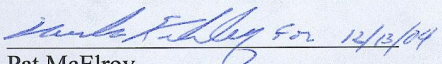



**Draft
Union Valley Area
Community Wildfire Protection Plan**

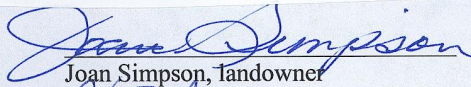
December 8, 2004

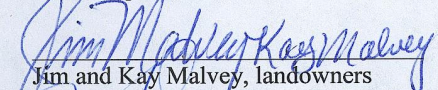
Prepared by
Chelan County Conservation District
with assistance from the
Washington Department of Natural Resources, United States Forest Service, Chelan County Fire
District #7 and landowners in the planning area

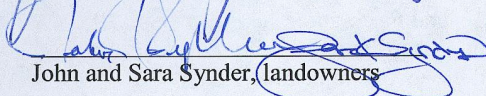
Approvals:



Pat McElroy
Executive Director of Regulatory Programs
Washington State Forester

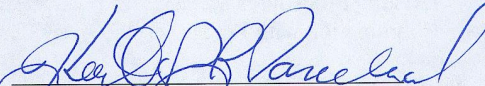

Bob Sheehan, District Ranger
Chelan Ranger District

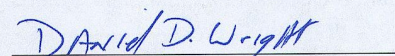

Joan Simpson, landowner

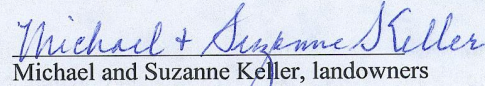

Jim and Kay Malvey, landowners


John and Sara Synder, landowners


Buell Hawkins,
Chelan County Commissioner


Kurt Blanchard, Chief
Chelan County Fire District #7


Dan Wright, landowner


Michael and Suzanne Keller, landowners

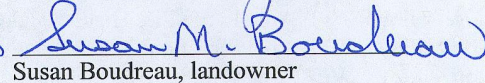

Susan Boudreau, landowner

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1. Introduction

Citizens of the Union Valley area of Chelan County have been concerned about the effects of wildfire for some time. Recent fires initiated local residents to join together to proactively plan and implement actions to protect lives, protect their community and reduce the risk of future wildfire related disasters.

Vision and Goals

The citizens of Union Valley value their homes, woods and privacy. Their overarching aim is to protect life and property of the community, its members, and essential infrastructure from fire through outreach, strategic planning and action.

The primary goal of the Union Valley Community Wildfire Protection Plan (CWPP) is to identify and implement projects that will protect people in the CWPP area, including firefighters and emergency personnel, from injury or loss of life. The secondary goal is to reduce costs for all fire incidents, minimize or eliminate damage or loss of property and essential infrastructure due to wildfire. Limiting the effects from wildfires to natural resources and the costs associated with fires is an additional issue of major interest.

Community Awareness

The community of Union Valley is very aware of the need to develop a Community Wildfire Protection Plan. The group hopes to provide an example that other communities in Chelan County can apply to their areas. The Union Valley landowners have provided the community energy, input and guidance essential for the creation of this document. Additionally, it is the hope of the Union Valley community that residents of the area will start (or continue) efforts to make their properties “Fire Wise” and implement defensible space measures around homes. New residents to the planning area will be made aware of this plan and informational packets could be developed to provide to new residents. The information in the packets could include types of non combustible construction material (siding, decking, roofing, ect).

Values

The citizens of Union Valley value their homes, woods and privacy. They want to improve the safety of their community, and have already conducted work parties to implement fuels reduction efforts around homes of people who could not perform the task themselves. They also want to provide input on land management decisions for adjacent Federal and State lands. While residents realize and acknowledge the cost benefits and possible long term environmental gains obtained from some prescribed and carefully managed burns, they are also very concerned with smoke pollution, visual impacts and health and safety issues. Citizens propose and request a 200 foot shaded canopy fuel break on Federal and State lands adjacent to private lands in the planning area.

2. Planning Area

The Union Valley CWPP area is approximately 41,859 acres and lies north of the City of Chelan in Chelan County, Washington (see UV CWPP Area Map). Areas within the Union Valley area are further defined by drainages and include: Apple acres, Washington Creek, Antoine Creek, Swanson Gulch, Cooper Gulch, Purtteman Gulch, Cagle Gulch and Union Valley.

About one quarter (10,848 acres) of the area is federally owned, while state owned lands compose approximately 1,240 acres. Residential development on private lands within the Union Valley area is rural in nature. Most homes are scattered throughout the planning area and separated by large areas of open forest, patches of dense forest, and grass, bitter brush and or sagebrush. In many places bitter brush is the primary plant species dominating the landscape.

From the fire history of the planning area, fire has the potential to threaten the Union Valley Community Wildfire planning area from Lake Chelan on the south, Prince Creek on the west, Alta Lake on the north and the Columbia River on the east. There have been several large fires which have threatened this community from 3 miles and up to 20 miles from the south west, west from the down lake winds over the last 30 years. As a result, the Wildland Urban Interface (WUI) for Union Valley encompasses the entire planning area.

