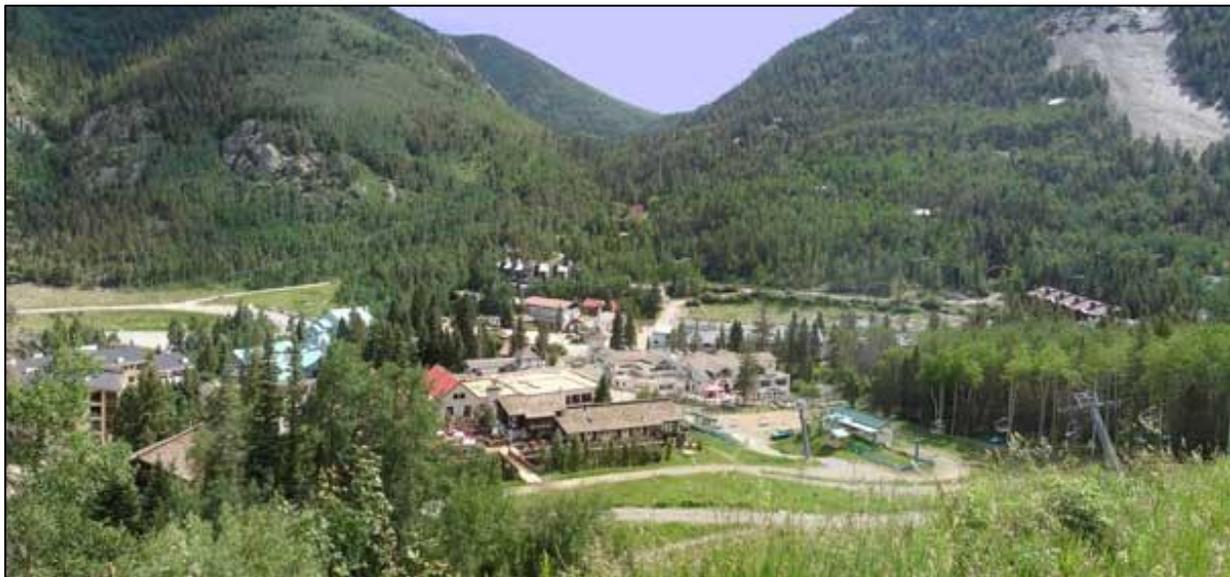
## **1. Vicinity Map (Map #1)**

This map identified the location of the Village relative to surrounding communities and wilderness areas.

## **2. Upper Rio Hondo Watershed & Wildland-Urban Interface (WUI) Map (Map#2)**

The Village is located within the Upper Rio Hondo watershed, consisting of 9,616 acres. The Village itself consists of 1,802 acres. The WUI Map illustrates the borders of the WUI, showing the Village being completely surrounded by the WUI. A WUI is defined as an area where buildings and infrastructure are built near or among lands prone to wildland fire.

“It may be most helpful to think of the Wildland – Urban Interface not as a place, but rather as a set of conditions that can exist in nearly every community. These conditions include the amount, type, and distribution of vegetation; the flammability of the structures (homes, businesses, outbuildings, decks, fences) in the area, and their proximity to fire prone vegetation and other combustible structures; weather patterns and general climate conditions, topography; hydrology; average lot size; road construction; and more.” - Firewise: Community Solutions to a National problem. NFPA. 2009. p. 8.



**The Village Core is clearly within the Wildland-Urban interface and should be protected from the risks of a wildfire.**

### **3. Upper Rio Hondo Forest Fuel Treatments (Map #3)**

This map identifies the locations of the prioritized fuel treatments as recommended by the US Forest Service. The recommendations utilize aspen stands as a management tool to redirect a wildfire into the wilderness areas and away from developed areas. The first priority area is glading the Minnesotas and the The Wild West. Work is being conducted in 2016. The US Forest Service is in the process of clearing the thinning work along NM 150. The scoping letter was released in May, 2016 for public comment. The Village is planning on submitting a Community Forest Restoration Plan grant in early 2017 to provide funding for this work. This work will include thinning around the Phoenix Springs. Another priority area is the private property within the Village that was ranked as "extreme" during the assessments. While the village believes private property owners should be responsible for creating defensible space, the Village will seek technical support and financial resources to assist private property owners.

#### **The forest fuel treatments were described in January 2016 by the US Forest Service Zone Fire Management Officer:**

- Treatments along the State Highway 150 corridor are consistent with a restoration and fuels treatment approach as identified collaboratively by the Taos Valley Watershed Coalition in its Landscape Restoration Strategy.
- Wildfire protection will enhance public safety along the corridor, which is the only ingress and egress to TSV.
- Wilderness designation along both sides of the corridor limits landscape-scale treatment options, requiring creative alternative approaches.
- Exclusively thinning conifers along drainage bottoms is limited due to concerns about protecting water quality in the Rio Hondo.
- Treatments will create a buffer that will slow progression of a wildfire along the corridor or redirect fire into Wilderness areas.
- Secondary benefit will be forest health, including expansion of aspen stands and removal of overgrown decadent and diseased trees.
- Remaining trees will be less susceptible to beetle kill and other pathogens.
- Remaining and enhanced aspen stands burn slower and cooler than conifers and will slow fire progression.

### **4. Land Use (Map #4)**

The Land Use map identified the developed areas relative to the WUI. Fire fighters can use this map to identify the location of the developed areas compared to the location(s) and trajectory of wildfire.

### **5. Surface Water (Map#5) & Aerial Imagery (Map #6)**

This map shows the locations of streams and lakes that would be impacted by a wildfire. It identifies the location of the Beaver Pond that can be used as a water source during firefighting.

The Aerial Imagery map illustrates the amount of forest cover in relation to the Village boundary and the Upper Rio Hondo Watershed. It highlights the ridges and valleys that help determine the trajectory of a wildfire.

## **6. Canopy Cover (Map #7) & Vegetation Type (Map #8)**

Different vegetation and tree types exhibit different fire behavior. Fire fighters can use these maps to predict the rate and severity of a fire under certain weather conditions.

## **7. Roads, Trails & Buildings (Map #9) & Water & Sewer Utilities (Map #10)**

These maps identify the locations of critical infrastructure that would need protection during a wildfire. Roadways and trails could give access to firefighters to help fight wildfires.

## **8. Fire History (Map #11) & Risk Assessment Map (Map #12)**

The Fire History Map shows the footprints of the Encebado and Hondo/Lama fires. Both fires burnt areas significantly larger than the entire Village. The Risk Assessment Map identifies all properties within the Village that are classified as extreme, high, medium, or low based on the degree of defensible space created within each property.

## **9. Flame Length (Map #13) & Crown Fire Activity (Map #14)**

The Flame Length Map illustrates the magnitude of a flame, which is an indicator of how fast it can spread from one tree to the next. The Crown Fire Activity Map identifies the likelihood that a fire will get into the crown of a tree, which increases the severity of the fire.

## **10. Rate of Spread (Map #15) & Fuel Models( Map #16)**

The Rate of Spread Map identifies how fast a fire can travel across the landscape in given weather conditions. The Fuels Model Map identifies the relative amount of fire fuel, which indicates the severity of a fire.

## **11. Anchor Point No Harm Maps**

The Anchor Point Group National Hazard and Risk Model (NO-HARM) is being created for the Taos County CWPP. The model is a response to the growing need for accurate information on the threat of wildfire to structures in the United States. The potential for damage to structures as a result of wildfire is a growing problem as wildland fuels accumulate and greater numbers of people choose to build structures in areas subject to wildfire. The NO-HARM model is a response to the need for the insurance industry to better assess hazard and risk due to wildfire. The NO HARM model is based on several factors, including FireSheds™, fire behavior modeling, historic wildfire disturbance context, proximity to fire stations, parcel and road

density, integration of multiple scales, elevation and aspect adjustment, and urban wildfire threat designation.

- taken from "Anchor Point National Wildfire Hazard/Risk Rating Model." March 2010.

The NO HARM maps will be incorporated into the CWPP when they are complete. The maps may adjust the priority or locations of the proposed fuel treatments.

## **GOAL**

A **goal** is a broad statement that describes the desired results and accomplishments of what is envisioned for the community. A goal reflects the common values and aspirations of the community. A goal is used to guide decisions and set a direction for immediate action.

The Village adopted this goal statement to guide decisions and direct resources to protect the forest.

### ***The people, property, and natural resources of the Village are protected from the impacts of a devastating wildfire.***

Accomplishing this goal requires cooperation among regional organizations and government agencies. It requires the deliberate attention and focus of Village staff to work in collaboration with the business community and property owners. It also requires every individual who lives, works, or visits the Village to take responsibility for protecting the forest and for educating themselves (and others) about wildfire prevention. The forest provides numerous benefits to the regional economy and cultures. It represents our common values, including our desire to protect the trees, soil, water, wildlife, and quality of life.

## **OBJECTIVES**

**Objectives** are specific and measurable actions to be taken by the Village. They outline a sequence of actions that must be taken to accomplish the goal. An objective includes a schedule for when the objective(s) will be completed. They identify who will be responsible for completing the objective. Objective statements clearly define how the goal will be accomplished.

The **Implementation Table** outlines each of the objectives in priority order, the year when the objective should be completed, the party or parties whom are responsible for implementing the objectives, the resources needed, and the deliverable(s) or indicators of success.

## **OBJECTIVE #1 - PROVIDE PUBLIC EDUCATION OPPORTUNITIES REGARDING THE IMPORTANCE OF DEFENSIBLE SPACE AND REDUCING STRUCTURE FIRES.**

The HFRA requires a CWPP to “recommend measures that homeowners and communities can take to reduce the ignitability of structures by wildfires throughout the area addressed by the plan.” In accordance with this requirement, the Village will provide a variety of educational opportunities and resources to individual property owners, businesses owners, and visitors. The content will address **DEFENSIBLE SPACE**, the **READY, SET, GO!** program, **SIM TABLE** demonstrations, **BUILDING CODE REQUIREMENTS**, the availability of **FIRE RESISTANT BUILDING MATERIALS** and **FIRE SUPPRESSION SYSTEMS**, **HOME MAINTENANCE**, **AVAILABILITY OF GRANTS** and **INSURANCE INCENTIVES**, **EVACUATION PROTOCOLS**, **VOLUNTEER OPPORTUNITIES**, and **PUBLIC PARTICIPATION** opportunities.

The Village will provide these resources through **Written Materials**, **Digital & Social Media**, and **Public Events** as described below:

- **Written Materials**
  - a. At the Village Office,
  - b. At the recycling bins,
  - c. On the Burn Boss,
  - d. At local businesses and the Chamber of Commerce,
  - e. On bulletin boards, trailheads, and other visible public places,
- **Digital & Social Media**
  - a. On the Village web page & Blog,
  - b. In e-mail blasts,
  - c. On Facebook,
  - d. On Reverse 911 notices (text notices of weather and fire conditions, trail closures and “ok” to burn status)
- **Public Events**
  - a. During Firewise Board meetings, Village Volunteer Firefighters meetings, committee meetings,
  - b. Firewise Education Day,
  - c. 4<sup>th</sup> or July parade,
  - d. During a community slash pickup,
  - e. During a tour of existing homes that have already created defensible space.

In addition to these efforts, the Firewise Board will be updating the Fire Risk Assessments for each property. The results will be shared with all property owners to inform them of their risk of wildfire and the opportunities and resources for creating defensible space around their property.

## **OBJECTIVE #2 – REDUCE FOREST FUELS WITH RECOMMENDED TREATMENTS AND ON-GOING MAINTENANCE.**

The HFRA requires a CWPP to “prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.” The Village will collaborate with stakeholders to treat the forest fuels in the areas recommended by the US Forest Service – Questa Ranger District and are consistent with the Landscape Restoration Strategy proposed by the Taos Valley Watershed Coalition. The forest fuel treatments are identified on the **Prioritized Forest Fuel Treatments Map (Map #3)**; however, the Fire Risk Assessment Map forthcoming from Anchor Point may reveal additional areas or alternative priorities, and as the science of forest fuel treatments improves and as experience with on-going treatment provides additional information, the priorities and treatment types may change over time and as financial resources are available.

“Appropriately planned and developed fuels reduction treatments provide collateral benefits for bio diversity and greater soils and water retention. Creating gaps in the forest canopy provide fuel breaks that can inhibit fires reaching and carrying in the crown canopy.”

– 2009 Taos County CWPP. p. 46

The Questa Ranger District of the US Forest Service is in the on-going process of preparing the documentation for NEPA clearance of several areas identified for forest fuel treatments. These on-going efforts are highest priority. They include:

1. Glading of the “Wild West” and the “Minnesotas” within the TSV, Inc. Permit Area,
2. Clearing a 25 acre buffer around the Phoenix Spring and infiltration gallery, including possible fencing to prevent elk from eating aspen trees, and
3. Clearing a 150 to 200 foot buffer along the NM 150 corridor between the Village and Valdez, including the areas around the Lower Hondo Campground, the Cuchillo del Medio Campground, and the Cuchilla Campground.
4. Creating defensible space in all private property. Those properties that are at “Extreme Risk” are the highest priority; “High Risk” properties are next priority, and so on.

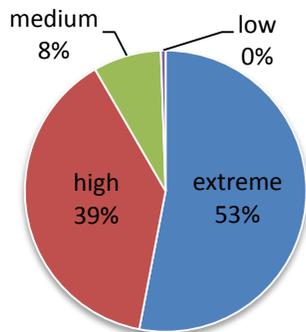
**Each of the prioritized fuel treatment areas is identified by its name/location, status, number of acres, and the priority ranking.**

<b>Name</b>	<b>Status</b>	<b>Acres</b>	<b>Priority</b>
Wild West	Underway	32.5	1
Minnesotas	Underway	14.6	1
Minnesotas	Underway	12.3	1
Minnesotas	Underway	6.2	1
Minnesotas	Underway	4.1	1
	<b>SUBTOTAL</b>	<b>69.6</b>	
Wild West	Proposed	126.5	1
	<b>SUBTOTAL</b>	<b>126.5</b>	
Spring	Proposed	26.5	2
	<b>SUBTOTAL</b>	<b>26.5</b>	
State Highway 150	Proposed	799	3
	<b>SUBTOTAL</b>	<b>799</b>	
Private Property - Extreme Risk	Proposed	83.1	4
	<b>SUBTOTAL</b>	<b>83.1</b>	

<b>GRAND TOTAL</b>	<b>1,104.7</b>
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Of the private property that was assessed, 53% of all the property was assessed at an Extremely High risk rating and 39% with a High Risk rating. The following data shows the results of the assessment.

**Private Property Fire Assessment Results**



<b>Rank</b>	<b>Acres</b>
extreme	83.1
high	60.6
medium	12.26
low	0.84
not ranked	1642

The next immediate steps to implement the priority treatments are to tour treatment areas, update the Forest Treatment Map (if necessary), clearly define the specific burn prescription, and establish a budget for the remaining treatment areas.

The preferred method is to cut, pile, and burn the wood on site. The trees to be targeted for cutting are the mixed-conifer. The Village will work closely with the fire management staff at the Questa Ranger District to identify the most efficient methods for thinning, removing, and/or burning the slash.

Implementing the forest treatments will require a considerable financial investment. The Village will seek grant opportunities and public/private partnerships to leverage the costs of treatments. Potential funding sources, such as the Rio Grande Water Fund and the Collaborative Forest Restoration Project (CFPR), are outlined in the Funding Sources section of the CWPP.

In the Rio Hondo watershed, the management options are constrained by the close proximity of Wilderness boundaries on all sides of the watershed and the community and recreation area protection needs of the Taos Ski Valley, Valdez, and Arroyo Hondo. We will strive to be guided in the Rio Hondo watershed by the ecological needs of wet-mixed conifer and spruce-fir forests, and we recognize that the community protection and recreation area needs will help shape our choices.

– Landscape Restoration Strategy. Taos County Watershed Coalition.

The Village will work with The Nature Conservancy and other partnering agencies and organizations in contributing to **the Fire History Study** and the proposed **Wood & Biomass Utilization Study**. The findings and conclusions of these studies may be used to update the fuel treatment priority areas, if necessary, and to identify possible markets for wood products. The Village will also participate in the **Return on Investment Study**, which will quantify the benefits to water users of investing in upstream water quality projects.

## **OBJECTIVE #3 - PROVIDE EQUIPMENT AND TRAINING TO VOLUNTEER FIRE FIGHTERS TO IMPROVE RESPONSE TIMES.**

A well trained and fully equipped fire department cannot always prevent a wildfire, but it can be very effective at minimizing the damage once a fire starts. The Village of Taos Ski Valley Volunteer Fire Department acts as the first responder to a wildfire and should therefore be fully trained and equipped to respond. The Director of the Village's Public Safety Department identified the following needs in order to increase the wildfire response capability of the Volunteer Fire Department in responding to a wildfire or structure fire:

### **• EQUIPMENT & FACILITIES**

- The Village needs to purchase a ladder truck, water tender truck, and to relocate Station #2.

### **• TRAINING**

- Volunteers attend training in S 130 / 190 – Basic Wildland Firefighting. Additional training depends on the level of commitment each volunteer displays.
- Over twenty volunteers and employees of TSV, Inc. have earned a "Red Card." A Red Card allows a holder to respond to wildland fire incidents and assist federal agency fire-fighting crews in fighting a wildland fire. They can oversee operations of the air curtain incinerator (name brand: Burn Boss) when it is located on forest service land. Training should be on-going as new volunteers are recruited.

**Training opportunities can be in the form of demonstration projects where the volunteer fire department would create defensible space around residences and commercial buildings.**

"A Taos County CWPP CORE Team goal and implementation strategy is to fund and develop a Taos County CWPP Volunteer Fire Fighters First Responders guide. The guide will provide the (14) fourteen Taos County Volunteer Fire departments a locally customized summary of mapping and information developed through the Taos County CWPP. The guide will provide GIS mapping locations of major points of road access, driveways, water sources, dip tanks, electric and propane utilities lines and other community emergency resources. A primary partner in this initiative will be the NM FWRI New Mexico Forestry and Watershed and Restoration Institute, local fire departments. Title II and III funding may be applicable to this initiative." - 2009 Taos County CWPP. p 35.

## **OBJECTIVE #4 – UPDATE THE VILLAGE EVACUATION PLAN ANNUALLY TO REFLECT CHANGES TO THE VILLAGE INFRASTRUCTURE AND COMMUNICATION PROTOCOLS.**

The existing evacuation plan includes two basic elements. 1) Get out of the Village from NM 150, and 2) If NM 150 is not passable, go to the Children’s Center.

