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14.0 Tonopah

14.1 Risk and Hazard Assessment

Tonopah is located on the border of Nye and Esmeralda Counties on US Highway 95. The town of 2,400 people is situated at 6,000 feet in elevation in the San Antonio Mountains. The risk/hazard assessment resulted in classifying Tonopah **Low Community Hazard** category (37 points). The hazard rating was primarily attributed to good access, sparse fuels, and ignition resistant building materials. A summary of the values that contribute to this hazard rating is included in Table 14-2.

14.1.1 Community Design

Tonopah is characterized as a wildland-urban interface condition, with a clear line of demarcation between building structures and wildland fuels. Wildland vegetation typically does not continue into the developed areas. Most of the 848 houses observed were on parcels less than one acre in size. Fifty two houses were on parcels between one and ten acres in size (Figure 14-1).

- **Roads**: US Highway 95 is the primary access through the community. This road is at least 24-feet wide. Some of the secondary roads are on grades steeper than five percent but have adequate turnaround space for fire suppression equipment.
- **Signage**: Street signs were visible on approximately 75 percent of the 74 residential streets observed.

Addresses were visible on 82 percent of the houses observed. The presence of street signs and clearly visible building addresses are an important aid for fire and emergency responders not familiar with the area.

- **Utilities**: The utilities are both above and below ground. Power line corridors have been properly maintained to minimize wildfire damage to electric utilities and reduce the possibility that sparks created by electric utilities will start a fire in adjacent vegetation.

14.1.2 Construction Materials

Ninety four percent of the homes observed in the interface area were built with ignition resistant siding materials. Ninety eight percent of the homes had fire resistant roofing materials such as composition roofing, metal, or tile. Fourteen percent of the homes observed had unenclosed balconies, porches, decks, or other architectural features that could create drafty areas where firebrands can accumulate, smolder, and ignite, rapidly spreading fire to the home.

14.1.3 Defensible Space

Almost all of the homes (99 percent) met the minimum recommended defensible space guidelines to help protect the home from damage or loss during a wildfire.

14.1.4 Suppression Capabilities

Wildfire Protection Resources

At the time of the interview, the Tonopah Volunteer Fire Department was staffed by one paid firefighter and 27 volunteer firefighters of one fire station in Tonopah. Upon retirement of the fire chief, the Tonopah Town Board designated the volunteer fire organization to absorb the chief's duties into the current volunteer staff (R. Elliott, Chief TVFD, October 2004).

Table 14-1 lists the types of wildfire resources, cooperating partners, and equipment available to Tonopah in the event of a reported wildland fire.

Table 14-1. Tonopah Initial Attack Wildfire Suppression Resources

Type of Equipment	Amount of Equipment	Cooperating Partner (Resource Location)

Type 6 Engine Type I Engine	1 1	Tonopah Volunteer Fire Department (Tonopah)
Source: Personal conversation with Chief Bruce Woodworth, Tonopah FD (June, 29 2004)		

Additional resources are available from Hadley, Mina, Goldfield, or Hawthorne dispatched from the Central Nevada Interagency Dispatch Center. Fire crews from the Nevada Division of Forestry Tonopah Conservation Camp are dispatched from the Sierra Front Interagency Dispatch Center.

Water Sources and Infrastructure

Water availability for fire suppression in Tonopah includes.

- 500 gpm hydrants within 500 feet of structures,
- One million-gallon tank, and
- Three 500,000-gallon tanks.

The water system operates on gravity and electrical pumps. There are backup emergency generators available to run the pumps.

Detection and Communication

Fires are reported in the Tonopah area through.

- Calling 911 to the Nye County Sheriff's Office in Tonopah, and
- A community siren.

Fires are communicated to fire response personnel through the use of radios and pagers through the Nye County Sheriff Dispatch in Tonopah.

The radio frequency is compatible with neighboring agencies and the fire department has access to state mutual aid frequencies. There are some gaps in radio coverage east of the community.

Fire Protection Personnel Qualifications

All of the volunteer firefighters had been trained to State Fire Marshall Firefighter I and II standards and have received basic wildland fire behavior training (S-190).

Work Load

The Tonopah Volunteer Fire Department responded to two wildland/brushfire calls in 2003.

Financial Support

Financial support for the Tonopah Volunteer Fire Department comes from the Tonopah General Fund.

Community Preparedness

Nye County has an active Local Emergency Planning Committee and has adopted an emergency plan, a disaster plan, and an emergency evacuation plan. The Tonopah Volunteer Fire Department maintains a pre-attack plan to respond to fire incidents.

The fire department reviews development plans and sends out annual reminders to residents on fire regulations and suggestions for reducing fire risk.

14.1.5 Factors Affecting Fire Behavior

The south end of the community is situated between Brougher Mountain, Mt. Oddie, Rushton Hill, Golden Mountain, and Heller Butte where the slopes are between eight and twenty percent with varied aspects. The north portion of the community is situated on relatively flat topography with a west aspect. There is no predictable wind direction, winds blow from any direction, anytime of day or season.