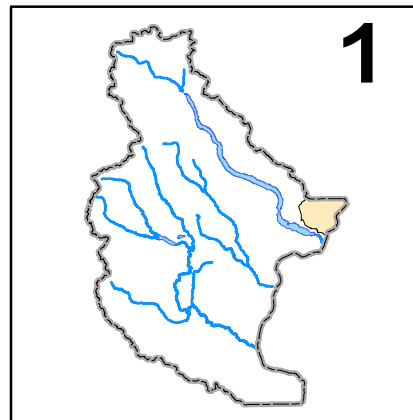
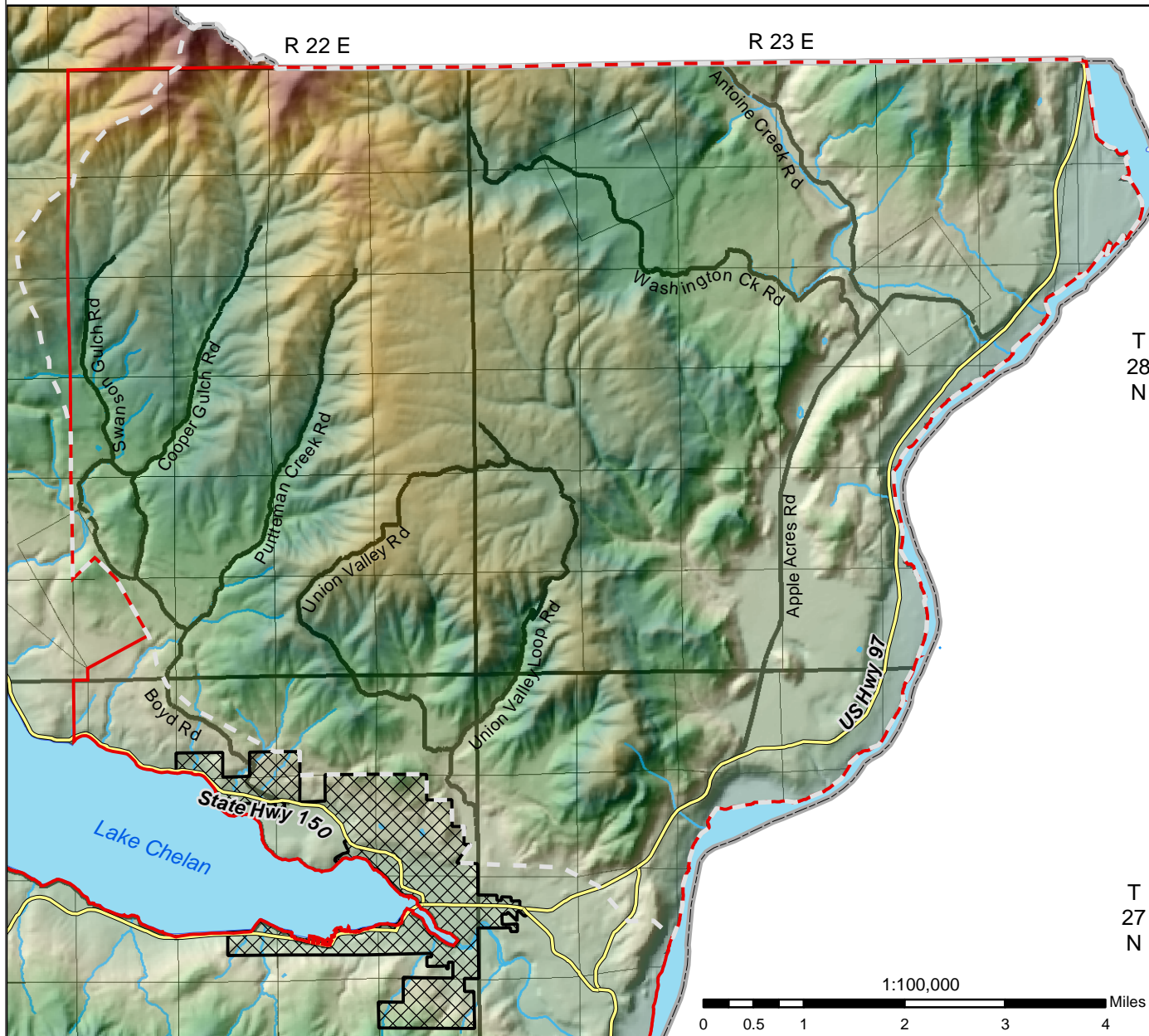
3. Planning Process

Process and Partners

In 2001 a community fire work party was organized to remove dead fall, thin over-crowded tree stands, remove ladder fuels, and mow bitter brush on private lands. Union Valley members brought chain saws, tractors, brush-hogs, large chippers and lots of willpower to create safe areas where wildland fires could be stopped. They held tail-gate pot-lucks and hot dog roasts, and discussed the benefits of working together.

Education of landowners in the planning area began through one-on-one contact, through the work parties and at larger community gatherings. Several landowners from the planning area attended FireWise workshops that talked about the benefits of a “shaded canopy” forest plan and videos of the philosophy were shared with many property owners. Plans to create large contiguous areas of shaded canopy fuel breaks were begun, and home owners were urged to clean up fire prone areas around their homes, driveways and forest lands.

Union Valley Community Wildfire Protection Planning Area



Legend

- County boundary
- Highway
- Stream
- Lake
- UV CWPP area
- FD No. 7 boundary
- City of Chelan

Note: CWPP western boundary was created by WDNR using topography, thus it extends beyond FD No. 7 service boundary.

Hillshade generated using WDNR 30m DEM
All other GIS data provided by Chelan County

Cartography by Chelan County Conservation District.
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Map product prepared for presentation purposes only.



Members of Union Valley CWPP team

As individual projects were implemented to reduce the fuel loads in the Union Valley area, it was recognized that a broader approach that dealt with all aspects of safety should be used. This resulted in the decision to develop an overall Community Wildfire Protection Plan for the Union Valley area. A community meeting was organized and a broad cross-section of stakeholders including citizens, local elected officials, representatives from Chelan County Fire District No. 7, the Washington Department of Natural Resources, U.S. Forest Service, utility companies, Emergency Medical Service, Community Emergency Response Team (CERT) representatives and property owners attended and discussed the feasibility of creating such a plan.

The Union Valley Community Wildfire Protection Plan is the result of these locally-led efforts and partnership between private, local, state and federal interests. The Union Valley CWPP serves as part of the foundation of the County-wide community wildfire protection plan that is currently being developed. By basing the County-wide plan on individual CWPP's, such as the Union Valley plan, the goals, objectives and recommended projects will be developed by and remain specific to each community (See Section 7. Mitigation Action Plan)

4. Assessment

Existing Information

A substantial amount of data is already available from several sources. Primary fire planning information/GIS data used in this plan came from Chelan County Fire District No. 7 (structure locations/rating, water sources, etc.), USFS Chelan Ranger District (large fire history, some vegetation information), and WDNR (historic/potential vegetation, topography, fire cause statistics). Note: *Portions of this document include intellectual property of the Department of Natural Resources and are used herein by permission. Copyright 2004, Washington State Department of Natural Resources. All Rights Reserved.*

Vegetation

Historically, upper draws and ridge top areas supported both pure stands of ponderosa pine (*Pinus ponderosa*) and mixed, P. pine-dominated stands of age classes ranging from seedling to large diameter. Fescue-wheatgrass habitat predominated the non-forested portion of the landscape (see Historic/Potential Natural Vegetation map on following page).