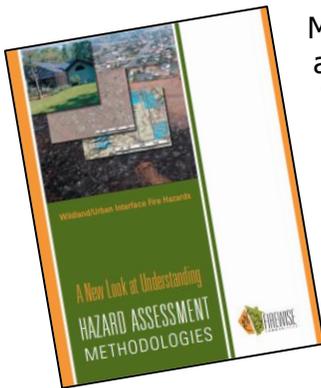
The evacuation plan will be updated annually to reflect the safest and most efficient methods for evacuating the community in the event of a wildfire or other life threatening hazard. The Village recently purchased a community messaging program named Safe Alert to send a text message to anyone with a certain distance of a cellular phone tower to provide evacuation and emergency information. Safe Alert will be used as a critical element to the evacuation plan. The annual subscription to Safe Alert is \$1,200 and will be renewed annually.

## **OBJECTIVE #5 – UPDATE AND COMPLETE THE RISK ASSESSMENT FOR ALL PRIVATE PROPERTY.**

Members of the Firewise Board conducted an assessment of private property to determine risk of a fire for each property based on the conditions of the surrounding vegetation. Not all of the properties were assessed, however. Each of the properties that were assessed was ranked as extremely high, high, moderate, or low risk of igniting from a wildfire. The general criteria they used to determine the differences between each ranking are summarized below:

Grasses and ground cover only	5 points
Brush and small or isolated trees	10 points
Dense brush and trees	20 points
Slash, dead and downed trees	25 points

An EXTREME RISK rating was for a property with more than 20 points, a HIGH RISK rating was for more than 10 points, a MODERATE RISK rating was for more than 5 points, and a LOW RISK rating was for less than 5 points. The intent of the assessment is to share the results with property owners and to encourage mitigation of their property before a fire starts.



Members of the Firewise Board will complete and update the assessment for all properties. Each member will receive training in how to conduct the assessment and in understanding and recognizing risks and the process of ignition of how a fire spreads from the surrounding landscape vegetation to the structure (i.e. – radiation, convection, and/or conduction).

**The Fire wise Board members should use the training materials made available by the National Fire Protection Association and other applicable training resources when completing the assessments.**

The members should also study NFPA 1144 – Standards for Reducing Ignition Hazards from Wildland Fire. This standard provides a methodology for assessing wildland fire ignition hazards around existing structures and provides requirements for new construction to reduce the potential of structure ignition from wildland fires.

## **OBJECTIVE #6 – ADOPT POST WILDFIRE BURN AREA EMERGENCY REHABILITATION PROTOCOLS.**

Wildfires have lasting impacts to the entire watershed, including:

- Loss of wildlife habitat, such as fish kills in streams,
- Soil erosion and sediment transport,
- Surface water quality is impaired due to ash and debris.

Downstream water users, such as acequias and mutual domestic water associations, are all at risk of impaired water quality after a wildfire.

**“Post-fire erosion, sediment flows and flooding can have substantial impacts on acequias—resulting in limited capacity or rendering them completely ineffective. Many acequia members are small farmers/ranchers who, in addition to small sales, rely on their agricultural production for personal use and barter/trade.”**

– Taos County Return on Investment Study for the Rio Grande Water Fund. p. 23

The Burn Area Emergency Rehabilitation (BAER) protocols will identify the specific actions to be taken to minimize these impacts. The BAER will answer the basic questions of what do and who is responsible for these actions after a fire:

- Organize a team of local, state, and federal agencies and establish, communication protocols and priorities,
- Erosion control,
- River restoration,
- Request recovery funds from FEMA, NRCS, USDA, and the Department of Interior BAER programs,
- Process insurance claims,
- Inspect buildings and infrastructure for damage,
- Restore drinking water sources and monitor water quality.

A Memorandum of Understanding should be developed and signed prior to a fire in order to clarify roles, duties and identify coordination efforts. The Village will also join the Burned Area Learning Network.



### **The post-fire impacts from the Las Conchas Fire.**

The Las Conchas Fire began at approximately 1 PM on June 26, 2011 just west of the park. In its first 13 hours it burned over 44,000 acres or almost an acre a second. Over the next weeks it grew to over 156,000 acres and became the largest wildfire in New Mexico history. The fire started with a tree falling onto a power line.

<http://www.nps.gov/band/learn/nature/lasconchas.htm>

“The Hondo/ Lama Wildfire ignited on Cinco De Mayo 1996 in a trash barrel on private lands in San Cristobal. At the time it had the highest recorded rate of spread in the Pinyon/Juniper type. The fire completely consumed 10,000 forested acres within 36 hours of ignition. It destroyed 22 homes and other structures in the community of Lama and seriously threatened the Village of Questa. The post burn conditions impacted the spring box water source at the Lama Foundation and compromised the acequia system of the community of Lama with siltation from post burn erosion.”

– Taos County CWPP. 2009. P. 11

## **OBJECTIVE #7 – PARTICIPATE IN CLIMATE CHANGE ADVOCACY AND GREENHOUSE GAS EMISSIONS REDUCTIONS.**

Taos Ski Valley, Inc. pledged to reduce its carbon footprint as part of its participation in the National Ski Area Association’s (NSAA) Climate Challenge. In 2015, TSV, Inc. reduced greenhouse gas emissions by 340 metric tons of CO<sub>2</sub>, representing a 10.9 percent reduction over the previous year. TSV, Inc. reduced its greenhouse gas emissions by 10.9% in just one year through several initiatives, including the sourcing of local and organic foods, retrofitting its lighting systems and installing water bottle refilling stations, expanding the recycling program, increasing the public transportation offerings for its employees (that took an average of 125 vehicles off the road every day during the 2015-16 season and preventing 22,000 round trips and 299 metric tons of CO<sub>2</sub>, and saving 33,000 gallons of fuel), and making its snowmaking capabilities more efficient (resulting in an 18 percent reduction in energy use with a 15 percent increase in water-to-snow conversion). Taos Ski Valley has also mobilized its staff base to encourage sustainability. Two staff positions were added specifically devoted to sustainability projects. This led to the creation of the “Green Team”— a group of employees dedicated to aiding sustainability projects throughout the resort. The new Blake Hotel, which is slated to open in late fall of 2016, will be LEED certified, with ground source heat pumps and other energy-saving technologies.

In following the lead of TSV, Inc. the Village will also participate in regional and local efforts to reduce greenhouse gas emissions. Some of these efforts include the TSV, Inc. Green Team the Regional Water Plan, and events sponsored by Renewable Taos.

Some specific strategies should include:

- Join the US Mayor’s Climate Protection Agreement,
- Include renewable energy in the design of Village buildings and facilities,
- Replace the Village fleet with vehicles with improved gas mileage or with alternative fuel vehicles,
- Conduct a greenhouse gas emission inventory, set targets for reducing GHG emissions, and set priorities for investments,
- Perform an energy audit of Village buildings; invest in energy and water conservation,
- Provide direct financial incentives for energy and water conservation to builders and developers; provide information to architects, homeowners, and builders regarding state and federal tax incentives for energy and water conservation and renewable energy improvements.

**The Village will work with local, regional, and national organizations to identify the most economic and effective methods for reducing greenhouse gas emissions and adapt to drought conditions. These organizations include Renewable Taos, River’s & Birds, the Model Forest Policy Project, and the Climate Project.**

## **OBJECTIVE #8 – IMPROVE THE VILLAGE’S FIRE DEPARTMENT INSURANCE SERVICES ORGANIZATION (ISO) RATING.**

Improving the ISO Rating requires a variety of improvements, including improved firefighter response, purchasing fire equipment such as a ladder truck, building additional fire stations, and providing additional water delivery and storage capacity. An improved ISO rating will increase funding provided to the Village’s volunteer fire department and will reduce homeowner’s insurance rates.

The general criteria for reducing the ISO rating are:

- **Communications System.** Communication is provided by the Taos County Central Dispatch. The Village has little influence over its operations and funding capacity.
- **Water Supply.** The Village is currently investing in a new water tank in the Kachina area to increase water storage capacity and pressure to support new development and improve the water supply in the event of a fire.
- **Equipment and Training.** The Village’s Infrastructure Capital Improvements Plan and the Comprehensive Plan – Community Service and Natural Hazards Elements - call for purchasing additional equipment to improve fire-fighting response and capacity. The VTSVFD conducts hose testing and pump testing to ensure proper operations of equipment.

The Village received its first ISO rating in 1997 then again in May, 2015. The ISO rating went from an 8 to a 6 between 1997 and 2015. ISO has set a goal of surveying every department every three to five years. The ISO rating is strictly applicable to the capacity to fight a structure fire versus a wildfire.

## **OBJECTIVE #9 - EVALUATE EXISTING ORDINANCES AND BUILDING CODE REQUIREMENTS AND UPDATE THEM TO INCREASE FIRE PROTECTION STANDARDS.**

Individual property owners are responsible for creating defensible space around their own property when they apply for a building permit, but it does not guarantee that a neighbor will take the same responsibility on undeveloped property. Several subdivisions have been developed with relatively small lots and narrow set-backs between buildings. Although build codes provide minimum separation distances between buildings, it does not guarantee that a fire will not migrate from one lot to an adjacent structure.

Additional regulations may be imposed to require the property owner to create defensible space prior to issuing a building permit. The Planning & Zoning will need to decide at what level of investment in new construction will legally justify the added cost of creating defensible space. For example, will a permit application for a new deck or bedroom addition trigger the defensible space requirement or does the building permit have to be for a new residence to trigger the requirement? Does an existing residence or commercial building get “grandfathered” or do all property owners have to create defensible space within a specific timeframe of the Village approving the new regulation? Alternatively, the Village may require the creation of defensible space of only those properties that have received a high or extremely high risk rating, allowing for appeals and alternative assessments and proposed treatments. The Village may redefine the WUI boundary and require the creation of defensible space within the WUI only instead of a “one regulation fits all” approach. Because retrofitting an existing building can be very expensive (e.g. – replace a new roof with fire resistant materials), perhaps a new regulation would apply only to clearing the vegetation surrounding the building and not apply to building retrofits. The Village may consider a full or partial waiver of building permit fees for certain types of new construction as an incentive for retrofitting existing buildings to become more fire resistant. Regardless of the level of regulation and the approach to introducing new regulations to the community, the level of regulation must be appropriate for the level risk.

The Firewise Board, the Village Council and the Planning & Zoning Commission will provide educational outreach and incentives prior to entertaining mandatory requirements. Local leaders should ask themselves prior to entertaining any new regulation, “Is the new regulation legal?” then they should ask themselves “Is the new regulation politically acceptable” in the community. Just because a regulation is legal does not mean that it will be accepted and implemented in the community.

## **MONITORING AND EVALUATION**

The Firewise Board will be primarily responsible for monitoring the progress toward implementing the objectives and accomplishing the goal of the CWPP. Members of the Village staff, the VTSVFD, the Planning & Zoning Commission and Village Council will also evaluate the effectiveness and accomplishments of the CWPP.

**Accomplishing each objective will undoubtedly take more than five years; therefore, the Village will need to update the CWPP within five years of its approval.** Each objective of the CWPP will be reviewed annually and any progress documented for the CWPP update. Monitoring the implementation of the CWPP will also be based on the following checklist of questions:

- a. Did a wildfire ignite and how was the CWPP used to help prepare and respond?
- b. Was the risk assessments of private property updated?
- c. How many forest fuel treatments were completed?
- d. Were any new land developments approved in the WUI? What wildfire prevention techniques were used in the development's design?
- e. Did the Village complete any infrastructure improvements that increase fire-fighting capabilities? Were any new sirens installed and tested?
- f. Did the Village test the Safe Alert program?
- g. Is any new mapping data available? How can it inform the location, type or priorities for forest fuel treatment areas?
- h. Can the Village reduce the fire risk rating from high to moderate?
- i. Are there any new collaborators that can contribute to the updated CWPP?
- j. What level of collaboration that took place since the last CWPP was adopted?
- k. What public education and outreach activities that took place since the last CWPP was adopted?
- l. Have any fuel treatment practices been made available that would amend the proposed priorities or treatments? Are there any new scientific discoveries of wildfire behavior that would amend the CWPP?

Any forest fuel treatments will require maintenance and evaluation. Any accumulated ground fuels and "litter" should be burned (e.g. – broadcast burning) and remaining tress should be pruned.

**The Village will utilize the standards adopted by the New Mexico Association of Governments as a guideline for updating the CWPP.**

## **CONCLUSIONS**

The CWPP is an important step in protecting the Village from a wildfire. It is not the first step and certainly not the last. The CWPP represents the success of the Village in becoming a Firewise Community and its potential to become adapted to a wildfire as the CWPP is implemented, monitored, and updated.

The Village collaborated with many stakeholders in developing the CWPP, but many other stakeholders did not have the time or opportunity to participate before it was adopted. The Village will continue to collaborate with stakeholders in implementing the objectives and in future updates.

It is hard to image a greater threat to the Village than a devastating wildfire. The CWPP attempts to provide clear direction on the specific actions that need to be taken to protect the people, property and natural resources from these threats. The scope of the CWPP includes the upper Rio Hondo watershed in recognizing the relationships between watershed health and forest fire resilience. A healthy forest and a healthy watershed are inseparable.

The ultimate outcome of the CWPP is when a forest fire becomes a necessary part of the forest and watershed instead of a threat. This will not be possible without deliberate attention to the implementing the CWPP and the dedication of the people who live, work and visit the Village of Taos Ski Valley.

## **IMPLEMENTATION & PRIORITIES**

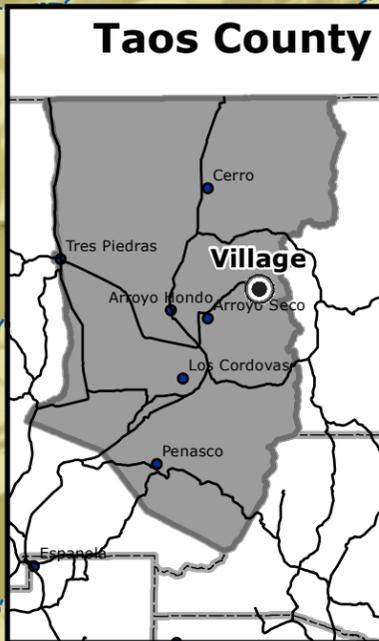
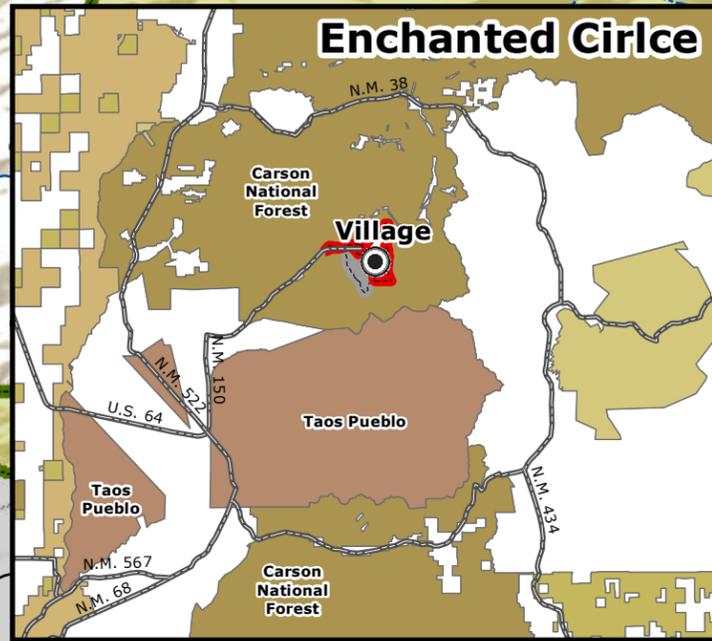
It is clear that the Village government cannot implement the CWPP in isolation. Adequate funding, professional consultants, and political determination are not enough to complete all of the objectives. It will require close communication and cooperation with the business community, residents, property owners, community organization and all levels of government. The Village will use the full range of tools to implement the CWPP. The first step in implementing the objectives of the Plan is to establish the priorities. Accordingly, the following chart identifies the priorities for completing each of the objectives.