Fuels in the area are light to medium, typically less than one ton per acre consisting of greasewood, rabbitbrush, and ephedra. The shrubs are typically one to two feet tall spaced three to five feet apart. Ground fuels consist of cheatgrass, Indian rice grass, halogeton, and salt grass. The overall interface fuel hazard condition was recorded as a low.

14.1.6 Fire Behavior Worst-case Scenario

The worst-case scenario would occur during a year with above normal precipitation and above normal annual grass production. A fire starting northwest of the community could be driven by strong afternoon winds through annual grasses and southward up the wide canyon in which the town lies. The fire would not easily move through the community due to numerous paved streets and dirt roads.

14.1.7 Ignition Risk

Tonopah has a low potential for fire ignition. The primary risks would be lightning, off-road vehicles, and human carelessness. There have been no recorded fire ignitions on public lands within ten miles of Tonopah.

14.2 Previous Site Assessment Summary

The Bureau of Land Management March 2003 assessment describes a low threat of catastrophic wildfire in Tonopah. The BLM recommended the following activities:

- Monitor annual fuel production and move additional resources into the area during years with above normal grass production.
- Train and equip the Tonopah Volunteer Fire Department for wildland suppression.
- Establish an evacuation and contingency plan with the Tonopah Volunteer Fire Department and Nye County Sheriff Department.
- Establish a fire safe community program focusing on defensible space and home protection.

14.3 Risk and Hazard Reduction Recommendations, Roles, and Responsibilities

The Tonopah risk and hazard reduction recommendations address the primary concern regarding community coordination and training efforts that could be initiated to enhance fire safety in Tonopah.

14.3.1 Defensible Space Treatments

Defensible space treatments are an essential first line of defense for residential structures. The goal of the treatment is to significantly reduce or remove vegetation within a prescribed distance from structures. (Specific guidelines for defensible space are dependent on fuel type and topography and are given in Appendix E.) Defensible space reduces fire intensity and decreases the potential for loss or damage to structures in the event of an oncoming wildfire.

Property Owner Responsibilities

- Remove, reduce, and replace vegetation around homes according to the guidelines in Appendix E. This area should be kept:
    - **Lean**: There are only small amounts of

flammable vegetation,
  - **Clean**: There is no accumulation of dead vegetation or other flammable debris, and
  - **Green**: Existing plants are healthy and green during the fire season.
- Maintain the defensible space condition as needed.
- Immediately remove cleared vegetation to an approved disposal site when implementing defensible space treatments. This material dries quickly and presents a fire hazard if left on site.
- Clear around propane tanks for a minimum distance of ten feet and maintain this area free of accumulated vegetation and combustible materials.
- Remove flammable materials and other debris from the defensible space.
- Store lumber, firewood, and other flammable materials a minimum distance of thirty feet from structures.
- Mow or remove brush, weeds, and other flammable vegetation growing against wood fences in the community.
- Maintain the area beneath unenclosed wood decks and porches free of weeds and flammable debris.

14.3.2 Public Education

Public education focused on increasing community fire safety is critical. A program that explains fire safe measures in clear and emphatic terms will have an impact on residents in the wildland-urban interface. Informed community members will be more inclined to take actions to effectively reduce fuels and other wildfire hazards around their homes and in their neighborhoods.

Tonopah Volunteer Fire Department Responsibilities

- Contact the Bureau of Land Management Battle Mountain Field Office and the University of Nevada Cooperative Extension for assistance with public education programs.
- Distribute copies of the publication *"Living with Fire"* to all property owners. This publication is free of charge. Copies can be requested from the University of Nevada Cooperative Extension.

14.3.3 Equipment and Training

Resources and training for wildfire is a safety issue for firefighters as well as the community. The volunteer fire department needs brush training and equipment to safely do

their job.

Tonopah Volunteer Fire Department Responsibilities/Nye County

- Upgrade personal protection equipment for wildland firefighting. Personal protection equipment includes hard hats, goggles, gloves, fire shelters with cases, and Nomex clothing.
- Obtain wildland firefighting equipment such as Pulaskis, shovels, and McLeods.
- Continue to provide basic wildland firefighter training through annual attendance at a Bureau of Land Management Wildland Firefighter Training for volunteer firefighters or other training opportunities.
- Ensure that wildfire training and equipment conforms to the National Wildfire Coordinating Group 310-1 standards.

Nye County Responsibilities

- Assist the Tonopah VFD and Nye County in acquiring wildfire training and equipment.

Figure 14-1

Tonopah Suppression Resources and Critical Features

small | large | x-large

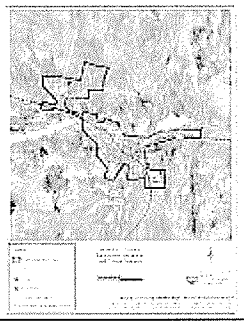
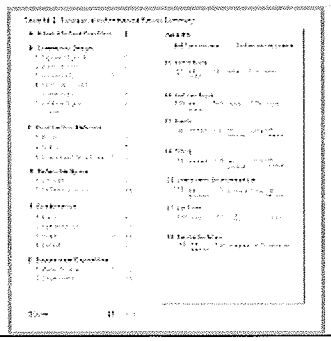


Table 14-2

Tonopah Wildfire Hazard Rating Summary



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