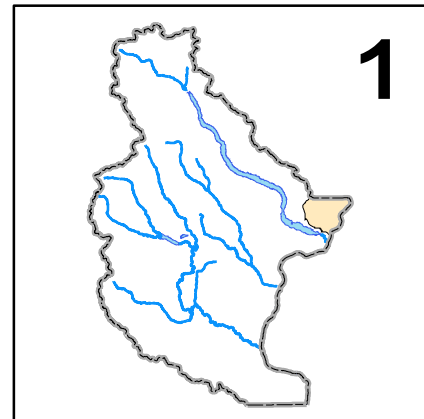
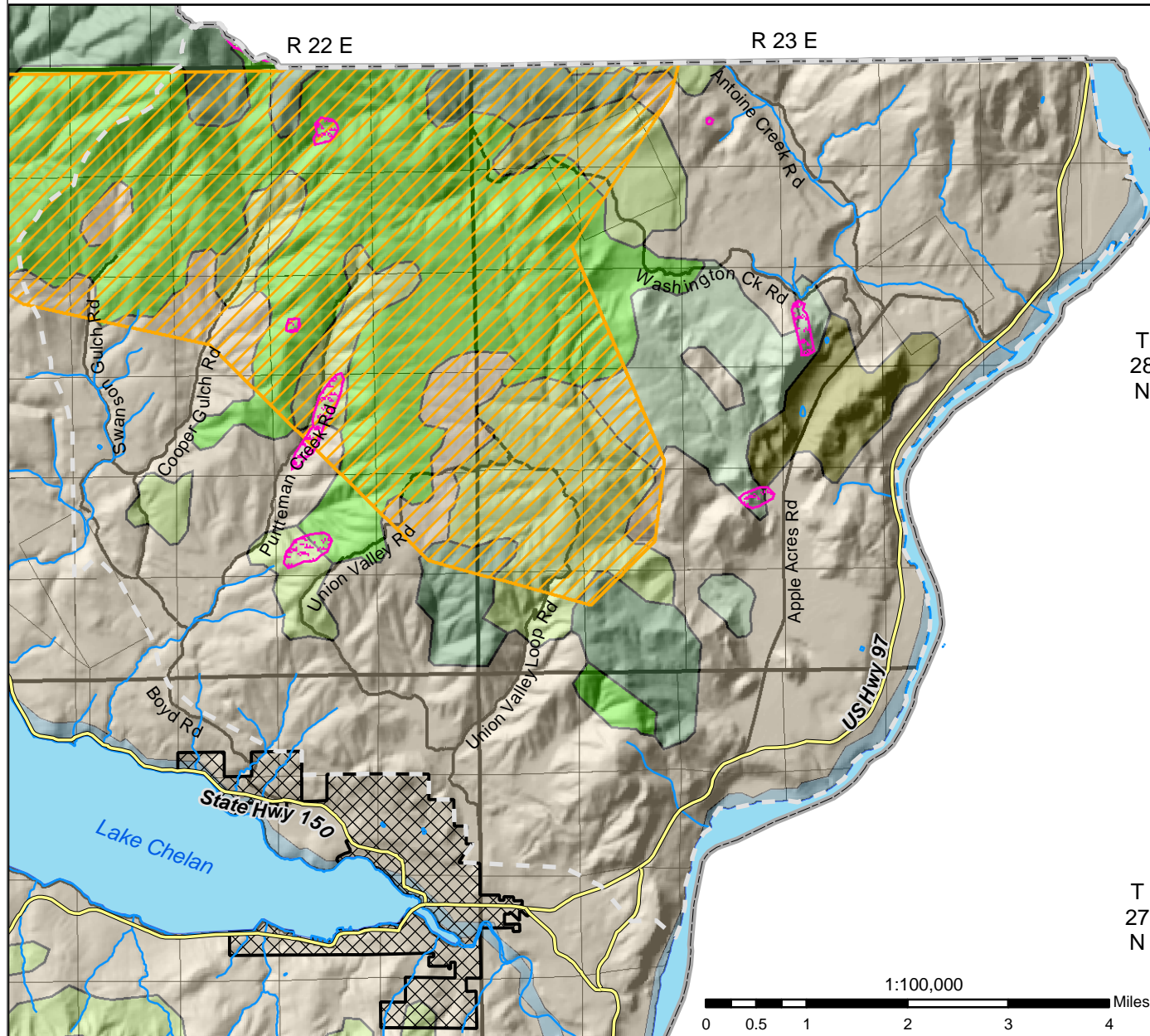
Currently, the primary vegetation type for the Union Valley area is ponderosa pine. Ponderosa pine is a shade intolerant species naturally adapted to survive in areas that experience fire on a regular basis. Fire plays a major role in how ponderosa pine is established on the landscape. Regular burning allows P. pine stands to flourish by removing underbrush and smaller competing trees. As the pines mature their bark thickens, which also makes them better adapted to a fire environment. Older, pure ponderosa pine stands often have a wide-open, park-like feel with large trees intermingled among grassy areas. While the benefits of natural fires are debated by experts, many believe that fire also provides benefit by creating a mosaic of microhabitats on the landscape. The resulting increase in vegetation diversity benefits wildlife, as well as forest health and resistance to disease.

Often, when the natural fire regime is altered ponderosa pine stands become denser. Shading can inhibit the growth of P. pine and allow shade tolerant species, such as Douglas fir, to become established along with other underbrush species. This may result in crowded stands with smaller diameter P. pine intermingled with other species that are not as well adapted to fire. Additionally, denser stands are often more susceptible to the spread of disease.

Fire Ecology

Weather, topography, and fuels affect wildfire behavior. The Union Valley CWPP area, like other areas of Chelan County, is prone to severe weather conditions that can support extreme fire behavior. The landscape has many valleys with steep slopes and dense stands dominated by ponderosa pine, which are primarily less than 18 inches in diameter. Many trees have commingled crowns and ladder fuels, and some pockets are affected by low-level (~0.3 to 5 trees/acre) infestations of mountain pine beetle and/or fir engraver beetle. Continuous, tall underbrush also predominates.

Union Valley CWPP Area Historic and Potential Natural Vegetation



Legend

- UV CWPP area
- City of Chelan
- Bugs and disease, 2003 survey

Historic vegetation

- Non-Forest
- Ponderosa Pine, Large
- Ponderosa Pine, Seedling-Sapling-Pole
- Ponderosa Pine, Small
- Pure Ponderosa Pine, Large
- Subalpine and Non-commercial

Potential natural vegetation

- Western ponderosa forest
- **remainder of UV CWPP area potential natural vegetation = fescue-wheatgrass

Note: CWPP western boundary created by WDNR using topography, thus it extends beyond FD No. 7 service boundary.

Hillshade generated using WDNR 30m DEM Basemap GIS data provided by Chelan County. Historic/potential vegetation and bug data from WDNR.

Cartography by Chelan County Conservation District. CCCD does not warrant, guarantee, or accept any liability for the accuracy or completeness of any data. Map product prepared for presentation purposes only.