<b>OBJECTIVES</b>	<b>YEAR(S) COMPLETED</b>	<b>RESPONSIBLE PARTIES</b>	<b>RESOURCES NEEDED</b>	<b>DELIVERABLES OR INDICATORS OF SUCCESS</b>	<b>POTENTIAL FUNDING SOURCE(S)</b>
<b>#1 - PROVIDE PUBLIC EDUCATION OPPORTUNITIES REGARDING THE IMPORTANCE OF DEFENSIBLE SPACE AND REDUCING STRUCTURE FIRES.</b>	2016 - 2021	<ul style="list-style-type: none"> <li>• Firewise Board</li> <li>• Village Staff</li> <li>• VTSVVFD</li> </ul>	<ul style="list-style-type: none"> <li>• Funding for materials</li> <li>• Coordination and planning for events</li> <li>• Grant applications</li> <li>• Technical assistance</li> <li>• Political support for code amendments</li> <li>• Staff time</li> </ul>	<ul style="list-style-type: none"> <li>• The number of presentations, hand-outs, education days and public events.</li> <li>• The number of properties treated for defensible space and structures improved to minimize ignitability.</li> <li>• The number of grants provided.</li> </ul>	<ul style="list-style-type: none"> <li>• Village</li> <li>• TSWCD</li> <li>• TITLE III Forest Service Reserves</li> <li>• NFL</li> <li>• Forestry Division - Urban and Community Forestry Program</li> <li>• Forestry Division - Forest Legacy</li> <li>• Land Conservation Tax Credits</li> <li>• National Forest Foundation</li> <li>• Pre-Disaster Mitigation Grant Program</li> <li>• Wildland Urban Interface Community and Rural Fire Assistance</li> <li>• Natural Resources Conservation Service - Emergency Watershed Protection Program</li> <li>• The International Association of Fire Chiefs (IAFC) and American International Group, Inc. (AIG)</li> </ul>
<b>#2 – REDUCE FOREST FUELS WITH RECOMMENDED TREATMENTS AND ON-GOING MAINTENANCE.</b>	2016-2021	<ul style="list-style-type: none"> <li>• Firewise Board</li> <li>• Village Staff</li> <li>• USFS</li> <li>• TSV, INC.</li> </ul>	<ul style="list-style-type: none"> <li>• Funding</li> <li>• Grant applications</li> <li>• Identification of utilization of wood products</li> <li>• National Environmental Policy clearances</li> <li>• Education and cooperation with private property owners</li> <li>• Staff time</li> </ul>	<ul style="list-style-type: none"> <li>• The acres of fuel treatments completed.</li> </ul>	<ul style="list-style-type: none"> <li>• USFS</li> <li>• TSWCD</li> <li>• Rio Grande Water Fund</li> <li>• Conservation Partnership</li> <li>• New Mexico Youth Conservation Corps</li> <li>• Hazardous Fuels Treatments on Non-Federal Lands</li> <li>• Forestry Division – Wildland-Urban Interface</li> <li>• Forestry Division - Forest Health Initiative</li> <li>• Collaborative Forest Restoration Program</li> <li>• Collaborative Forest Landscape Restoration Fund</li> <li>• Stewardship Contracting</li> <li>• National Forest Foundation</li> <li>• Pre-Disaster Mitigation Grant Program</li> <li>• Wildland Urban Interface Community and Rural Fire Assistance</li> <li>• Natural Resources Conservation Service - Emergency Watershed Protection Program</li> <li>• Chiefs' Joint Landscape Restoration Partnership</li> <li>• The International Association of Fire Chiefs (IAFC) and American International Group, Inc. (AIG)</li> </ul>

<b>#3 - PROVIDE EQUIPMENT AND TRAINING TO VOLUNTEER FIRE FIGHTERS TO IMPROVE RESPONSE TIMES.</b>	2016-2021	<ul style="list-style-type: none"> <li>• Village Council</li> <li>• VTSVFD</li> </ul>	<ul style="list-style-type: none"> <li>• Funding</li> <li>• Grant applications</li> <li>• Garage to store new vehicles</li> <li>• Engaged and rewarded volunteers</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment purchased and training provided.</li> </ul>	<ul style="list-style-type: none"> <li>• Village Impact Fees</li> <li>• State Fire Marshal</li> <li>• Fire Prevention and Safety Grants</li> <li>• Wildland Urban Interface Community and Rural Fire Assistance</li> <li>• Natural Resources Conservation Service - Emergency Watershed Protection Program</li> <li>• Assistance to Firefighters Grants</li> <li>• Staffing for Adequate Fire &amp; Emergency Response Grants</li> <li>• The International Association of Fire Chiefs (IAFC) and American International Group, Inc. (AIG)</li> </ul>
<b>#4 – UPDATE THE VILLAGE EVACUATION PLAN ANNUALLY TO REFLECT CHANGES TO THE VILLAGE INFRASTRUCTURE AND COMMUNICATION PROTOCOLS.</b>	2016-2021	<ul style="list-style-type: none"> <li>• Firewise Board</li> <li>• VTSVFD</li> </ul>	<ul style="list-style-type: none"> <li>• Technical assistance</li> <li>• Time and commitment</li> </ul>	<ul style="list-style-type: none"> <li>• Plans updated and implemented annually.</li> </ul>	<ul style="list-style-type: none"> <li>• Fire Prevention and Safety Grants</li> <li>• Pre-Disaster Mitigation Grant Program</li> </ul>
<b>#5 – UPDATE AND COMPLETE THE RISK ASSESSMENT FOR ALL PRIVATE PROPERTY.</b>	2017	<ul style="list-style-type: none"> <li>• Firewise Board</li> </ul>	<ul style="list-style-type: none"> <li>• Training on assessment methods</li> <li>• Time and commitment</li> <li>• Cooperation from private property owners</li> <li>• Firewise Board time</li> </ul>	<ul style="list-style-type: none"> <li>• Number of properties assessed.</li> </ul>	<ul style="list-style-type: none"> <li>• NRCS</li> <li>• TVSWCD</li> </ul>
<b>#6 – ADOPT POST WILDFIRE BURN AREA EMERGENCY REHABILITATION PROTOCOLS.</b>	2018	<ul style="list-style-type: none"> <li>• Firewise Board</li> <li>• Village Staff</li> <li>• VTSVFD</li> <li>• Downstream water users and communities</li> </ul>	<ul style="list-style-type: none"> <li>• Technical assistance</li> <li>• Participation from downstream water users and communities</li> <li>• Staff time</li> </ul>	<ul style="list-style-type: none"> <li>• An approved BAER plan.</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-Disaster Mitigation Grant Program</li> <li>• Hazard Mitigation Grant Program</li> <li>• Fire Management Assistance Grant</li> <li>• NRCS Emergency Watershed Protection Plan</li> </ul>
<b>#7 – PARTICIPATE IN CLIMATE CHANGE ADVOCACY AND GREENHOUSE GAS EMISSIONS REDUCTIONS.</b>	2016-2021	<ul style="list-style-type: none"> <li>• Village Council</li> <li>• Firewise Board</li> <li>• Village Staff</li> <li>• VTSVFD</li> </ul>	<ul style="list-style-type: none"> <li>• Political commitment</li> <li>• Technical assistance</li> <li>• Funding</li> <li>• Grant applications</li> <li>• Regional partnerships</li> <li>• Staff time</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in local and regional initiatives.</li> <li>• Approval of GHG emissions inventory and reductions strategies plan implemented.</li> <li>• Value of alternative energy investments.</li> <li>• Measured reduction in GHG emissions.</li> </ul>	<ul style="list-style-type: none"> <li>• Climate Solutions University</li> <li>• Renewable energy tax credits</li> <li>• Forestry Division – Re-Leaf Program</li> <li>• Ski Conservation Fund</li> </ul>

<b>#8 – IMPROVE THE VILLAGE’S FIRE DEPARTMENT INSURANCE SERVICES ORGANIZATION RATING.</b>	2019	<ul style="list-style-type: none"> <li>• Village Council</li> <li>• Village Staff</li> <li>• VTSVFD</li> </ul>	<ul style="list-style-type: none"> <li>• Political commitment</li> <li>• Technical assistance</li> <li>• Funding</li> <li>• Grant applications</li> <li>• Staff time</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced ISO rating.</li> </ul>	<ul style="list-style-type: none"> <li>• Fire Prevention and Safety Grants</li> <li>• Wildland Urban Interface Community and Rural Fire Assistance</li> <li>• Fire Prevention and Safety Grants</li> <li>• The International Association of Fire Chiefs (IAFC) and American International Group, Inc. (AIG)</li> </ul>
<b>#9 - EVALUATE EXISTING ORDINANCES AND BUILDING CODE REQUIREMENTS AND UPDATE THEM TO INCREASE FIRE PROTECTION STANDARDS.</b>	2019	<ul style="list-style-type: none"> <li>• Village Council</li> <li>• P&amp;Z Commission</li> <li>• Village Staff</li> <li>• VTSVFD</li> </ul>	<ul style="list-style-type: none"> <li>• Political commitment</li> <li>• Technical assistance</li> <li>• Staff time</li> </ul>	<ul style="list-style-type: none"> <li>• Number of codes and ordinances updated.</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-Disaster Mitigation Grant Program</li> </ul>

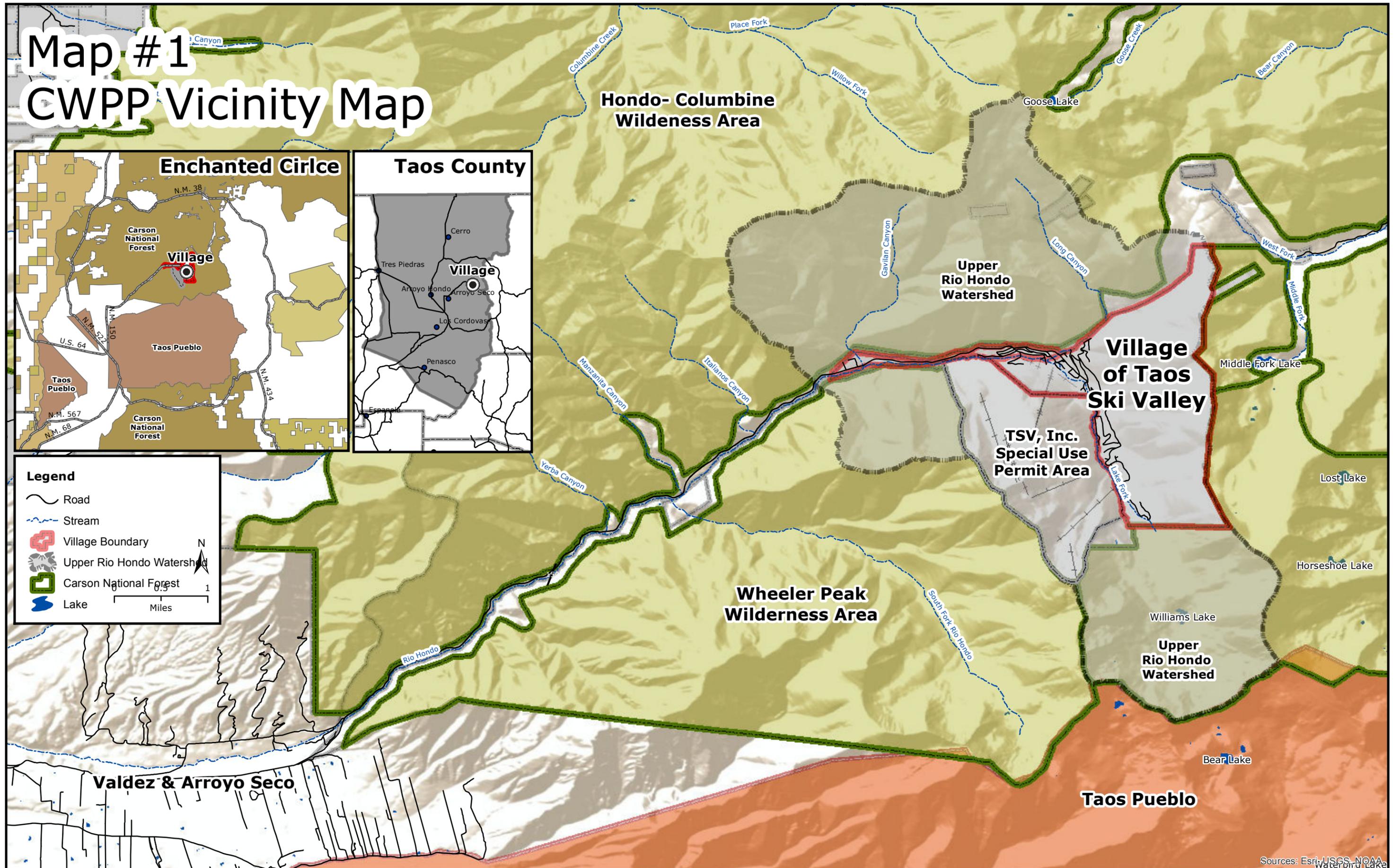
# Map #1 CWPP Vicinity Map



**Legend**

- Road
- Stream
- Village Boundary
- Upper Rio Hondo Watershed
- Carson National Forest
- Lake

N  
1  
Miles





# Upper Rio Hondo Forest Fuel Treatments

## Map #3

### Legend

#### Treatment - Public Property

- █ Planned
- █ Proposed
- █ Underway

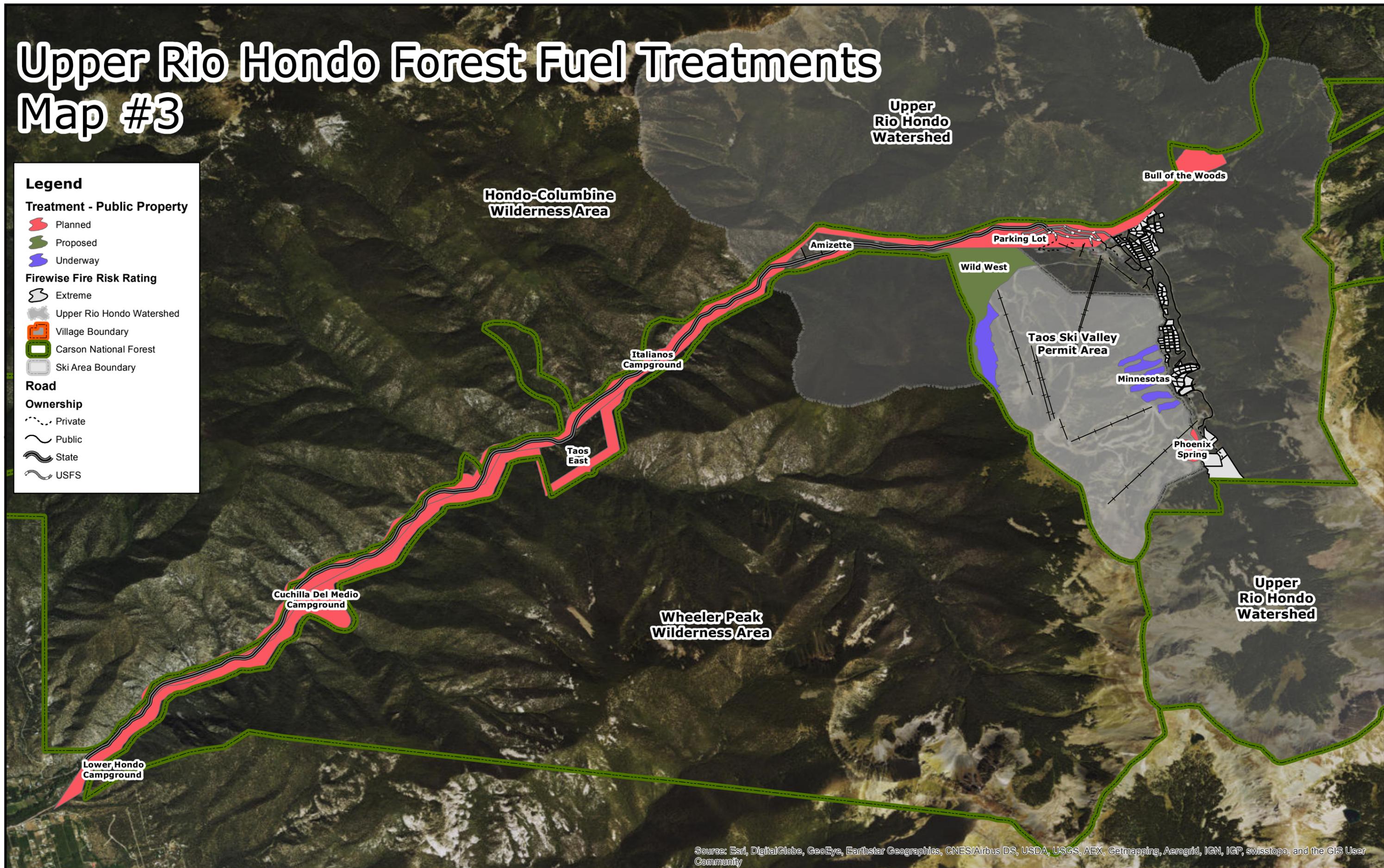
#### Firewise Fire Risk Rating

- Extreme
- Upper Rio Hondo Watershed
- Village Boundary
- Carson National Forest
- Ski Area Boundary

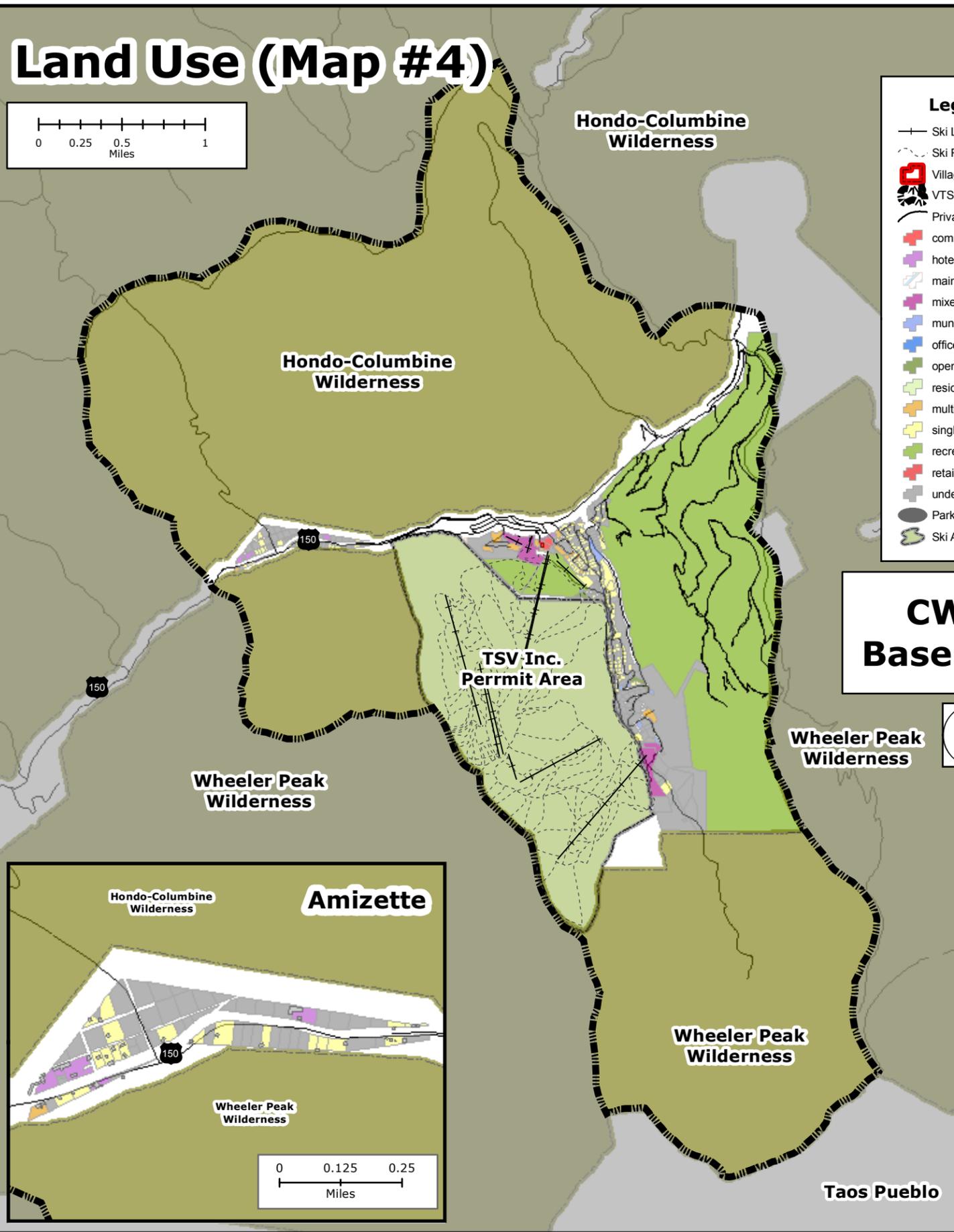
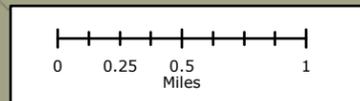
#### Road

#### Ownership

- Private
- Public
- State
- USFS

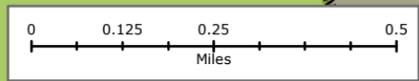
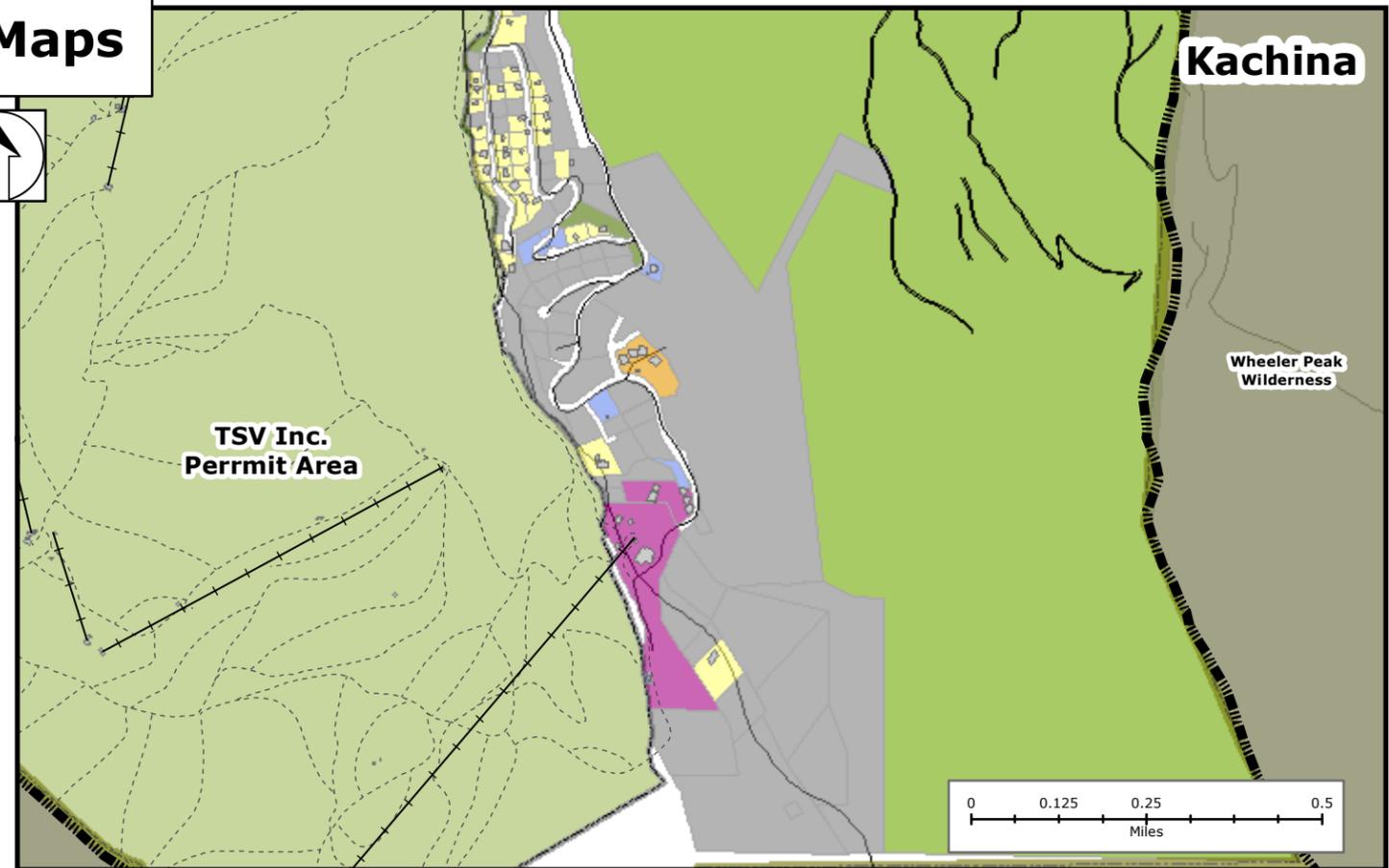
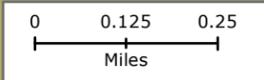
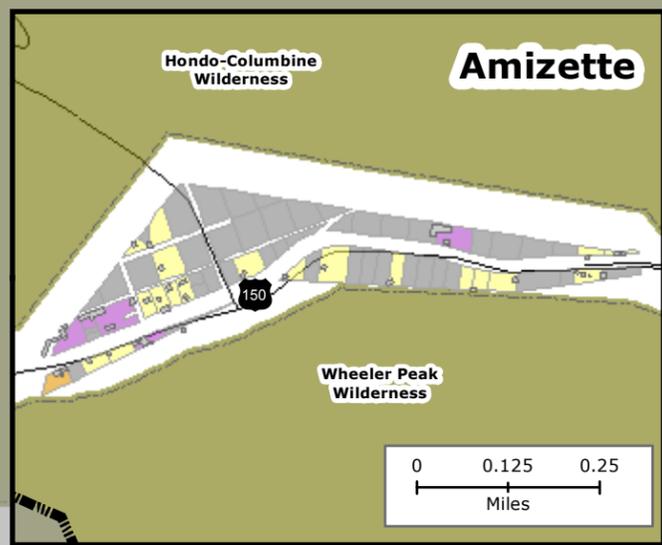
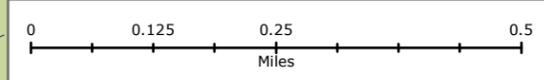
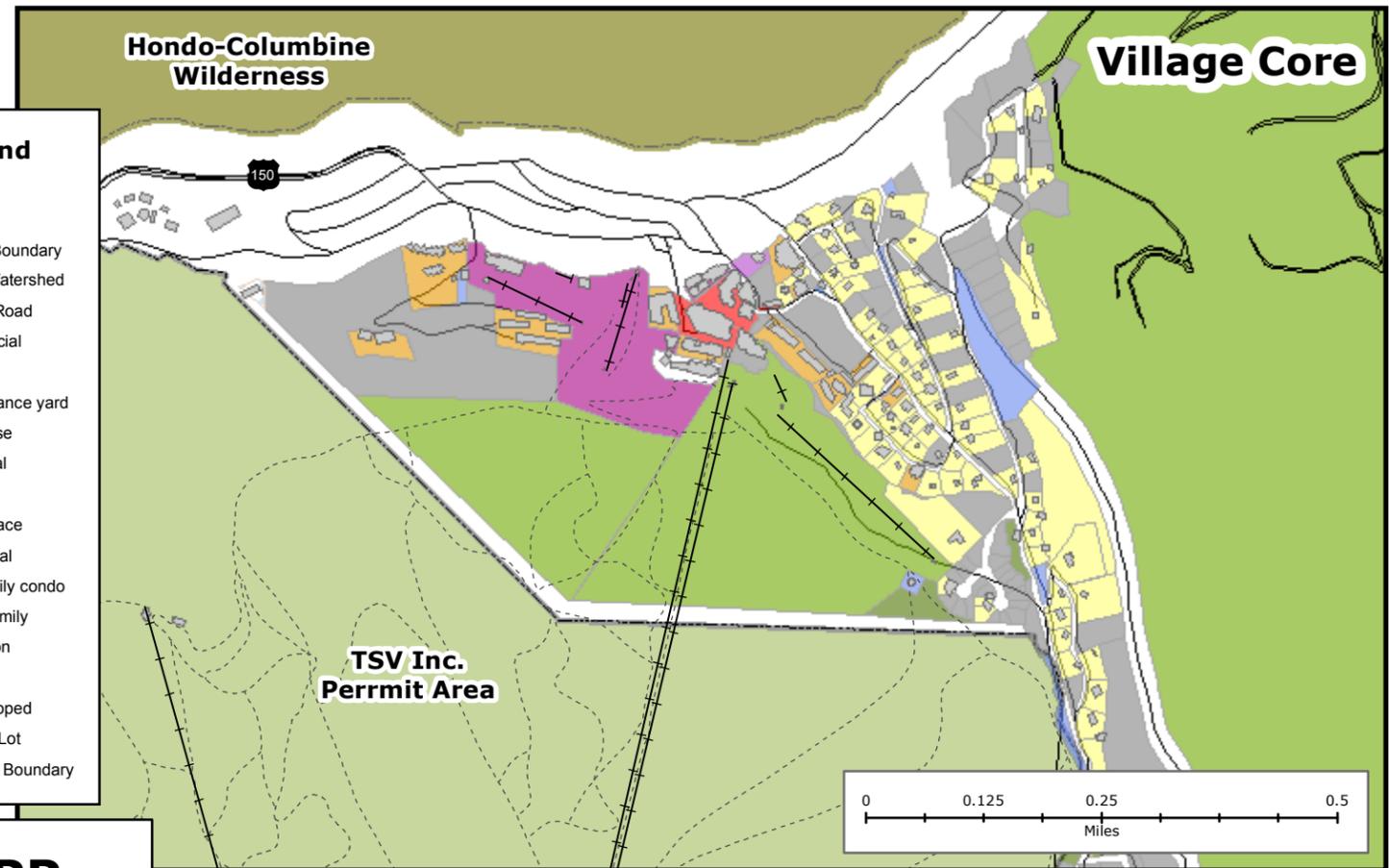
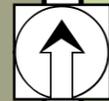


# Land Use (Map #4)

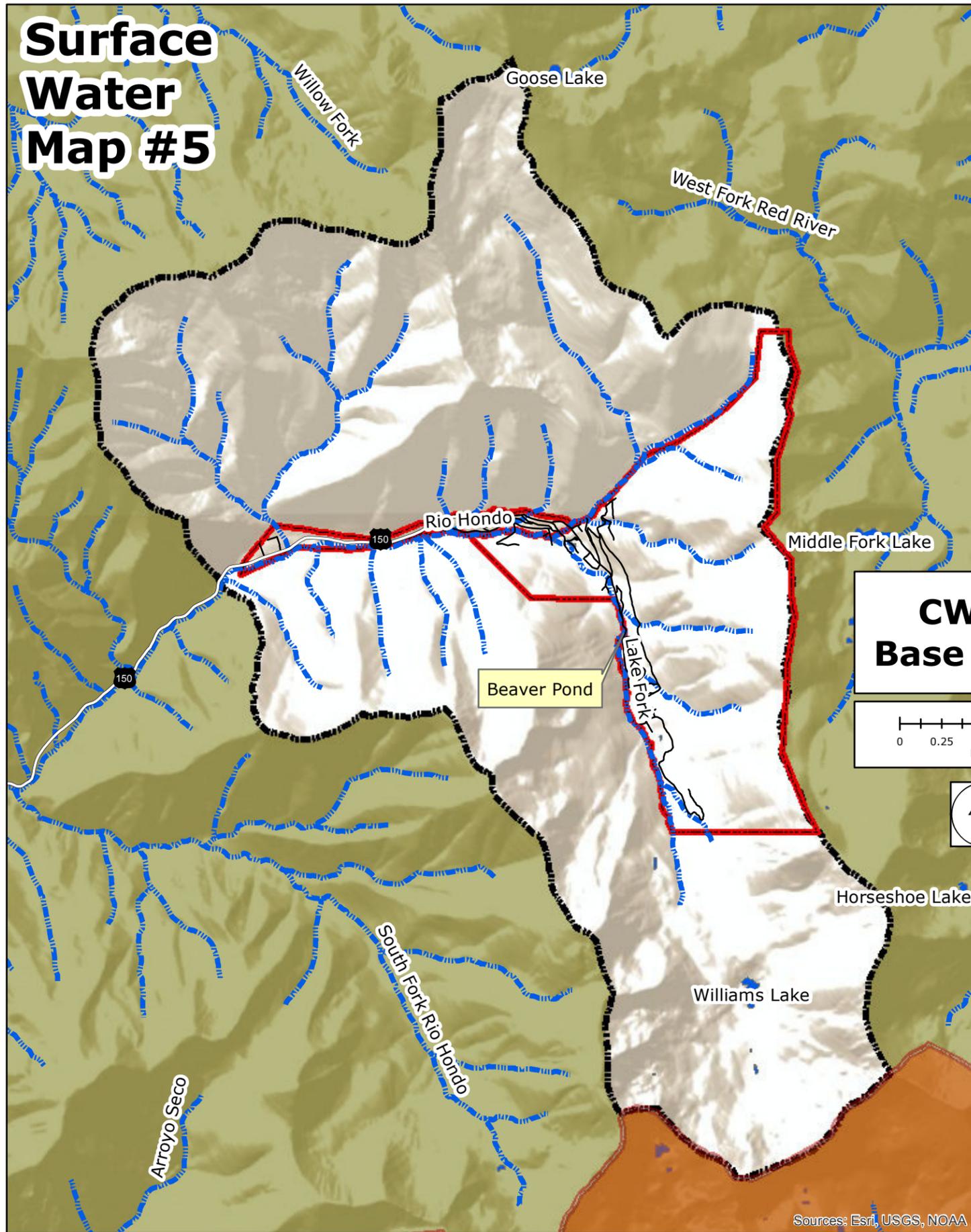


- ### Legend
- Ski Lift
  - Ski Run
  - Village Boundary
  - VTSV Watershed
  - Private Road
  - commercial
  - hotel
  - maintenance yard
  - mixed use
  - municipal
  - office
  - open space
  - residential
  - multifamily condo
  - single family
  - recreation
  - retail
  - undeveloped
  - Parking Lot
  - Ski Area Boundary