Since the weather and topography of a community cannot be changed, the best approach to minimize the risk to people and potential property losses is to modify and/or reduce fuels surrounding the home, as well as at the landscape level. Fuels treatments within and adjacent to a community can improve safety for fire fighters, help overall fire suppression efforts be successful, and reduce potential risk/damage to individual structures/property. Wildlife habitat benefits can also be gained through fuels reduction and natural vegetation restoration projects.

Fire History

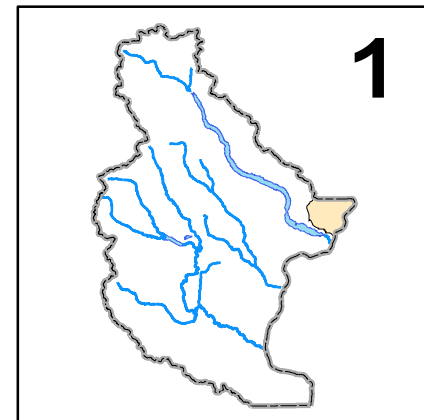
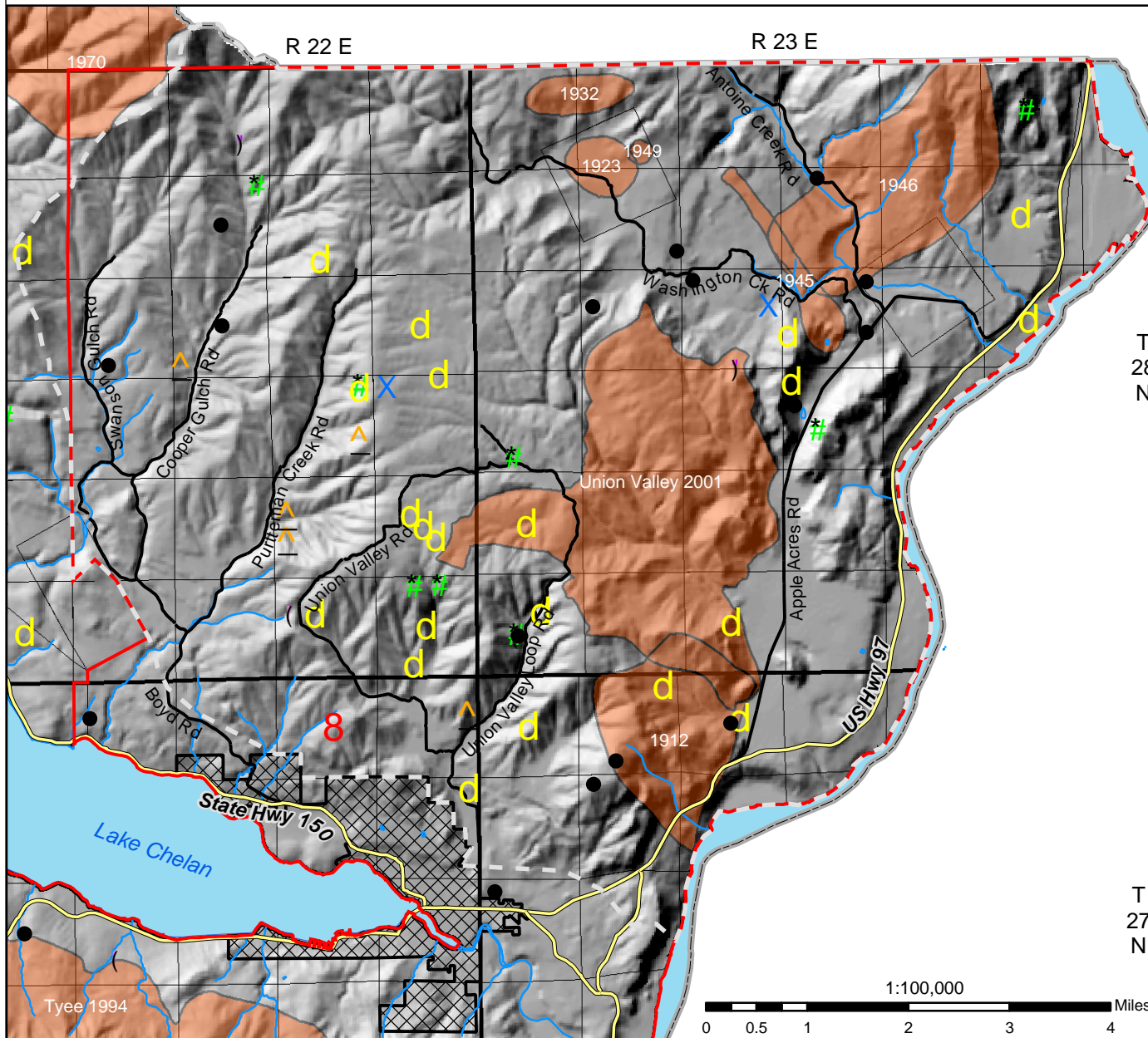
Fires are started naturally by lightening in the Union Valley area every few years, but they are also often started as a result of other causes, such as recreation (campfires) and debris burning (see table below and Fire History map on following page for summary and location of fire starts). The size of the fires may vary, but typically small fires occur on a 5-10 year interval.

The USFS has documented a number of the historic, larger fires that occurred in the Union Valley area. Over 7700 total acres burned in fires that occurred in 1912, 1923, 1932, and 1945/46/49. The 2001 Union Valley fire, with a reported size of 4037.3 acres, is the largest fire the area has experienced according to USFS data (see Fire History map). The Deer Mountain Fire in 2002 was 2,280 acres in size.

General fire causes and total acreage burned on federal and non-federal lands, 1975-2003 (DNR)