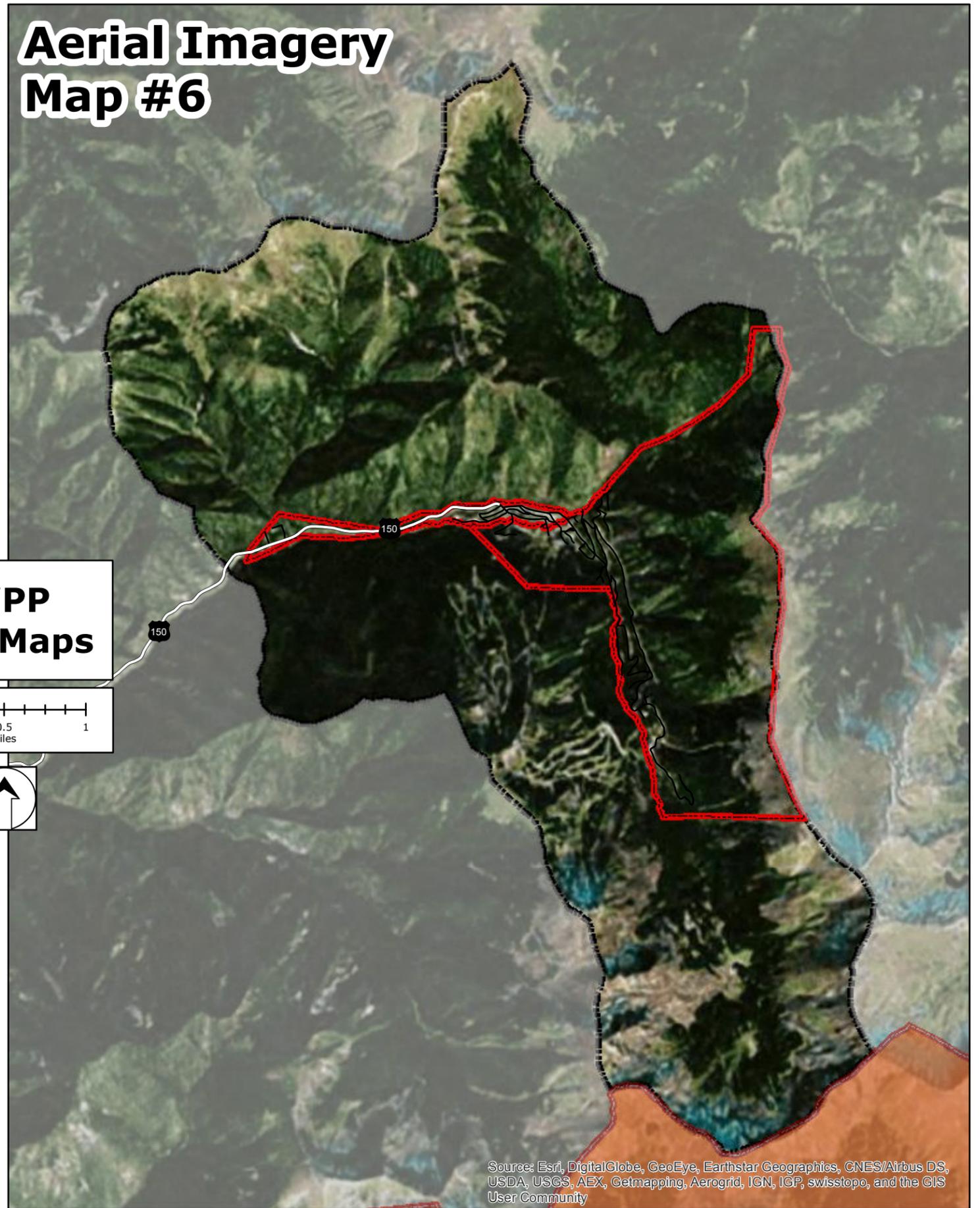
## CWPP Base Maps



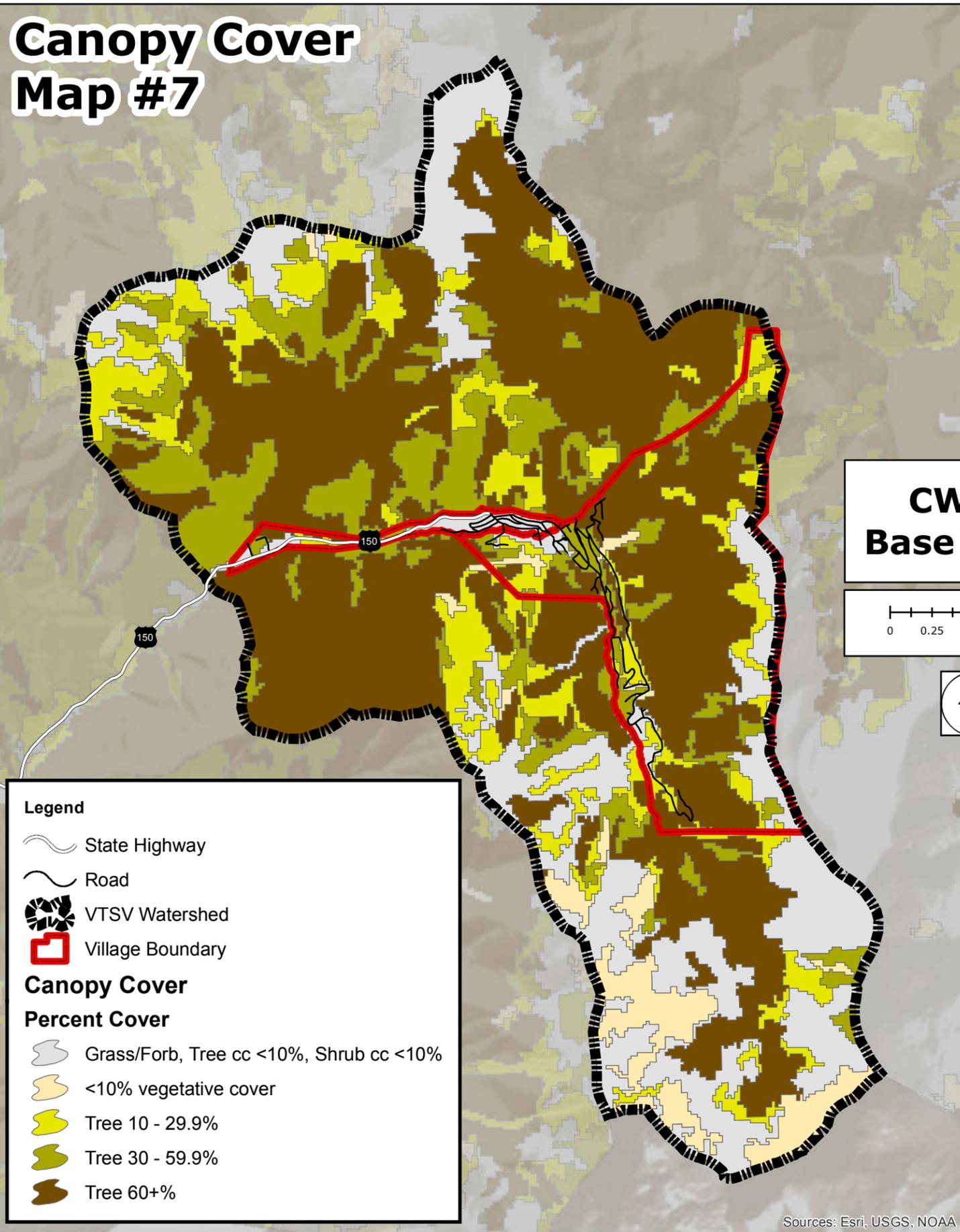
# Surface Water Map #5



# Aerial Imagery Map #6



# Canopy Cover Map #7



**Legend**

- State Highway
- Road
- VTSV Watershed
- Village Boundary

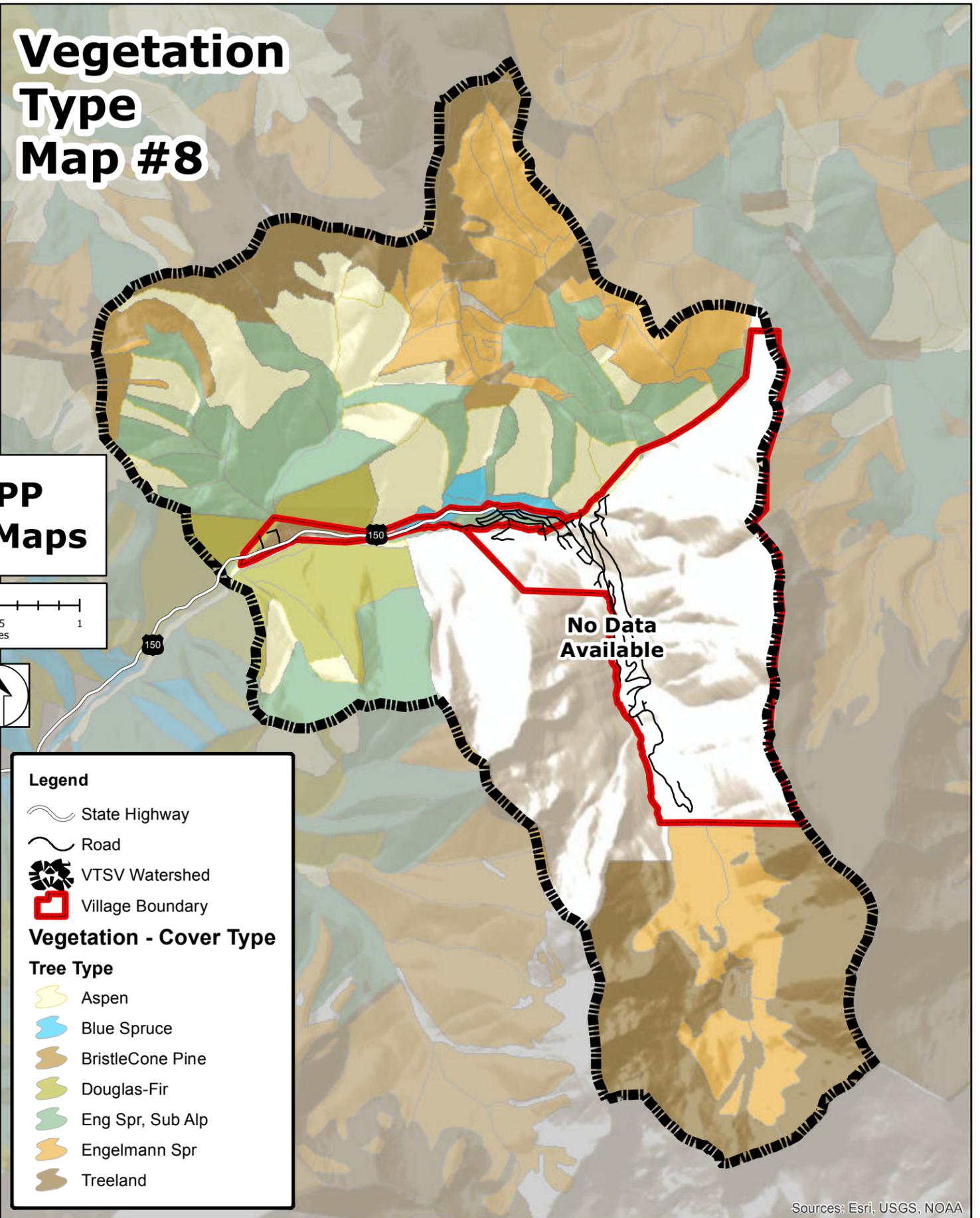
**Canopy Cover**

**Percent Cover**

- Grass/Forb, Tree cc <10%, Shrub cc <10%
- <10% vegetative cover
- Tree 10 - 29.9%
- Tree 30 - 59.9%
- Tree 60+%

Sources: Esri, USGS, NOAA

# Vegetation Type Map #8



**Legend**

- State Highway
- Road
- VTSV Watershed
- Village Boundary

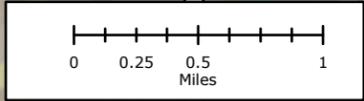
**Vegetation - Cover Type**

**Tree Type**

- Aspen
- Blue Spruce
- BristleCone Pine
- Douglas-Fir
- Eng Spr, Sub Alp
- Engelmann Spr
- Treeland

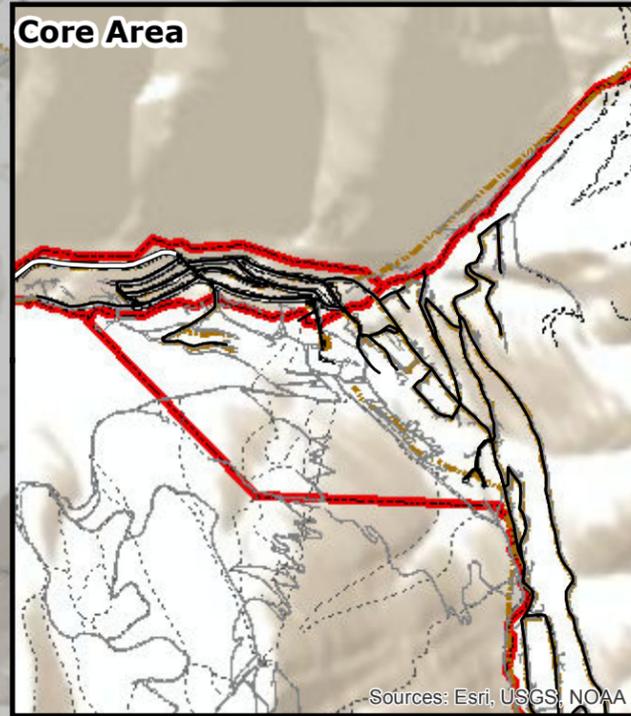
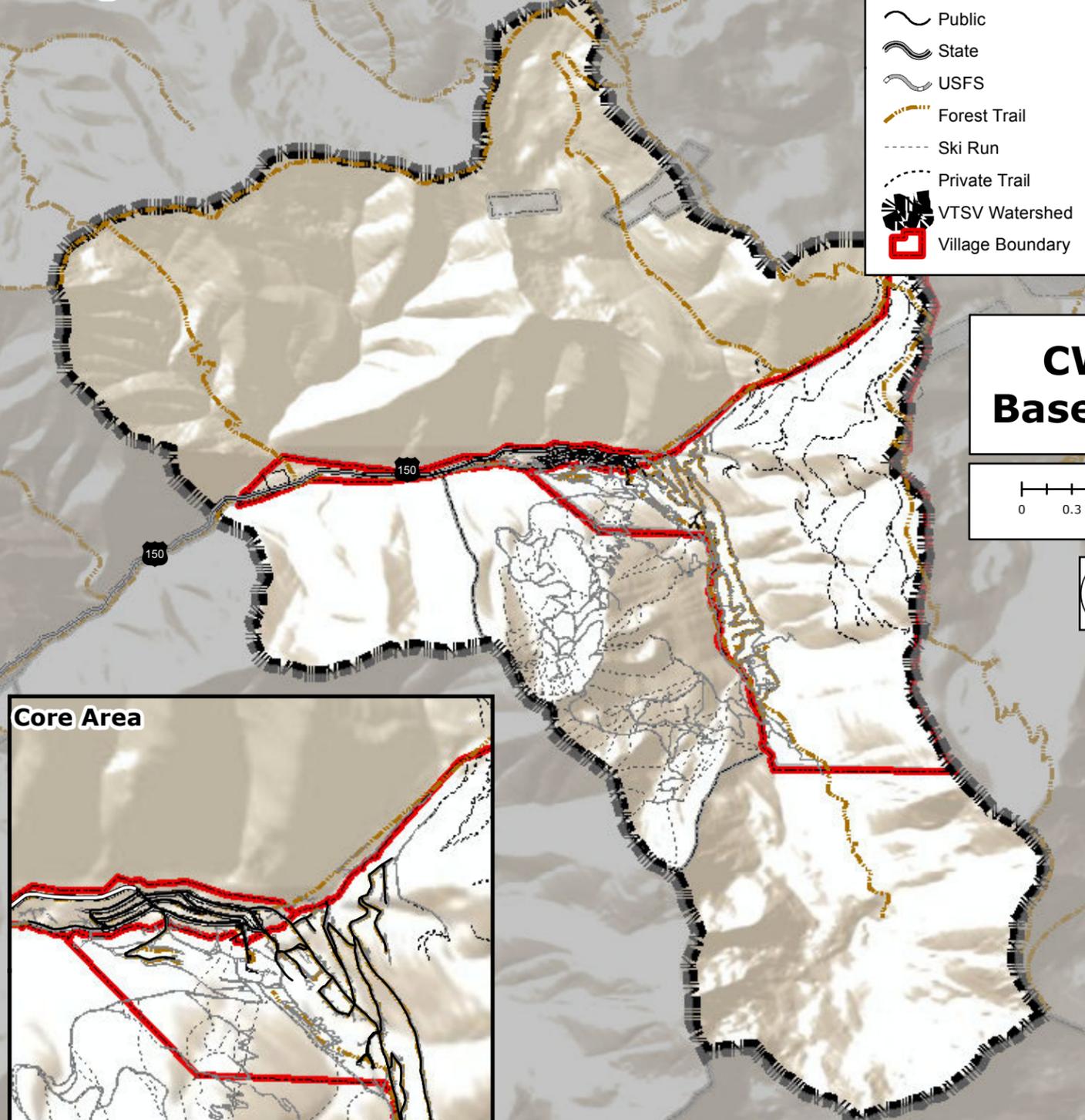
Sources: Esri, USGS, NOAA

## CWPP Base Maps



# Roads, Trails & Buildings Map #9

- Legend**
- Road**
- Road Ownership**
- Private
  - Public
  - State
  - USFS
  - Forest Trail
  - Ski Run
  - Private Trail
- VTSV Watershed
- Village Boundary

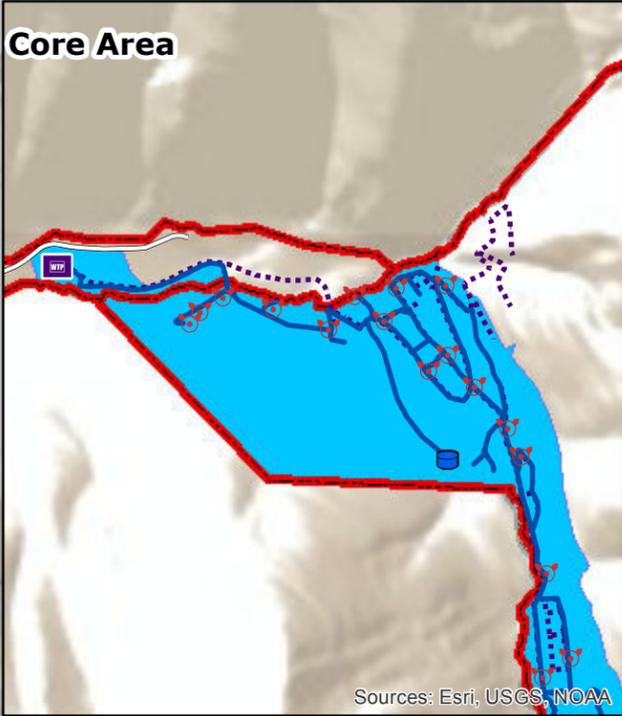
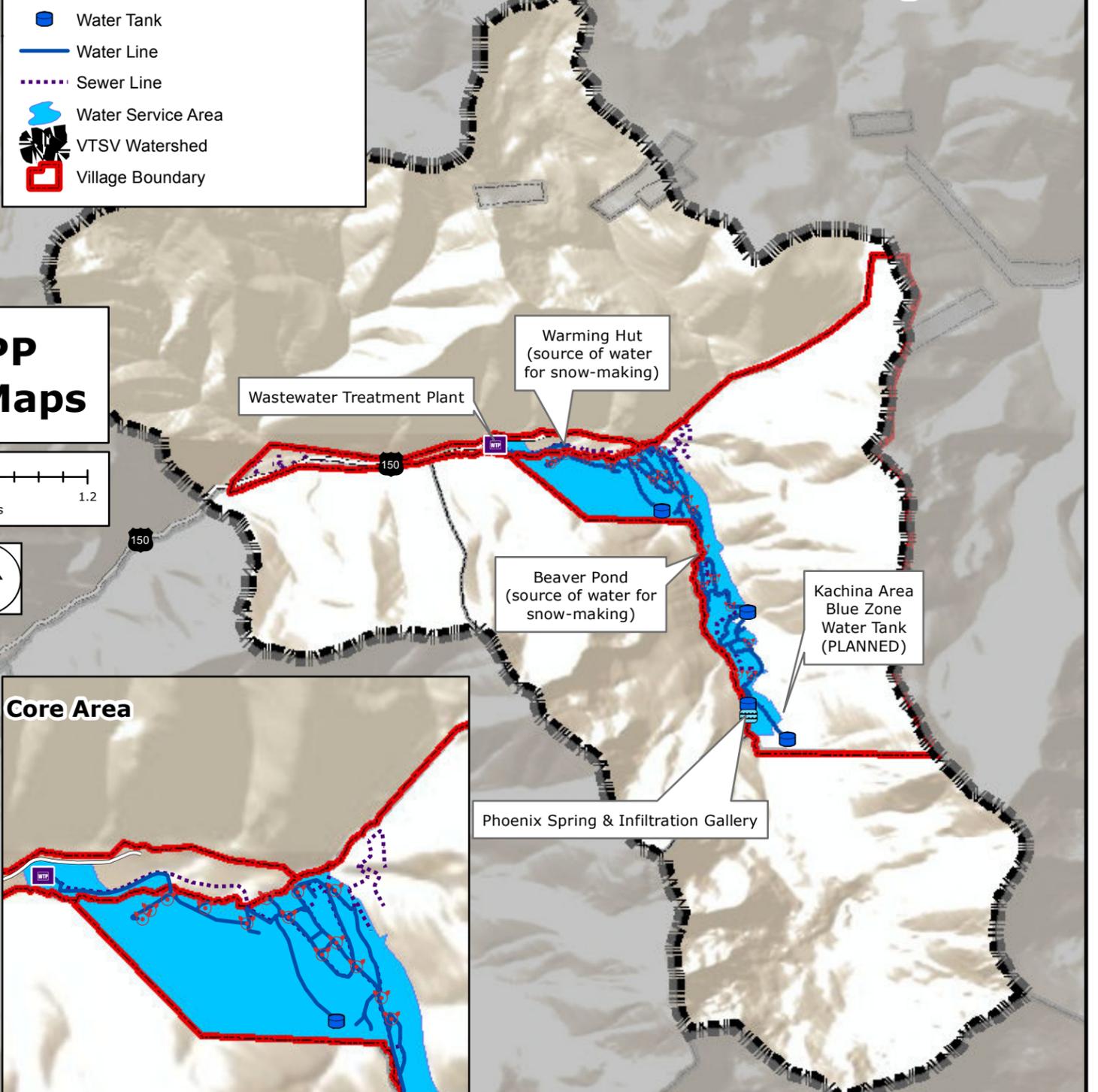


## CWPP Base Maps



# Water & Sewer Utilities Map #10

- Legend**
- hydrant
  - Phoenix Spring & Infiltration Gallery
  - Treatment Plant
  - Water Tank
  - Water Line
  - Sewer Line
  - Water Service Area
  - VTSV Watershed
  - Village Boundary



Warming Hut  
(source of water  
for snow-making)

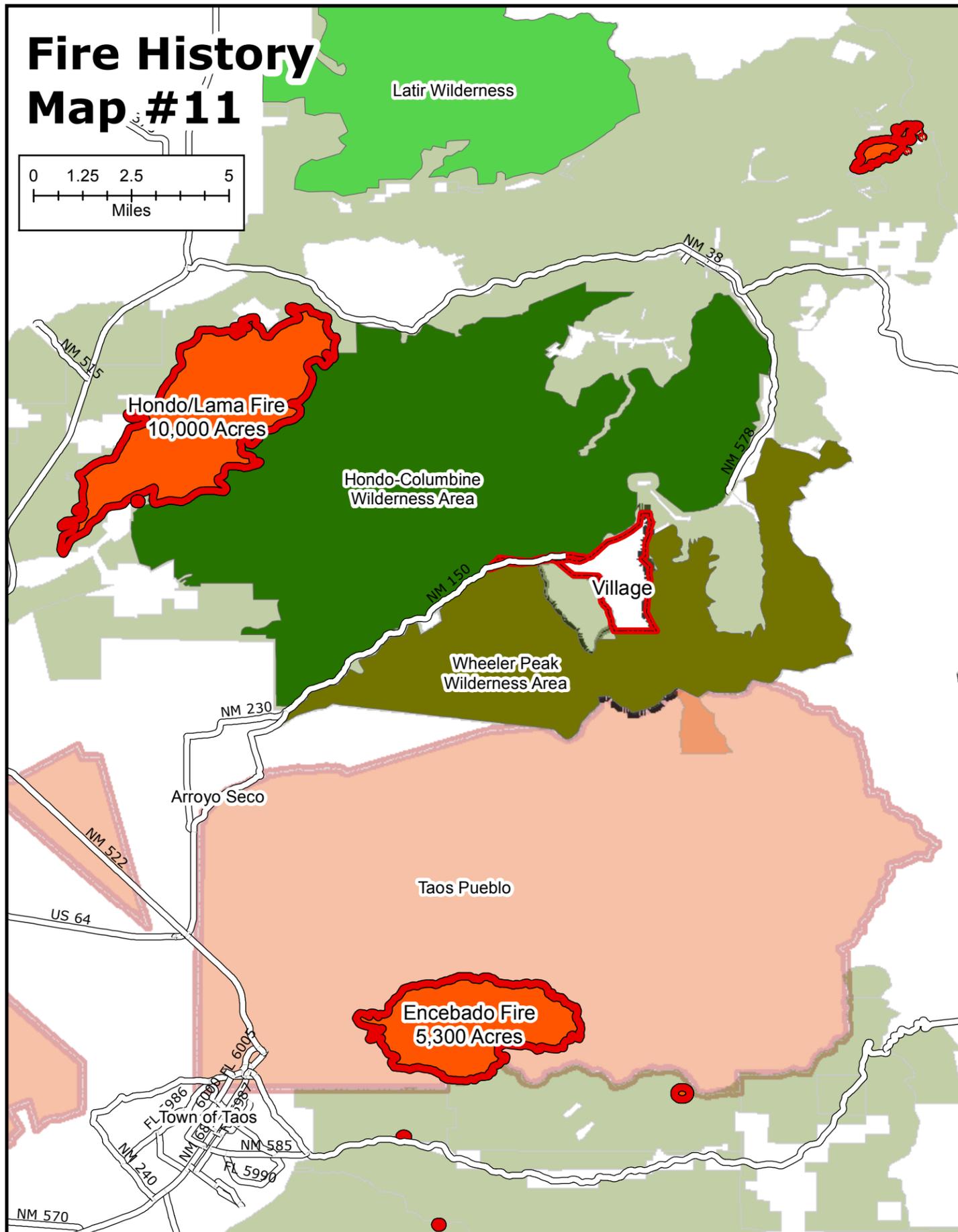
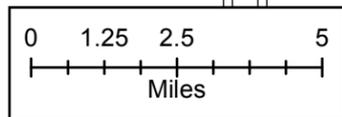
Wastewater Treatment Plant

Beaver Pond  
(source of water for  
snow-making)

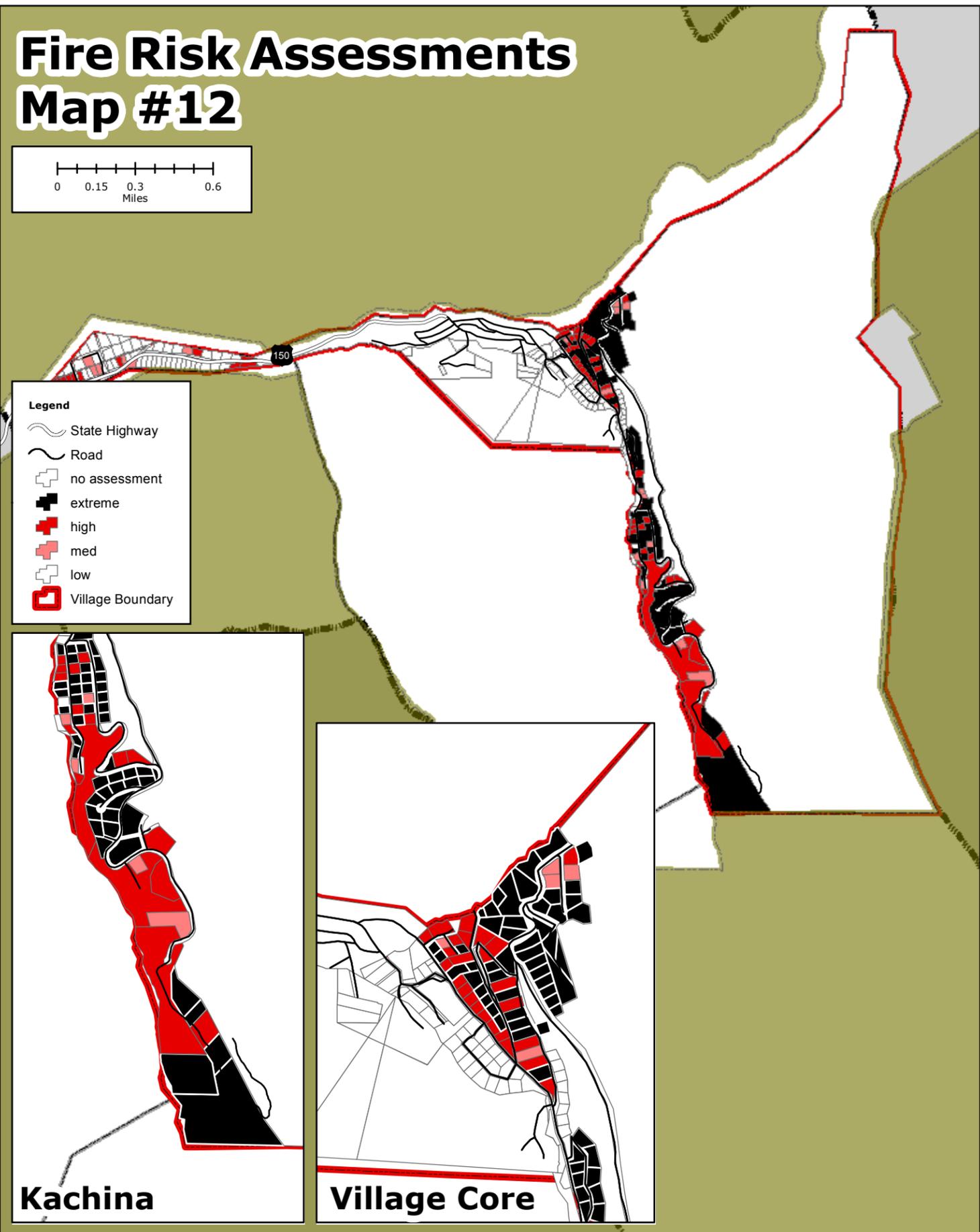
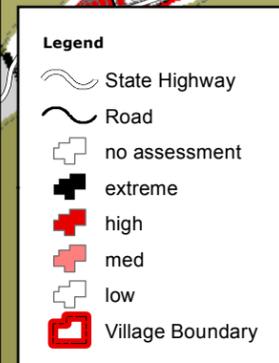
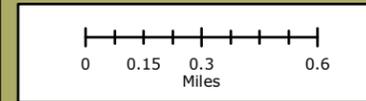
Kachina Area  
Blue Zone  
Water Tank  
(PLANNED)

Phoenix Spring & Infiltration Gallery

# Fire History Map #11



# Fire Risk Assessments Map #12



# Flame Length Map #13

# Crown Fire Activity Map #14

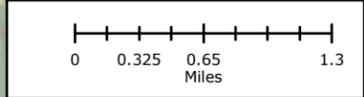
Hondo-Columbine  
Wilderness Area

Hondo-Columbine  
Wilderness Area

TSV, Inc.  
Permit Area

TSV, Inc.  
Permit Area

**CWPP  
Base Maps**



### Legend

Village Boundary

### Flame Length

#### Value

High : 166.382

Low : 0



Taos Pueblo

Sources: Esri, USGS, NOAA

### Legend

Village Boundary

### Crown Fire

#### Value

High : 3

Low : 0

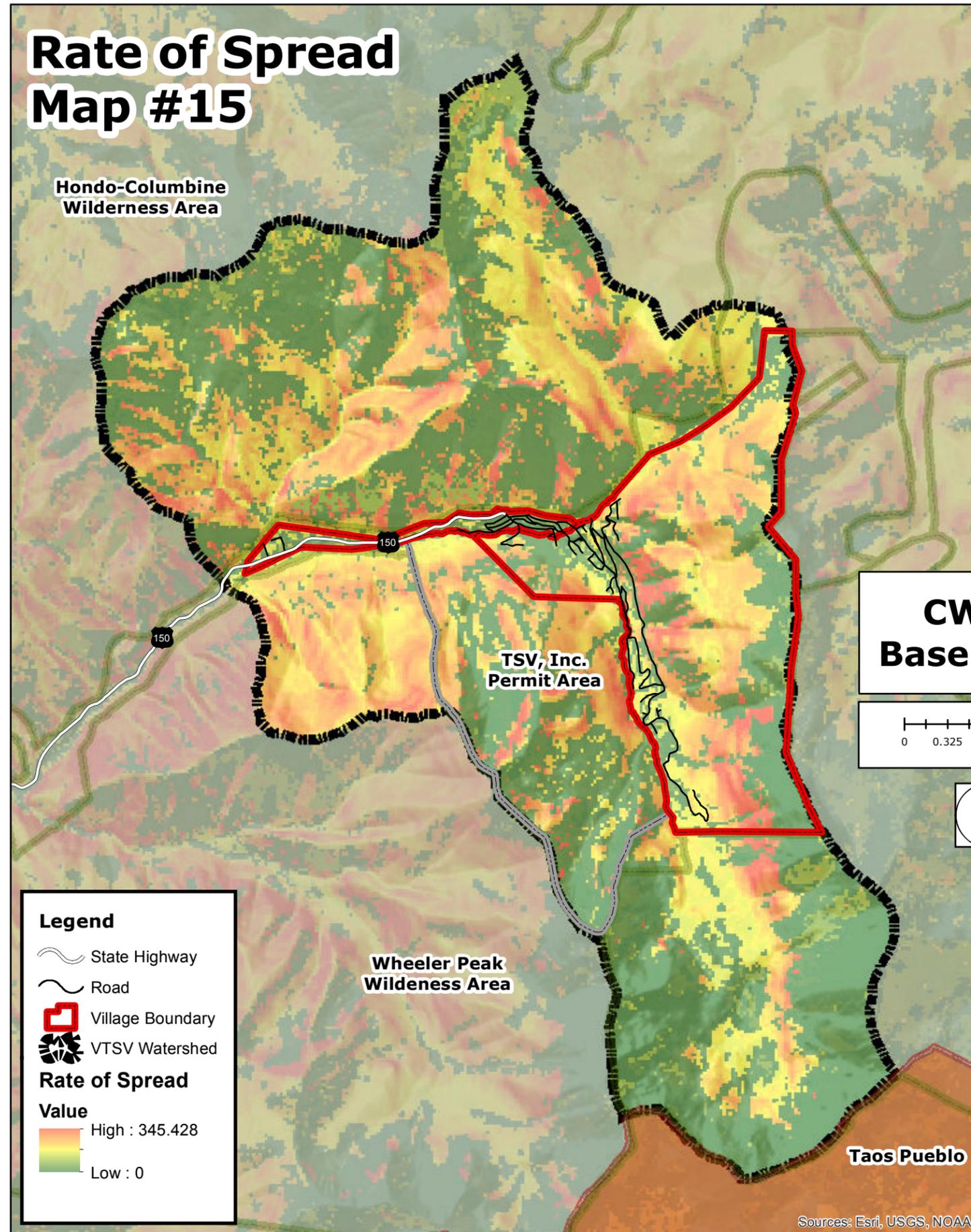


Taos Pueblo

Sources: Esri, USGS, NOAA

# Rate of Spread Map #15

Hondo-Columbine  
Wilderness Area



TSV, Inc.  
Permit Area

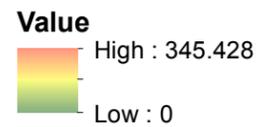
Wheeler Peak  
Wilderness Area

Taos Pueblo

## Legend

- State Highway
- Road
- Village Boundary
- VTSV Watershed

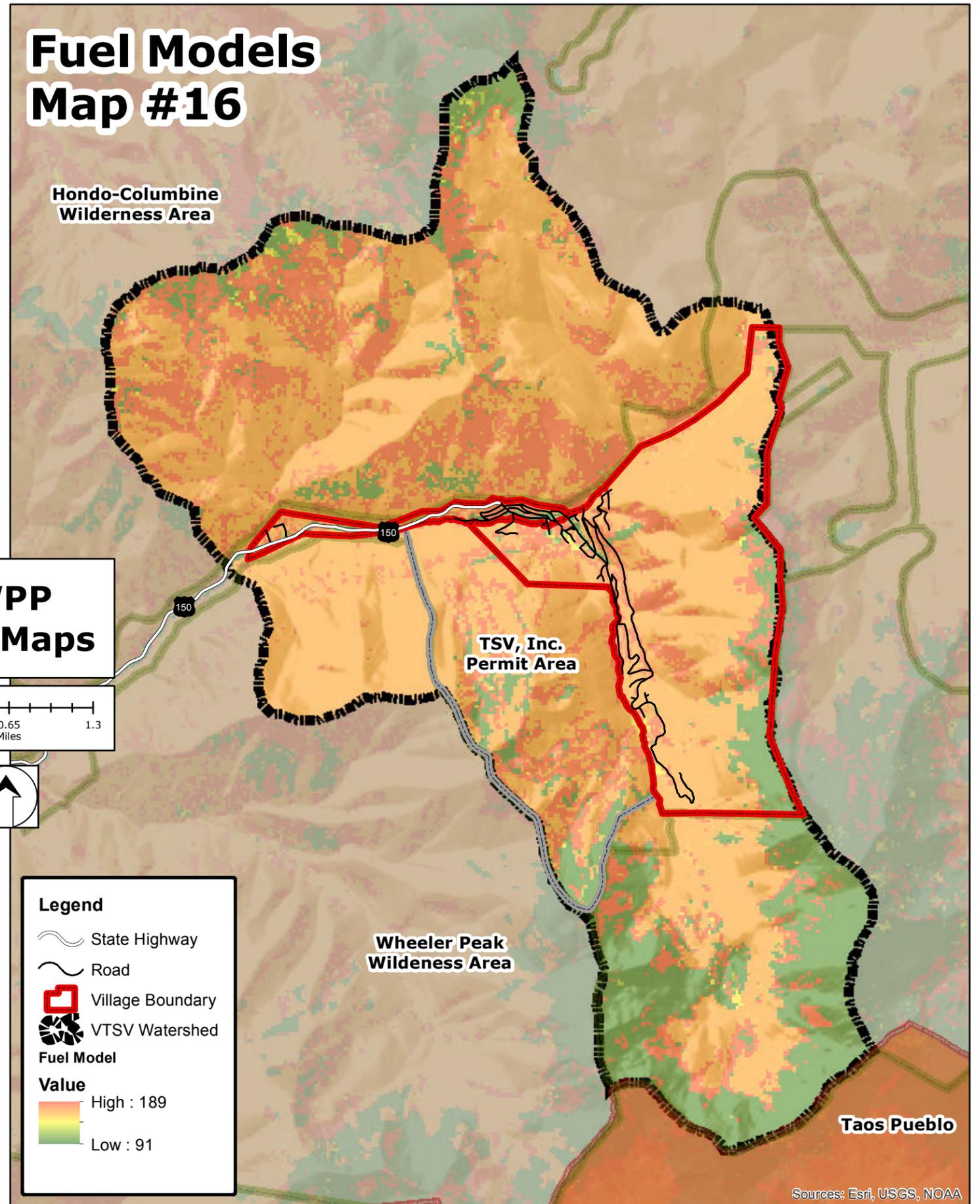
## Rate of Spread



Sources: Esri, USGS, NOAA

# Fuel Models Map #16

Hondo-Columbine  
Wilderness Area



TSV, Inc.  
Permit Area

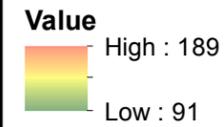
Wheeler Peak  
Wilderness Area

Taos Pueblo

## Legend

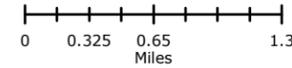
- State Highway
- Road
- Village Boundary
- VTSV Watershed

## Fuel Model



Sources: Esri, USGS, NOAA

## CWPP Base Maps



# **APPENDIX**

- **IMPLEMENTATION TABLE**
- **MAPS**
- **Q&A REGARDING DEFENSIBLE SPACE**
- **STAKEHOLDERS & COLLABORATORS**
- **FUNDING SOURCES**

# **Q&A REGARDING DEFENSIBLE SPACE**

## **Q1: HOW CAN I MAKE MY PROPERTY SAFE FROM A FIRE?**

- A1:** Improve your property with "DEFENSIBLE SPACE?"
- A2:** Inform any visitors or guests of the proper disposal of ash from your fireplace.
- A3:** Use fire resistant materials for new construction or renovations.
- A4:** Provide emergency contact information to guest and visitors. Put contact numbers of local public safety department on the refrigerator.
- A5:** Volunteer for the Village Fire Department.

## **Q2: WHAT IS DEFENSIBLE SPACE?**

**A1:** Defensible space is a series of buffer zones that surround a structure. Different fire prevention treatments are appropriate for each zone. There is the Access Zone, the Defensible Space Zone, and the Build Zone. Each zone is described below.