YEAR	GENERAL CAUSE	AC. BURNED			
1975	LIGHTNING	5.0	1991	LIGHTNING	0.0
1978	LIGHTNING	5.0	1991	LIGHTNING	0.0
1978	MISC	0.0	1992	INCENDIARY	5.0
1979	LIGHTNING	0.1	1992	LIGHTNING	0.1
1979	LIGHTNING	0.1	1992	LIGHTNING	1.0
1979	LIGHTNING	0.0	1992	MISC S	8.2
1979	LIGHTNING	0.3	1993	MISC	20.0
1979	LIGHTNING	0.1	1994	DEBRIS BURNING	0.5
1980	LIGHTNING	4.6	1996	RECREATION	0.0
1980	RECREATION	1.0	1997	CHILDREN	0.1
1982	MISC	0.3	1998	DEBRIS BURNING	0.5
1984	MISC	0.1	1999	CHILDREN	1.0
1984	RECREATION	0.0	1999	LIGHTNING	0.3
1985	DEBRIS BURNING	25.0	1999	LIGHTNING	168.0
1985	MISC	0.1	2000	DEBRIS BURNING	7.0
1985	RECREATION	1.0	2000	DEBRIS BURNING	2.5
1985	SMOKER	0.0	2000	MISC	11.0
1987	LIGHTNING	0.1	2000	MISC	5.0
1987	LIGHTNING	0.1	2000	MISC	15.0
1987	RECREATION	0.1	2000	RECREATION	15.0
1988	MISC	14.0	2000	RECREATION	0.1
1989	LIGHTNING	1.5	2001	MISC	50.0
1990	EQUIPMENT USE	640.0	2001	DEBRIS BURNING	4037.3
1990	LIGHTNING	1.0	2002	MISC	600.0
1990	LIGHTNING	1.0	2002	LIGHTNING	2280
1990	LIGHTNING	1.0	2003	LIGHTNING	0.1
1990	SMOKER	634.0	2003	MISC	0.2
1991	EQUIPMENT USE	25.0	2003	RECREATION	0.5
				GRAND TOTAL	8588.9 ACRES

Union Valley CWPP Area Large Fire History and General Fire Causes



Legend

- UV CWPP area
- City of Chelan
- FD No. 7
- Large fire boundaries and year

Fire Causes

- Lightning
- Recreation
- Smoker
- Debris Burning
- Equipment Use
- Children
- Incendiary
- Miscellaneous

Note: CWPP western boundary created by WDNR using topography, thus it extends beyond FD No. 7

Hillshade generated using WDNR 30m DEM
 Basemap GIS data provided by Chelan County
 Fire cause statistics GIS data from WDNR.
 Large fire history GIS data from USFS WNF

Cartography by Chelan County Conservation District.
 CCCD does not warrant, guarantee, or accept any liability for the accuracy or completeness of any data.
 Map product prepared for presentation purposes only.

Fuels/Hazards

The WDNR has classified the Union Valley area as a 'high risk' Wildland Urban Interface community. This classification is supported by all agencies responsible for fire protection in the Union Valley area of Chelan County. Past activities have altered the normal fire regime, stand species composition and forest health. Dense, overstocked stands of trees are increasing the fire hazard in the Union Valley CWPP area. Many stands of ponderosa pine are dominated by trees less than 18 inches in diameter. Pockets of trees are being affected by low level (~0.3 to 4.5 trees/acre) infestation by mountain pine beetle and/or fir engraver (WDNR GIS; see previous Vegetation map). Trees often have commingled crowns, mistle toe and ladder fuels, and continuous tall underbrush also predominates on the landscape. All of these variables can create conditions for an intense and fast moving fire.

Protection Capabilities

Chelan County Fire District #7 provides structural fire protection and WDNR provides fire protection for private lands in the Union Valley area. The USFS is the primary agency responsible for management of fires on federal lands.

Structural vulnerability

Residences within the Union Valley CWPP are widely dispersed and often woven into the forest landscape. Accessibility, topography, and the surrounding vegetation all contribute to each structure's fire risk (See Attachment A, Form 299).

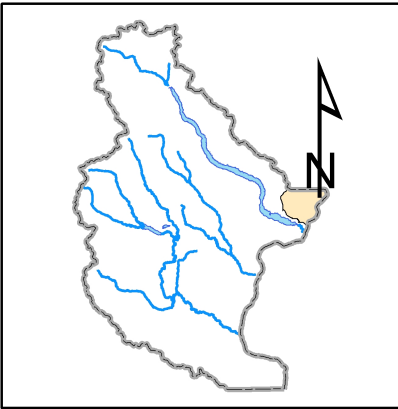
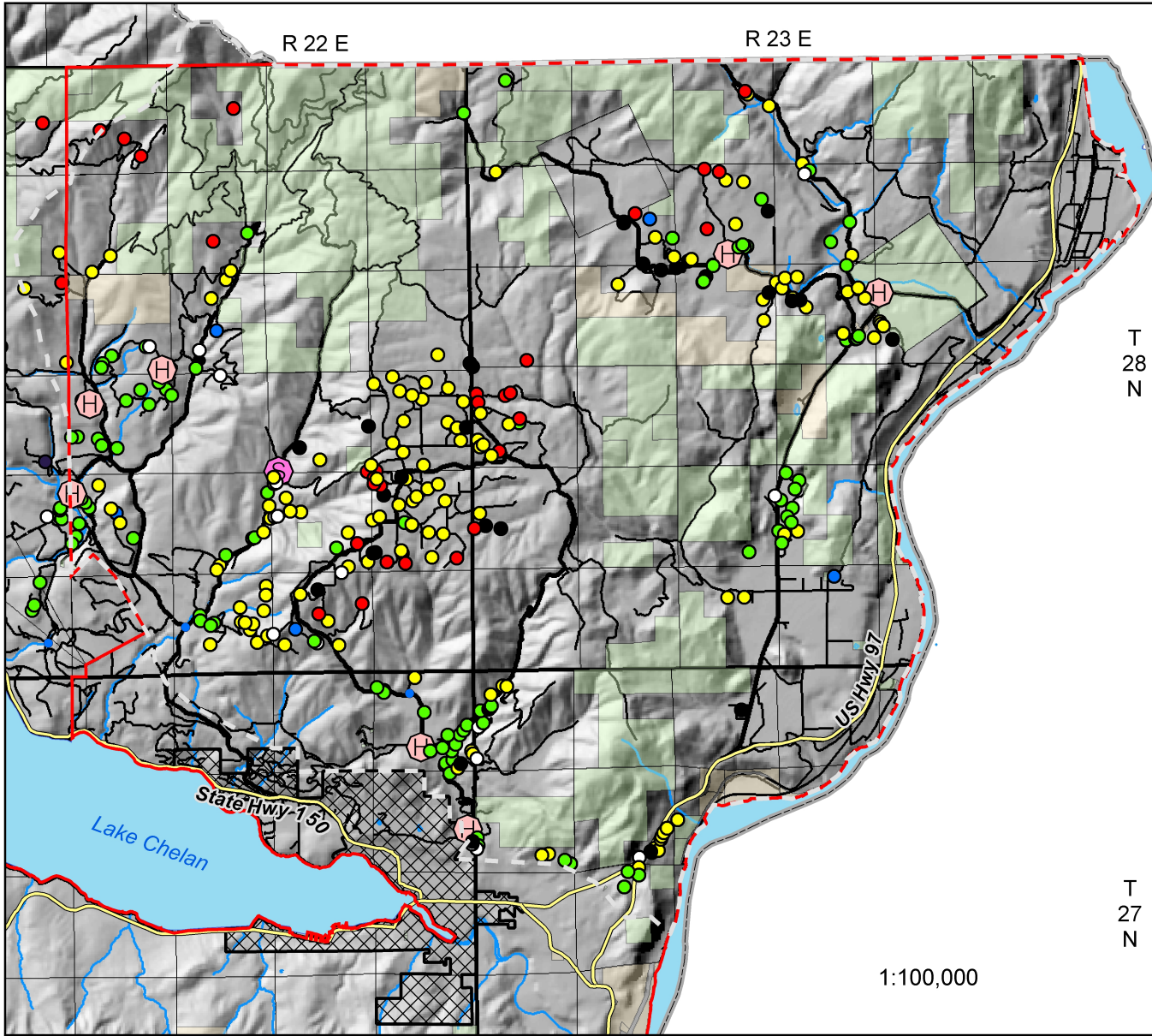
The Form 299 was used to develop risk assessments for all structures in the UV CWPP area. It was completed by Chelan County Fire District No. 5 in 2003. A risk code was assigned to each structure based primarily on the ability of fire fighters ability to reach and protect the structure without jeopardizing fire fighter safety (see map on next page). The risk codes included; low (easiest to defend safely), moderate, and high (hardest to defend safely).