### **1. Access Zone (from 50 to 200 feet of the structure)–**

- a. Provide two way passage in driveways for emergency vehicles and turnarounds
- b. Identify your home and neighborhood with legible and clearly marked street names and numbers so response vehicles can rapidly find the location of the emergency. Include a driveway that is at least 14 ft wide with a vertical clearance of 13 ft. 6 in. (*per 1997 UFC, section 902.2.2.1*) to provide access for emergency apparatus.
- c. Make sure the driveway is clear of overhead electrical lines at least 15 feet high
- d. Install bridges and culverts across roads that can accommodate the weight and size of emergency vehicles

### **2. Defensible Space Zone (from 30 to 50 feet of the building) –**

- a. Remove anything that is combustible at least three feet away from buildings; manage the space to prevent fire,
- b. Remove dead vegetation and ladder fuels from the property, reduce connection between vegetation; create a "lean, clean, and green area."

### **3. Build Zone (from the structure to 30 feet)–**

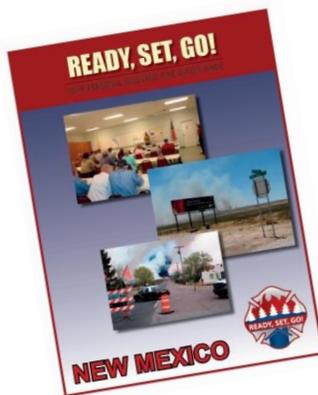
- a. Cover the eaves with fire resistant material,
- b. Use fire resistant building materials, including:
  - i. brick, cement, plaster, stucco and concrete masonry.

- ii. tempered and double pane glass windows can also make a home more resistant to the heat and flames of a wildfire
  - iii. Class A asphalt shingles, metal, tile and concrete roofing is also good protection for your home.
  - iv. A fire-resistant sub-roof can add an extra layer of protection.
- c. Use fire resistant exterior siding and roofing materials,
  - d. Use double pane or tempered glass,
  - e. Clean rain gutters regularly,
  - f. Firewood stacks should be away from the building,
  - g. Use fire resistant materials for decks; locate them away from vegetation,
  - h. Check propane tanks and locate them away from the building,
  - i. Talk to the local Building Official and staff at the Planning Department about zoning regulations and building code requirements before building, or tell your architect to contact the staff at the local government.

**A2:** Consider the building interior:

- a. Install smoke and carbon dioxide detectors,
- b. Properly install and maintain the wood stoves and fireplaces, ash and coal deposits,
- c. Install fire extinguishers and sprinklers,
- d. Post emergency phone numbers on the refrigerator,
- e. Create an escape plans and communications protocols and post them throughout the home,
- f. Use non-toxic paints and interior finishes,
- g. Keep an eye on candles, forced air heaters and space heaters.

**Many written resources are available from the Ready, Set, Go program, including door hangers and brochures.**



**Property owners should educate themselves with these resources and provide them to houseguests!**

# **STAKEHOLDERS & COLLABORATORS**

The Village collaborated with several stakeholders in the creation of the CWPP. The contributions of the stakeholders is outlined and described below.

- **Firewise Board of Directors**

The Village was designated as a Firewise Community / USA status in December, 2015. The Firewise Board of Directors is responsible for preparing an annual Work Plan to address the risks of a catastrophic forest fire. The Firewise Board completed several important projects, including:

- Completed fire risk assessments of each property within the Village,
- Dredged the "Beaver Pond" to allow a helicopter to fill buckets of water in the event of a wildland fire,
- Received a grant from State Farm Insurance Company to be used to thin out dead and dying trees and dead underbrush on the property around the Village Offices/Fire Department building,
- Joined the Colfax County Firewise Coalition,
- Purchased the Burn Boss air incinerator, two sirens, and computer software to send a text message to anyone within range of cell towers in the Village in the event of an immediate emergency situation (i.e., wildland fires, landslides, avalanches, mudslides, active shooter).The text message will also contain directions relating to the evacuation plan.

The Firewise Board reviewed the draft and final CWPP and recommended approval to the Planning & Zoning Commission and the Village Council on April 5, 2016. The Firewise Board will be responsible for overseeing the implementation of the objectives of the CWPP. The Board is the interface between the community, Village staff, and the Village Council in communicating with the public about goals, tasks, projects, activities, accomplishments and outcomes of the CWPP.

- **Village of Taos Ski Valley Volunteer Fire Department**

The local fire department is one of the most important stakeholders. Not only do they fight structure fires and forest fires, the **Healthy Forests Restoration Act** requires them to approve the CWPP. The Fire Department is the "first responder" to structure fires, forest fires, vehicles crashes, and wildfires within the District boundaries.

Volunteers will assist if requested for inspections of fire suppression systems and inspections (with the assistance of the state Fire Marshal's office) of sprinkler systems. The Director (also the Police Chief) helps the Village staff in building code review issues and designating fire lanes in roadway improvement plans.

There are twenty volunteers with ten active members who often participate in training and respond to calls for service. Volunteers are trained in vehicle extrication (e.g. - a vehicle crash with entrapment) and low and high angle rescue.

- **Village Council**

The Council appoints members of the Planning & Zoning Commission and to the Firewise Board. The Mayor and Council members would be responsible for funding emergency response plans, particularly for restoring drinking water resources and any other infrastructure that was damaged.

- **Planning & Zoning Commission**

The Commission reviewed the first and final drafts of the CWPP and endorsed it for approval by the Village Council. The Commission is empowered by state laws and Village Council ordinances to develop and approve master plans and to enforce development regulations. Commissioners will be asked to revise the Village zoning regulations and building code requirements to encourage and possibly mandate that all existing and new development comply with fire protection and defensible space standards.

- **Residents & Property Owners**

Property owners assume a risk in purchasing property among the high-alpine forest and consequently have a stake in protecting their (and adjacent) property from fire. Property owners are responsible for creating defensible space around their homes and businesses. They also pay high insurance rates as a result of living in a high risk fire area.

Residents serve on the Firewise Board, the Commission, and the Village Council. Property owners and residents were invited to attend public meetings conducted by the Planning & Zoning Commission and the Village Council to comment on the draft and final CWPP and to participate in the public education and outreach events sponsored by the Firewise Board. The most popular event is the annual 4<sup>th</sup> of July parade. Other public events are held on Labor Day and Firewise Preparedness Day.

- **Business Owners (Village)**

Business owners have a clear stake in protecting the community from a forest fire. Tourism and tourist facilities (e.g. - campgrounds, trails, fishing areas, and outdoor recreation), which constitutes the economic base of the Village, would most certainly be compromised as a result of a forest fire. TSV Inc., holds a Special Use Permit with the US Forest Service to operate the ski mountain. Although the ski runs are relatively safe from a fire due to glading and clearing, the aesthetic impacts would be disastrous and most certainly reduce tourism and ticket sales. Representatives of TSV, Inc. regularly attend meetings of the Firewise Board.

Business owners were also invited to attend public meetings to comment on the draft and final CWPP and to participate in the education events sponsored by the Firewise Board.

- **Taos Pueblo**

Although Taos Pueblo is not within the Upper Rio Hondo watershed, the Pueblo is located at the southern border of the Wheeler Peak Wilderness Area. The Pueblo shares similar concerns and risks related to forest fires. The Pueblo was invited to comment on the CWPP and participated regularly in the Taos County CWPP Core Team.

- **Neighborhood Associations**

Downstream communities have a great interest in preventing a forest fire in the upper Rio Hondo watershed. Post-fire debris and erosion could have disastrous consequences on water quality and irrigated agriculture. The Planner presented the CWPP to the Lower Des Montes Neighborhood Association in June 2016 and contacted other neighborhood associations downstream from the Village in order to collect input and recommendations. Unfortunately the Village was unable to present the CWPP to other neighborhood associations, but the Planner will continue to communicate with the neighborhood associations as the CWPP is implemented.

- **Forestry Contractors**

Contractors who cut and remove trees earn their living through contracts with government agencies and private property owners. The CWPP will attract investments and future contracts for forest thinning projects.

- **US Forest Service (Questa Ranger District)**

Representatives of the US Forest Service played a critical role in the CWPP. The staff of the Questa Ranger District reviewed and commented on the draft and final CWPP. The locations for forest treatments was identified and prioritized by the Zone Fire Management Officer.

- **NM State Forestry (Cimarron)**

New Mexico State Forestry contributed their specialized natural resource knowledge and technical expertise to the planning process, particularly in the areas vegetation management, assessment of values/risks, wildfire size/intensity probabilities and identifying funding strategies.

- **Kit Carson Rural Electric Cooperative**

Kit Carson is a stakeholder because they own and manage the overhead power lines located throughout the Village. Overhead lines can be a threat. Many forest fires are ignited by fallen power lines. Kit Carson was invited to review the CWPP and to work with the community in burying power lines with the financial resources of the Villages Franchise Agreement and the cooperation of private property owners.

- **New Mexico Chapter of The Nature Conservancy (Santa Fe)**

The Nature Conservancy (TNC) also provided comments on the CWPP. They provided valuable technical assistance and mapping support. TNC also plays a critical role in implementing the Taos County CWPP through their management of the Rio Grande Water Fund, which provided funding assistance to communities across the Rio Grande watershed for forest treatments.

TNC provides resources beyond technical assistance and the Rio Grande Water Fund. TNC is sponsoring several important studies that are, or will be, used to inform the CWPP and any future updates. These studies include the Fire History Study (in partnership with the Taos Ski Valley Foundation, the Village, Taos County, the US Geological Service, the US Forest Service – Carson National Forest), a Return on Investment Study (to quantify the costs and benefits of downstream water users to invest in upstream watershed restoration and water quality improvements), and a Wood and Biomass Study (to explore potential markets for wood products after forest treatments are completed).

- **Headwaters Economics**

Headwaters Economics is an independent, non-profit research group that is working with the Taos County CWPP Core Team to develop a fuels treatment optimization model utilizing geographic information system computer software. The mapping process will assist in identifying areas of highest risk by ranking individual parcels (150-200 acres) through an analysis of several interdependent variables, including proximity to roads & fire stations, ember spread/zones, fire behavior, etc. The recommendations will be used to help prioritize and refine the proposed areas for fuels treatments for the Village's CWPP.

- **Forest Stewards Guild**

The Forest Stewards Guild is a professional organization of foresters and allied natural resource professionals that practice and promote ecologically, economically, and socially responsible forestry. The Guild engages in education, training, policy analysis, research, and advocacy to foster excellence in stewardship, support practicing foresters and other natural resource professionals. They engage woodland owners, communities, and the public in the challenges of forest conservation and management. Staff of the Guild provided valuable comments to the first draft of the CWPP.

- **Taos Soil and Water Conservation District**

“The Taos Soil and Water Conservation District provides technical and financial assistance to local landowners to develop defensible space areas around homes and structures located in the wild land/urban interface. Utilizing a professional forestry consultant, the District implements fire prevention strategies as well as overall improvement of forest health in critical areas of Taos County. Because of current drought conditions, this program has grown exponentially in recent years.” – TSWCD web page - <http://tswcd.org/index.php/program/fire-prevention>

The Village Planner met with the Executive Director and included information about the technical and financial assistance provided by TSWCD in the CWPP.

- **Taos County**

Taos County is an essential partner in implementing the CWPP. The County is a focus of several forest fire prevention efforts, including grant writing, grants management, and coordinating regional initiatives in public education. The Village Planner and the Board President of the Firewise Board attended several meetings of the Taos County CCWP Core Team to participate in the 2016 update and to get feedback on the Village CWPP.

- **Community-Based Organizations**

Taos County is the home of many non-profit organizations whose mission is to protect natural resources, provide public education and vocational training. Some of the organizations include Amigos Bravos, Rivers & Birds, and the Rocky Mountain Youth Corps. These organizations were invited to public meetings and to review the draft CWPP.

- **Mutual Domestic Water Consumer Associations**

The Mutual Domestic Water Consumer's Associations (MDWCA) along the Rio Hondo are important stakeholders in the CWPP due to their need to protect the water quality and quantify from the Rio Hondo which provides drinking water to their members. The MDWCA along the Rio Hondo include that Lower Des Montes, Upper Des Montes, and Valdez. The first draft of the CWPP was presented to the Lower Des Montes and Valdez MDWCA on May 18, 2016. Members of each MDWCA were invited to participate in revisions to the draft CWPP and to participate in the post burn rehabilitation protocols due to their strong interest in protecting water resources after a wildfire.

- **Acequia Associations**

The Des Montes Acequia Association, Rebalse, and other acequias were invited to participate in the CWPP because of their interest in preserving water quality for the upper Rio Hondo watershed.

# **FUNDING SOURCES**

Not all of the objectives require money to be completed. Some require technical expertise; others require political support and diligent collaboration between Village staff and stakeholders. Some objectives, such as the proposed forest fuel treatments and purchasing fire-fighting equipment, require tens of millions of dollars. These efforts require collaboration among people and leveraging between financial resources. Some objectives, such as creating defensible space around private property, require investment by private property owners.

Potential funding opportunities for implementing the objectives are outlined according to local, regional state, and federal sources. The **Implementation Table** matches the most likely sources of funding to each objective.

## **LOCAL SOURCES**

Local funds are not likely going to be enough to pay for the full cost of implementing the objectives; however, these local sources of funding should be used to leverage grants and private funds for completing many of the objectives.

- Impact Fees

The Village Council adopted impact fees as a part of the zoning ordinance. Impact fees are imposed on new development to pay "it's fair and proportionate share of the costs to the Village of Taos Ski Valley associated with providing necessary public services and public facilities...that serve such development." (Ordinance 14-30. Section 22). Impact fees are charged for 1) roadway, pedestrian and drainage improvements, 2) parks & recreation / open space, 3) general government facilities, and 4) public safety. The fee is determined from an estimate of the total square footage of future development divided by the total estimated costs of the public services and public facilities. Water and sewer systems are not included in the impact fee ordinance. These estimates were prepared by the Village staff and are contained in the "Public Facilities Needs Assessment Report" which was approved by the Village Council on June 10, 2014.

- TIDD

The Village Council unanimously approved the formation of the TIDD and village residents and property owners overwhelmingly approved the TIDD in early 2015. The TIDD is a public finance "mechanism" whereby the developer provides the up-front bond financing for a variety of public infrastructure improvements in return for the dedication of future gross receipts taxes and property tax increments. The tax increments are used to re-pay the debt service of the bonds. A portion of the incremental taxes are dedicated to the local government to pay for the on-going operations and maintenance of the infrastructure after it has been developed and dedicated to the local government. The TIDD estimated over \$52 million in overall infrastructure needs.

- Kit Carson Franchise Agreement

The franchise agreement is a dedicated source of funds typically used to bury overhead powerlines within the Village road rights of way. Private property owners are responsible for burying electric lines between their building(s) and the line in the roadway.

The Village Council approved Ordinance 05-32 to grant Kit Carson Electric Cooperative a franchise to utilize the Village's roadways for providing electrical service to the Village. The franchise agreement expired on June 2015. The Village Council approved Resolution 2016-292 to extend the Franchise Agreement, including provisions for broadband, for four months until a long-term agreement could be approved.

### **REGIONAL SOURCES**

- **Taos Soil and Water Conservation District Private Lands Fuel Reduction Treatment Program**

Taos Soil and Water Conservation District (TSWCD) have funded 32 fuel-thinning projects since 2001 through the District Cost-Share Program. Project monies derive from a local mil levy. Only lands that pay the District assessment are eligible for cost-share assistance. If Village residents decide to no longer pay the mil levy, property owners will no longer be eligible for assistance. Applications are accepted at any time, with two funding cycles during the program year. Applications are reviewed after June 30 and December 31 every year. Applications are ranked by a site assessment. This assessment consists of resource priorities such as project location, on-site structures, fuel types, fuel densities and fuel hazard ratings. Once an application is approved by Taos TSWCD, the project is put out to bid to private contractors. Approved applicants may receive both technical assistance and funding for private property fuel reduction treatments. Waste material referred to as "slash", is usually piled and burned in the winter. Any useable firewood is left for the property owner.

- **The Nature Conservancy - Rio Grande Water Fund**

The Rio Grande Water Fund provides funding for the restoration of forested lands to secure clean water for communities in the Rio Grande watershed. This fund is managed by the Nature Conservancy, whose goal is "to generate sustainable funding over the next 20 years to proactively increase the pace and scale of forest restoration, including the most high-risk areas in the Rio Grande watershed."

The Rio Grande Water Fund uses a Request for Statements of Interest to identify possible projects within four focal areas. Proposals are reviewed by a Technical Review Panel to determine if eligibility criteria detailed in the Comprehensive Plan have been met. Eligible projects are added as approved to the Candidate List of Projects, available online at [www.nature.org/riogrande](http://www.nature.org/riogrande) - 2015 Annual Report. Rio Grande Water Fund.

- **TITLE III Forest Service Reserves**

This fund is managed by Taos County under the Secure Rural Schools and Community Self-Determination Act of 2000. These funds can be used to educate homeowners in "fire-sensitive" ecosystems and assistance in implementing home siting, home construction, and home landscaping to increase protection from wildfire. The Village has already benefited for this program through technical assistance provided by the Taos County WUI Coordinator.

### **STATE (AND STATE ADMINISTERED) SOURCES**

- **Conservation Partnership**

Programs such as this one are made possible because of the Conservation Partnership. The partnership is a consortium of governmental agencies that derive their enabling legislation from Federal, State and Local authority. Additional entities, such as advocacy groups, can also collaborate with the partnership. Taos Soil and Water Conservation District is a long standing member of the Conservation Partnership (1941). The partnership was created to promote conservation and stewardship regardless of jurisdiction, border or ownership.

- **State Fire Marshal**

The Village receives approximately \$90,000 per year for Fire Department operations (not including salaries), equipment purchases (e.g. - tools, PPE, fuel), and training. Unused funds are carried over into a vehicle replacement fund. Receiving the funds is contingent on the Village submitting an annual plan and reports. The amount of funding from the State Fire Marshal is determined by the Villages ISO Rating, currently at a level 6.

- **New Mexico Environment Department River Stewardship Program**

The River Stewardship Program funds projects that enhance the health of rivers by addressing the root causes of poor water quality and stream habitat. River Stewardship Program projects are distributed statewide. Projects are selected through a *Request for Proposals* using the state procurement system. Evaluation criteria ensure that projects are technically sound, community-based and stakeholder driven. Evaluation criteria favor projects that improve water quality, enhance fish and wildlife habitat, support local economies, and that reduce downstream flood hazard. The average project amount awarded in 2014 was \$180,000.