5. Risk Evaluation

Access

Union Valley Road is the only designated emergency evacuation route and it is oriented in a north-south direction. Due to the topography of the area, all other main roads are orientated primarily in a north and south direction. Not all roads in the CWPP area are paved or in suitable condition for fire equipment. Therefore, road access has been identified as a concern. The need of improved roads that could serve for emergency evacuations in an east to west direction has been identified as a goal.

Union Valley CWPP Area Structure Assessment and Water/Landing/Safety Zones



Legend

- UV CWPP area
- City of Chelan
- FD No. 7
- Highways
- Primary roads
- Minor/unimproved roads

Structure Fire Assessment

- Unassessed
- Barn
- Low
- Medium
- High
- Water Well Enclosure
- H LandingZone
- S Safety Zone

Note: CWPP western boundary created by WDNR using topography, thus it extends beyond FD No. 7

Hillshade generated using WDNR 30m DEM
 Basemap GIS data provided by Chelan County
 Structure assessment and water/landing/safety data provided by Chelan County Fire District No. 7

Cartography by Chelan County Conservation District.
 CCCD does not warrant, guarantee, or accept any liability for the accuracy or completeness of any data.
 Map product prepared for presentation purposes only.

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Water Supplies

The location of water sources available for fire fighting efforts have been identified (see Structure Assessment and Water/Landing/Safety Zones map on previous page). Water sources are primarily surface water withdrawal sites located on private land. Private residences with reservoirs that could be filled with water for firefighting have also been identified.

Type/Density of Structures

Refer to the map on the previous page for a depiction of structure locations and relative density.

Fuel breaks and Safety Zones

Union Valley community members, with assistance from WDNR, have already implemented some shaded fuel break and access improvement projects (see Completed/Ongoing/Proposed projects map on page 14). The primary treatment goal in the CWPP area is the creation of 200-foot wide shaded canopy fuel breaks in designated areas throughout the planning area.

A safety zone has been identified (see figure on previous page). The Synder property has been identified as a location that can accommodate livestock. Three potential safety zone sites have also been identified (see Completed/Ongoing/Proposed projects map page 14).

Creating safety zones around homes has been identified as a priority for the residents of the planning area. Sheltering in place information via Fire Wise workshops and Washington State DNR has been provided to landowners, but more information will be made available to all landowners in the planning area.

6. Current Activities

Protection Measures

Fire protection for the Union Valley area is provided by Chelan County Fire District #7. Depending on location within the planning area, response times average between 5 to 45 minutes.

Existing Procedures

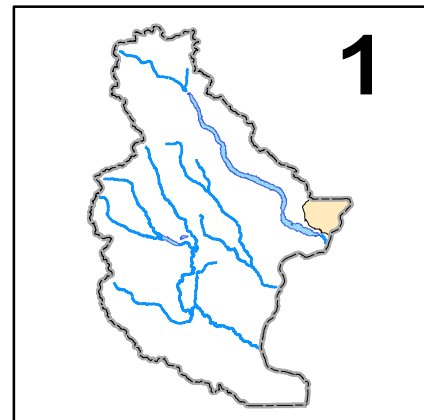
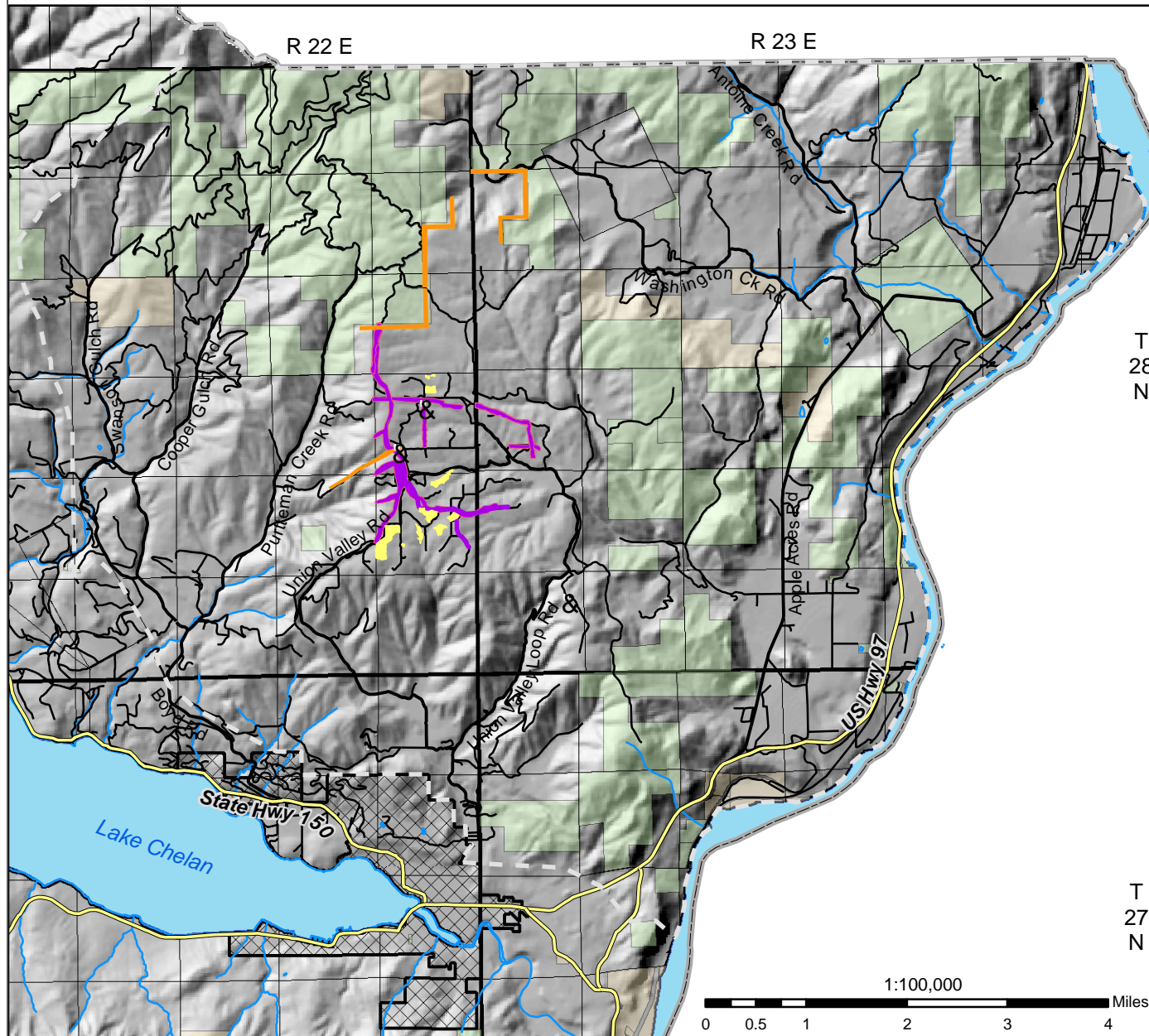
Landowners have already organized themselves and implemented community types of projects that have reduced the fuel loads around homes. Grant funds have been obtained through the Washington Department of Natural Resources for larger fuels reduction projects and shaded canopy fuel breaks. A new section of 200-foot wide shaded canopy fuel break is being proposed for creation on private lands adjacent to federal lands (see Completed, Ongoing, and Proposed Projects Map on following page).