Eligible activities include:

design • permitting • construction • pre-and post-implementation monitoring • property acquisition (title must be held by a government entity) • supplies that are permanently affixed to the project • hourly wages for direct work on the project • equipment rental

Ineligible activities are:

education and outreach • salaries or percentage of salaries • wages for government employees • equipment or supplies that are not permanently affixed to the project • ongoing maintenance

[www.env.nm.gov/swgb/RiverStewards](http://www.env.nm.gov/swgb/RiverStewards)

- **New Mexico Youth Conservation Corps**

The Youth Conservation Corps (YCC) created by the Youth Conservation Corps Act of 1992. The mission of the YCC is to "Promote the education, success and well-being of the youth in our communities and provide community benefits of lasting value through the conservation and enhancement of New Mexico's natural, cultural and recreational resources." - NM YCC 2015 Annual Report

The 1992 Act outlines what types of project the YCC may fund. The types of projects most relevant to the CWPP are:

- preserve, maintain, and enhance natural resources by protecting air, fish, forest land, water, and wildlife,
- rehabilitate and improve natural areas
- assist with emergency operations, including fires, floods, and rescue of lost or injured persons;
- provide disaster relief,
- improve fire prevention,
- upgrade public lands and facilities,
- protection and enhancement of natural resources.

YCC grants are awarded through a competitive Request for Proposals process.

- **Forestry Division - Hazardous Fuels Treatments on Non-Federal Lands**

The Forestry Division of the Energy, Minerals and Natural Resources Department (EMNRD) manages the Hazardous Fuels Treatments on Non-Federal Lands (NFL). The NFL grant is used for removing hazardous fuels on private land that compliment fuel reductions on USFS land and when the area has been identified as a high priority areas within a CWPP. Individual properties must be "procured" through a competitive process, such as a Request for Proposals or a public notice prior to being considered as a part of the application. A 10% non-federal cash or in-kind match is required. EMNRD submits the highest scoring applications to the US Forest Service. Applications are accepted in March every year and may provide up to \$300,000 per application.

- **Forestry Division – Wildland-Urban Interface**

The Wildland-Urban Interface (WUI) program supports planning and implementation of hazardous fuel reductions that reduce the fire threat within the WUI. It emphasizes fuel reduction, information and education, and community and homeowner action. Applications are due in August of each year and may fund up to \$300,000 but require a 50% non-federal match of funds.

- **Forestry Division - Urban and Community Forestry Program**

This program provides technical assistance for development of local community forestry programs, tree care, training for professionals, planning and outreach efforts, and support of community events. Other programs include:

- grant funding for tree planting and support of local urban forestry programs,
- coordinating volunteer events and K-12 education opportunities.

- **Forestry Division - Invasive Plants**

This grant can be used for invasive plant management activities where noxious weeds threaten forest health. Applications should identify the noxious species that are identified on the NM Department of Agriculture's "Noxious Weed List" and are within a Cooperative Weed Management Area on non-federal lands. Projects may include weed management, mapping and inventory, monitoring, early detection and prevention, and awareness and education. A Request for Proposals is typically issued in August or September of every year. Applications require a 50% non-federal match.

- **Forestry Division – Re-Leaf Program**

The New Mexico Forest Re-Leaf Program has awarded more than \$500,000 to support tree planting projects in communities and schools across New Mexico. In 18 years, the Re-Leaf Program has funded the planting of more than 18,000 trees through 190 projects in communities and schools across the state. Annual applications are solicited in April and submittals are due in August. Trees must be planted on public land.

[www.emnrd.state.nm.us/SFD/ReLeaf/ReLeaf.html](http://www.emnrd.state.nm.us/SFD/ReLeaf/ReLeaf.html)

- **Forestry Division - Forest Health Initiative**

The Forest Health Initiative (FHI) is a cost share program that provides reimbursement funding for the improvement of forested lands to prevent forest health issues like bark beetle attacks and fungal infections. The applicant must provide a 30% match toward the total cost of the project. Grants may be awarded up to \$100,000.

A property owner is required to have a management plan prior to receiving funding. The FHI program can provide some funding to assist in the creation of a management plan, but the emphasis of the grant is on treating forested lands. Once a Stewardship Plan is in place, the landowner can begin the process of applying for treatment funding. The program is a first-come, first-served program and applications are considered in the order that they are received until the funding is fully allocated.

In order to participate in the cost-share program, landowners have to meet the following requirements:

- have a minimum of ten acres of land
- already have a NMSF approved forest management plan or be applying for management plan
- be able to fund the entirety of the project prior to being reimbursed
- accept the rates that are set in the application for cost-share assistance
- not have utilized any other federally funded cost-share funding on the same land area
- reimbursement will not exceed 70 percent of the total amount expended
- landowners are not to receive any compensation for material that is removed from the stand and should not financially benefit from the project itself
- projects must be maintained for ten years following completion of the project
- allow NMSF staff or their representatives access to the project location at any point needed or requested. This does not confer public access permission
- treat the resulting management slash in a manner that minimizes insect and disease issues and in accordance with the NMSF best management practices
- follow all of the NMSF best management practices unless an alternate practice has been applied for and approved
- land that is owned as a group, association, trust, or otherwise jointly owned is considered as a single property and landowner is subject to all limits and restrictions of a single landowner
- There is a program five (5) year maximum of \$100,000 for each landowner and property.

- **Land Conservation Tax Credits**

Tax credits are available to private land owners who apply a conservation easement on their property. The maximum tax credit is 50% of the appraised value of the donation and a maximum of \$250,000 per individual donor. Land conservation tax credits must be approved by the Energy, Minerals and Natural Resources Department Secretary in consultation with the Natural Lands Protection Committee. A taxpayer has a maximum of 20 years to fully use the tax credit following the taxable year in which the donation was made. Alternatively, the tax credit may be transferred (sold) to another taxpayer through a tax credit broker in minimum increments of \$10,000.

## **NATIONAL SOURCES**

### **FEDERAL GOVERNMENT**

#### **WaterSMART Program (Bureau of Reclamation)**

Through WaterSMART Grants Reclamation provides grants to irrigation and water districts, Tribes, States and other entities with water or power delivery authority. Projects should seek to conserve and use water more efficiently, increase the use of renewable energy, protect endangered species, or facilitate water markets. Projects are selected through a competitive process and the focus is on projects that can be completed within 24-36 months that will help sustainable water supplies in the Western United States.

- **Drought Response Program**

Reclamation's Drought Response Program supports a proactive approach for addressing drought by providing assistance to water users to conduct drought contingency planning and to take actions that build long-term resiliency to drought. The program consists of two funding areas. Drought Contingency Planning funding will be made available to non-Federal entities to develop a new drought contingency plan or update an existing plan. Drought Resiliency Project funding will be made available to implement small-scale projects to increase the reliability of water supplies; improve water management; implement systems to facilitate the voluntary sale, transfer or exchange of water; and benefit fish and wildlife and the environment.

- **Title XVI Program**

Title XVI is Reclamation's water recycling and reuse program. Reclamation works with non-Federal partners to identify and investigate opportunities to reclaim and reuse wastewater and naturally impaired ground and surface water in the 17 Western states and Hawaii. Entities with Congressionally authorized projects may also seek competitive, cost-shared funding to plan, design and construct projects.

- **Basin Studies**

Basin Studies are basin-wide efforts to evaluate and address the impacts of climate change. Funding is available for comprehensive water studies that define options for meeting future water demands in Western river basins where imbalances in water supply and demands exist or are projected.

- **Cooperative Watershed Management Program**

This program supports improved water quality, ecological resilience and reduced conflicts over water through collaborative efforts by local watershed groups. Financial assistance is provided to form new watershed groups, expand existing

watershed groups and/or conduct one or more projects in accordance with the goals of watershed groups.

- **Landscape Conservation Cooperatives (Desert and Southern Rockies LCCs)**

Landscape Conservation Cooperatives are partnerships of governmental and non-governmental entities who work collaboratively to identify best practices, connect efforts, identify science gaps and avoid duplication through conservation planning and design. Reclamation is involved in the management of the Desert and Southern Rockies LCCs. Funding is provided for non-federal entities to develop applied science tools for use by the LCCs or partner with other federal agencies in addressing science needs

- **2014 Farm Bill**

The New Mexico Association of Conservation Districts manages a Technical Service Provider Program in New Mexico to provide services authorized under the United States Department of Agriculture's National Farm Bill Programs. NMACD administers this Program in cooperation with USDA-Natural Resources Conservation Service, New Mexico Department of Agriculture, New Mexico Soil and Water Conservation Commission, and the Soil and Water Conservation Districts in New Mexico.

- **Collaborative Forest Restoration Program**

Local governments are eligible for a cost-share grant that reduces the threat of wildfire, improves watershed conditions, and provides jobs and training to local communities. The purposes of the Collaborative Forest Restoration Program are:

1. To promote healthy watersheds and to reduce the threat of large, high intensity wildfires, insect infestation, and disease.
2. To improve the functioning of forest ecosystems and to enhance plant and wildlife biodiversity by reducing the unnaturally high number and density of small diameter trees on forest lands.
3. To improve communication and joint problem solving among individuals and groups who are interested in restoring the diversity and productivity of forested watersheds.
4. To improve the use of, or add value to, small diameter trees.
5. To encourage sustainable communities and sustainable forests through collaborative partnerships whose objective is forest restoration.
6. To develop, demonstrate, and evaluate ecologically sound forest restoration techniques.

Individual awards range from \$120,000 to \$360,000. The CFRP Technical Advisory Panel, a Chartered Federal Advisory Committee, will evaluate CFRP grant applications and provide recommendations to the Secretary of Agriculture on which ones best meet the program objectives. The Secretary of Agriculture will make the final decision on project funding. The budget must not exceed \$450,000 over 4

years (including match). Total annual costs must not exceed \$150,000 (including match). Individual grant awards will not exceed \$360,000 in Forest Service funding over 4 years, and not more than \$120,000 in any one year. As a condition of award the applicant must provide a non-federal match of 20% of the total costs of the project.

- **Stewardship Contracting**

The 2013 Farm Bill included permanent approval for stewardship contracting authority. Stewardship contracting helps achieve land management goals while also meeting local and rural community needs for economic sustainability. Contracts focus on desired end results, or ecological outcomes of projects, rather than the amount of wood removed.

[www.fs.fed.us/restoration/Stewardship\\_Contracting/faqs.shtml](http://www.fs.fed.us/restoration/Stewardship_Contracting/faqs.shtml)

- **National Forest Foundation**

Through its on-the-ground conservation programs, the National Forest Foundation supports action-oriented projects that directly enhance the health and well-being of America's National Forests and Grasslands and that engage the public in stewardship. Nonprofit organizations dedicated to addressing natural resource issues on National Forests and Grasslands can apply for support to complete projects through three distinct grant programs.

[www.nationalforests.org/grant-programs](http://www.nationalforests.org/grant-programs)

- **Fire Prevention and Safety Grants (FEMA)**

The Fire Prevention and Safety Grants (FP&S) are part of the Assistance to Firefighters Grants (AFG), and are administered by the Federal Emergency Management Agency (FEMA). FP&S Grants support projects that enhance the safety of the public and firefighters from fire and related hazards. The primary goal is to target high-risk populations and reduce injury and prevent death. Eligibility includes fire departments, local organizations, and/or community organizations recognized for their experience and expertise in fire prevention and safety programs and activities. Private non-profit and public organizations are also eligible. The typical application window for these grants is 30 days.

- **Pre-Disaster Mitigation Grant Program (FEMA)**

The Department of Homeland Security, which includes the Federal Emergency Management Agency (FEMA) and the U.S. Fire Administration (USFA), administers [Pre-Disaster Mitigation Planning and Project Grants](#). This competitive grant program, known as PDM, provides funds and technical assistance to local governments to help develop multi-hazard mitigation plans and to implement projects identified in those plans. Individual communities can apply for PDM grants, but they are advised to work with their state contacts in emergency management or mitigation as they are developing their plans and projects.

- **Hazard Mitigation Grant Program**

The [Hazard Mitigation Grant Program](#) (HMGP) provides grants to local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. The HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Communities interested in the HMGP should contact their State Hazard Mitigation Officer (SHMO). A SHMO serves as the state-level connection to various grants and assistance related to natural hazard preparedness and planning as well as some post-disaster activities.

- **Wildland Urban Interface Community and Rural Fire Assistance**

[This program](#) is designed to implement the National Fire Plan and assist communities at risk from catastrophic wildland fires. The program provides grants, technical assistance, and training for community programs that develop local capability, including:

- Assessment and planning, mitigation activities, and community and homeowner education and action;
- Hazardous fuels reduction activities, including the training, monitoring or maintenance associated with such hazardous fuels reduction activities, on federal land, or on adjacent nonfederal land for activities that mitigate the threat of catastrophic fire to communities and natural resources in high risk areas;
- Enhancement of knowledge and fire protection capability of rural fire districts through assistance in education and training, protective clothing and equipment purchase, and mitigation methods on a cost share basis. Secure Rural Schools and Community

- **Clean Water Act - 319 Grants (USDA)**

Under Section 319, states, territories and tribes receive grant money that supports a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects and monitoring to assess the success of specific nonpoint source implementation projects.

Section 319(h) funding decisions are made by the states. States submit their proposed funding plans to EPA. If a state's funding plan is consistent with grant eligibility requirements and procedures, EPA then awards the funds to the state.

- **Natural Resources Conservation Service - Emergency Watershed Protection Program (USDA)**

The purpose of the Emergency Watershed Protection (EWP) Program was established to respond to emergencies created by natural disasters. The Program is designed to relieve imminent hazards to life and property caused by floods, fires, drought, windstorms, and other natural occurrences. The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) administers the EWP Program.

Public and private landowners are eligible for assistance. The Program may pay up to 75 percent of the construction cost of emergency measures. The remaining 25 percent must come from local sources and can be in the form of cash or in-kind services.

[www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/ewp/](http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/ewp/)

- **Natural Resources Conservation Service – Environmental Quality Incentives Program (EQIP)**

EQIP provides financial and technical assistance in order to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation or improved or created wildlife habitat.

Eligible program participants receive financial and technical assistance to implement conservation practices, or conservation planning that addresses natural resource concerns on their land. Payments are made to participants after conservation practices and activities identified in an EQIP plan of operations are implemented. Contracts can last up to ten years.

Agricultural producers and owners of non-industrial private forestland are eligible to apply for EQIP. Eligible land includes cropland, rangeland, pastureland, non-industrial private forestland and other farm or ranch lands.

Applicants must:

- Control or own eligible land
- Comply with adjusted gross income limitation (AGI) provisions
- Be in compliance with the highly erodible land and wetland conservation requirements
- Develop an NRCS EQIP plan of operations

<http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/financial/eqip/?cid=stelprdb1242633>

- **Fire Management Assistance Grant (FEMA)**

Fire Management Assistance is available to local governments for the mitigation, management, and control of fires on publicly or privately owned forests or grasslands, which threaten such destruction as would constitute a major disaster. The Fire Management Assistance declaration process is initiated when a State submits a request for assistance to the Federal Emergency Management Agency (FEMA) Regional Director at the time a "threat of major disaster" exists. The entire process is accomplished on an expedited basis and a FEMA decision is rendered in a matter of hours.

The Fire Management Assistance Grant Program (FMAGP) provides a 75 percent Federal cost share and the State pays the remaining 25 percent for actual costs. Before a grant can be awarded, a State must demonstrate that total eligible costs for the declared fire meet or exceed either the individual fire cost threshold - which applies to single fires, or the cumulative fire cost threshold, which recognizes numerous smaller fires burning throughout a State.

Eligible firefighting costs may include expenses for field camps; equipment use, repair and replacement; tools, materials and supplies; and mobilization and demobilization activities.

[www.fema.gov/fire-management-assistance-grant-program](http://www.fema.gov/fire-management-assistance-grant-program)

- **Assistance to Firefighters Grants - FEMA**

The primary goal of the Assistance to Firefighters Grants is to enhance the safety of the public and firefighters with respect to fire-related hazards by providing direct financial assistance to eligible fire departments, nonaffiliated Emergency Medical Services (EMS) organizations, and State Fire Training Academies (SFTA) for critically needed resources to equip and train emergency personnel to recognized standards, enhance operations efficiencies, foster interoperability, and support community resilience.

[www.fema.gov/welcome-assistance-firefighters-grant-program](http://www.fema.gov/welcome-assistance-firefighters-grant-program)

- **Staffing for Adequate Fire & Emergency Response Grants (SAFER)**

The Staffing for Adequate Fire and Emergency Response (SAFER) Grants was created to provide funding directly to fire departments and volunteer firefighter organizations to help them increase the number of trained, "front line" firefighters.

[www.fema.gov/welcome-assistance-firefighters-grant-program](http://www.fema.gov/welcome-assistance-firefighters-grant-program)

- **Chiefs' Joint Landscape Restoration Partnership**

This grant is a multi-year partnership between the U.S. Forest Service and the Natural Resources Conservation Service to improve the health and resiliency of forest ecosystems where public and private lands meet across the nation.

#### NATIONAL ORGANIZATIONS

- **The International Association of Fire Chiefs (IAFC) and American International Group, Inc. (AIG)**

These organizations offer direct funding no-cost share grants of up to \$1,000 to help our members with Ready, Set, Go! implementation and outreach. They also offer two different grants to enhance community fuels mitigation programs and educate their community. Applicants must be members of the Ready, Set, Go! Program

- **Fire Prevention and Safety Grants**

The Fire Prevention and Safety Grants are part of the Assistance to Firefighters Grants, and are administered by the Federal Emergency Management Agency (FEMA). FP&S Grants support projects that enhance the safety of the public and firefighters from fire and related hazards. The primary goal is to target high-risk populations and reduce injury and prevent death. Private non-profit and public organizations are eligible.

- **Ski Conservation Fund**

The National Forest Foundation's Ski Conservation Fund gives ski areas and lodges an easy way for guests to be stewards of the lands they enjoy. Ski-related businesses collect small, voluntary donations from their guests to support conservation and restoration work on local National Forests. Together with businesses and forest visitors, we meet local conservation challenges—whether improving wildlife habitat, securing riverbanks, planting native seeds, or fixing trails. Every dollar contributed by guests is matched by the NFF with \$0.50, which increases the impact of this signature program.

<https://www.nationalforests.org/get-involved/stewardship-funds>

- **Rocky Mountain Elk Foundation - Habitat Stewardship Program**

The RMEF helps fund and conduct a variety of projects to improve essential forage, water, cover and space components of wildlife habitat, and supports research and management efforts to help maintain productive elk herds and habitat.

**ALL GRANT INFORMATION SHOULD BE REVIEWED FOR ELIGIBILITY, APPLICABILITY, DEADLINES, FUNDING LIMITS, ETC.**