Coordination with Forest Service Activities

In order to maximize the fuels reduction work outlined for private land in this plan, it is desirable for complimentary projects to take place on adjacent State and Forest Service managed lands in the Union Valley planning area. Land management plans for adjacent federal land are outlined in the Antilon to Alta Ecosystem Restoration Environmental Assessment (Chelan Ranger District 2002) and include fuel reduction related projects. Projects identified in the Union Valley Community Wildfire Protection Plan are complementary to projects identified in the A to A plan. In addition, the citizens of the Union Valley planning area request a 200 foot shaded canopy fuel breaks on Federal and State lands in the Wildfire Urban Interface I (WUII) adjacent to private lands in the planning area.

From the fire history of the planning area, fire has the potential to threaten the Union Valley Community Wildfire planning area from Lake Chelan on the south, Prince Creek on the west, Alta Lake on the north and the Columbia River on the east. There have been several large fires which have threatened this community from 3 miles and up to 20 miles from the south west, west from the down lake winds over the last 30 years.

Union Valley CWPP Area Completed, Ongoing and Proposed Projects



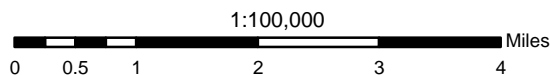
Legend

- UV CWPP area
- City of Chelan
- Highways
- Primary roads
- Minor/unimproved roads
- Completed shaded fuel breaks and access improvements
- Treatment funded but not yet implemented
- Shaded fuel break proposed for 2005 funding
- Proposed safety zones
- Federal land
- State land

Note: CWPP western boundary created by WDNR using topography, thus it extends beyond FD No. 7

Hillshade generated using WDNR 30m DEM
 Basemap GIS data provided by Chelan County
 Project status GIS data provided by WDNR

Cartography by Chelan County Conservation District.
 CCCD does not warrant, guarantee, or accept any liability for the accuracy or completeness of any data.
 Map product prepared for presentation purposes only.



7. Mitigation Action Plan

The priority project of the Union Valley landowners is to establish shaded canopy fuel breaks throughout the CWPP area, particularly adjacent to USFS lands. The objective of the shaded canopy fuel breaks will be to compartmentalize the fuel loads within the fuel break and reduce fire intensity. The shaded canopy fuel breaks will be located in the Wildland Urban/Interface areas of private lands, adjacent to Forest Service lands, and along roads and on ridge tops of terrain highly susceptible to wildfires. The secondary project or goal of the Union Valley landowners is for roads in the planning area to be improved or upgraded to comply with County standards.

The Union Valley Community Wildfire Protection Plan has three main categories of mitigation actions: Fuels Reduction, Education/Outreach, and Improving Prevention in the Wildland/Urban Interface. Recommendations by category are provided below.

Fuels Reduction

- Implement FireWise recommendations within 200 feet of all homes/structures. Actions can include defensible space, adequate turn-around space for emergency equipment and clear consistent address signs.
- Treat vegetation within 100 feet of roads and driveways. This can include shaded canopy defensible space on both sides with road signs and evacuation arrows.
- Develop and maintain additional Safe Areas in strategic locations.
- Create 200 foot wide “shaded canopy fuel breaks” on private land adjacent to federal lands in the planning area.

Education/Outreach

- Continue to develop website www.unionvalleynews.com. Work with Webmaster (Chris Raines) to create, compile, and edit critical FireWise and general community interest information, and post it to the website
 - Develop procedures and format for submitting new (& updating) information; introducing new topics, etc.
 - Enlist volunteers that are willing to dedicate time to this endeavor (long term commitment)
- Develop Community Signs: Create strong messages indicating that we are a Residential, FireWise / Blockwatch Community -- size(s), placement, and quantity -- propose to UV Community
 - ‘Entrance’ to Union Valley – strong, all-encompassing message
 - Fire Danger Levels
 - ‘Burn Ban’ in effect – clearly point out the implications (the danger and penalties involved)
 - General: No Public Campgrounds/No Burning/No Campfires/Use Ashtrays, etc.
 - What to do if smoke or fire is detected: e.g., “Report signs of Smoke or Fire Immediately Call 911”
 - Posters to be displayed at local businesses

- Compile Essential FireWise Information: Information that all ‘at-fire-risk’ residents & landowners *need to know*
 - For distribution to:
 - Union Valley residents
 - Neighboring fire-risk communities
 - Focusing on:
 - Individual responsibilities & residential and personal security, i.e., creating defensible spaces; landscaping in fire country; creating fire breaks, FireWise construction materials, visible house numbers, etc.
 - Individual preparedness: How to create a Personal Emergency Action Plan: Personal evacuation routes; disaster supply list; personal communication plan
 - What to do & what NOT to do in case of Wildfire: Protecting your home/land
 - Interacting with local Firefighting officials

- Public Outreach: Compile General FireWise Information -- Target Awareness
 - Alert the general public to the fire risks in our area and repercussions to the entire community
 - Specify how we can work together
 - Outline specific measures/projects/tasks for disseminating information; determining audience, etc.
 - Fundraising if/when necessary
 - Create maps showing roads, safe areas, water supply, evacuation routes, and fire tools locations

- Act as Liaison with public:
 - Distribute information about Union Valley’s initiatives to media and surrounding communities
 - Serve as liaison with Fire-fighting agencies
 - Organize Fire Education Meetings
 - Create a Firewise Community Block watch program to monitor safety practices and provide information to new residents
 - Encourage active participation of Union Valley and neighboring residents to come together to promote community safety
 - Maintain viability of phone tree

Improve Prevention

- Obtain land for a Fire Station
- Build a Fire Station, recruit and train local Community Emergency Response Team (CERT) and fire fighter volunteers.
- Emergency Safety Issues
 - Address coordination
 - Road Signs
 - Evacuation routes
 - Evacuation plans
 - Safe Areas

- Fire tool area
- Identify alternative water sources
- Address coordination - Chelan county is in the process of assigning addresses in Union Valley, which when completed will allow for the development of mapping the area. After completion of address assignments we suggest the following.
 - Standardize location of address signs.
 - Standardize appearance of signs
- Contact person at Chelan County responsible for assigning addresses to assist and verify correct information.
- Road signs - Develop uniformity of all road signs and install signs at strategic locations. Sign design will meet County and State (if appropriate) requirements.
 - Location
 - Size and type of lettering.
 - Mounting heights.
 - Special signage (i.e. dead ends, curves, fire risk area, FireWise block watch community etc.).
- Evacuation - Develop warning systems and safe escape routes, including the following:
 - Mark exit routes on maps. (may require Fire Dept involvement)
 - Make directional emergency exit signs. (may require State and County involvement)
 - Procure and install warning siren.
 - Contact radio station for possible help with emergency information.
 - Make signs saying incase of emergency tune your radio to **KOZI or 1230 AM.**
 - Make road barriers.
 - Develop monitoring plan (this could be emergency radio frequency)
 - Develop signage for special conditions (medical assistance, elderly)
 - Develop plan to deal with livestock.
- Safe areas of refuge - Continue to identify and prepare areas that would be the safest to go to in case evacuation routes are not accessible.
 - Define safe area (discuss with Fire Dept).
 - Identify safe areas on maps.
 - Shelters (identify requirements)
 - Supplies (identify requirements)
- Fire tool area

Encourage residents to maintain fire tools to be kept on hand specifically in case of fires
- Identify alternative water sources

Identify sources of water for various specific uses (i.e., tank, pond)

Appendix A

1.1 WILDFIRE HAZARD SEVERITY FORM CHECKLIST NFPA 299

This form may be used for individual houses or larger areas like developments or other types of applications.

Name of area or address receiving assessment

	Points	House or area	Notes
A. Subdivision Design			
1. Ingress and egress			
Two or more roads in/out	0		
One road in/out	7		
2. Road width			
Greater than 24 feet	0		
Between 20 and 24 feet	2		
Less than 20 feet wide	4		
3. All-season road condition			
Surfaced, grade < 5%	0		
Surfaced, grade > 5%	2		
Non-surfaced, grade < 5%	2		
Non-surfaced, grade > 5%	5		
Other than all-season	7		
4. Fire service access			
< = 300ft, with turnaround	0		
> = 300ft, with turnaround	2		
< = 300ft, no turnaround	4		
> = 300ft, no turnaround	5		
5. Street signs			
Present (4 in. in size and reflective)	0		
Not present	5		
B. Vegetation (Fuel Models)			
1. Predominant vegetation			
Light (grasses, forbs)	5		
Medium (light brush and small trees)	10		
Heavy (dense brush, timber, and hardwoods)	20		
Slash (timber harvest residue)	25		
2. Defensible space			
More than 100 ft of treatment from buildings	1		
More than 71 -100 ft of treatment from buildings	3		
30-70 ft of treatment from buildings	10		
Less than 30 feet	25		
C. Topography			
1. Slope			
Less than 9%	1		
Between 10-20%	4		
Between 21-30%	7		
Between 31-40%	8		
Greater than 41%	10		
Totals for this page		0	

	Points	House or area	Notes
D. Additional Rating Factors			
1. Topography that adversely affects wildland fire behavior	0 - 5		
2. Area with history of higher fire occurrence	0 - 5		
3. Areas of unusually severe fire weather and winds	0 - 5		
4. Separation of adjacent structures	0 - 5		
E. Roofing Materials			
1. Construction material			
Class A roof (metal, tile)	0		
Class B roof (composite)	3		
Class C roof (wood shingle)	15		
Non-rated	25		
F. Existing Building Construction			
1. Materials (predominant)			
Noncombustible siding/ deck	0		
Noncombustible siding/ wood deck	5		
Combustible siding and deck	10		
2. Setback from slopes > 30%			
More than 30 feet to slope	1		
Less than 30 feet to slope	5		
Not applicable	0		
G. Available Fire Protection			
1. Water source availability (on site)			
500 gpm pressurized hydrants < 1000ft apart	0		
250 gpm pressurized hydrants < 1000ft apart	1		
More than 250 gpm non-pressurized, 2 hours	3		
Less than 250 gpm non-pressurized, 2 hours	5		
No hydrants available	10		
2. Organized response resources			
Station within 5 miles of structure	1		
Station greater than 5 miles	3		
3. Fixed fire protection			
Sprinkler system (NFPA 13, 13R, 13D)	0		
None	5		
H. Utilities (Gas and Electric)			
1. Placement			
All underground utilities	0		
One underground, one aboveground	3		
All aboveground	5		
Totals for this page		0	
I. Totals for Risk Assessments			
Totals for page 1 and 2		0	
1. Low Hazard: < 39 points			
2. Moderate Hazard: 40-69 points			
3. High Hazard: 70-112 points			
4. Extreme Hazard: 113 > points			
Census Data			
Track number			
Block group number			
Block number (s)			

Comments and Notes

DON'T TURN YOUR BACK ON

FIRES

