Pine Forest Development
Community Wildfire Protection Plan

March 2006

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with assistance from the
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1. INTRODUCTION

Citizens in the Pine Forest Development of Okanogan County have been concerned about the effects of wildfire since their beginning in the early 1970's. This concern was amplified in 1995 when the Fire District, Department of Natural Resources and Forest Service conducted a fire simulation exercise that showed lives and the entire community would be lost during the simulated fire. Increased awareness and recent frequent fires in the Methow Valley provide the catalyst for reducing the fire risk. Pine Forest was the first community to address the fire risk conditions in the Methow Valley.

The Pine Forest Owners Association (PFOW), the association management body, took action in 1998 to develop a Forest Stewardship Plan to address the fuels loading and forest health conditions, starting with the community greenbelt areas. Initial treatments were commercial thinning, removing ladder fuels and hand piling and burning.

This was followed by three National Fire Program grants, totaling nearly $100,000, in 2001 and 2002 to continue the program. These funds provided for increased awareness and support for the program and fuels treatment on about 150 high priority acres, about 30% of the development. Current grants will complete the risk assessments, develop this CWPP, and treat an additional 70 acres. But blocks of high-risk fuels will remain and the community desires to continue the program. Lack of safe ingress/egress continues to be a major concern. Proposed projects are outlined in this Community Wildfire Protection Plan (CWPP).

Visions and Goals

The citizens value their homes, forested setting 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 Pine Forest Community Wildfire Protection Plan (CWPP) is to identify and implement projects that will protect people in the CWPP area, including residents, and firefighters and emergency personnel, from injury and loss of life. The secondary goal is to minimize or eliminate damage or loss of property and essential infrastructure due to wildfire.

In an effort to remain true to the environment that the citizens live in, all options for the utilization of biomass produced from fuels reduction projects will be pursued.

Community Awareness

The Pine Forest Community is very aware of the need to develop a Community Wildfire Protection Plan and reduce the fire risk in the area. The 1995 fire simulation exercise clearly showed the risk was real and that action was needed. Recent and frequent large fires in the Methow Valley continue to emphasize the severe fire risk in this area.

The community has led and hopes to continue to provide an example that other communities can apply to their areas. The Pine Forest leaders and PFOA Board have provided the community energy, input and guidance essential for the creation of this document. Additionally, it is the hope of the Pine Forest community that residents and property owners of the area will continue efforts to make their properties fire safe and implement defensible space.

Values

The property owners of the Pine Forest area value their homes, forest setting and privacy. They want to improve the safety of their community, and many individuals have already conducted work to reduce fuels around their homes and implemented fuels reduction projects. The Pine Forest Community involves about 140 properties on about 520 acres with about 75 of these lots developed. With the strong covenants in the association, building values are significant. The assessed value of the Pine Forest Community is approximately $18,750,000.

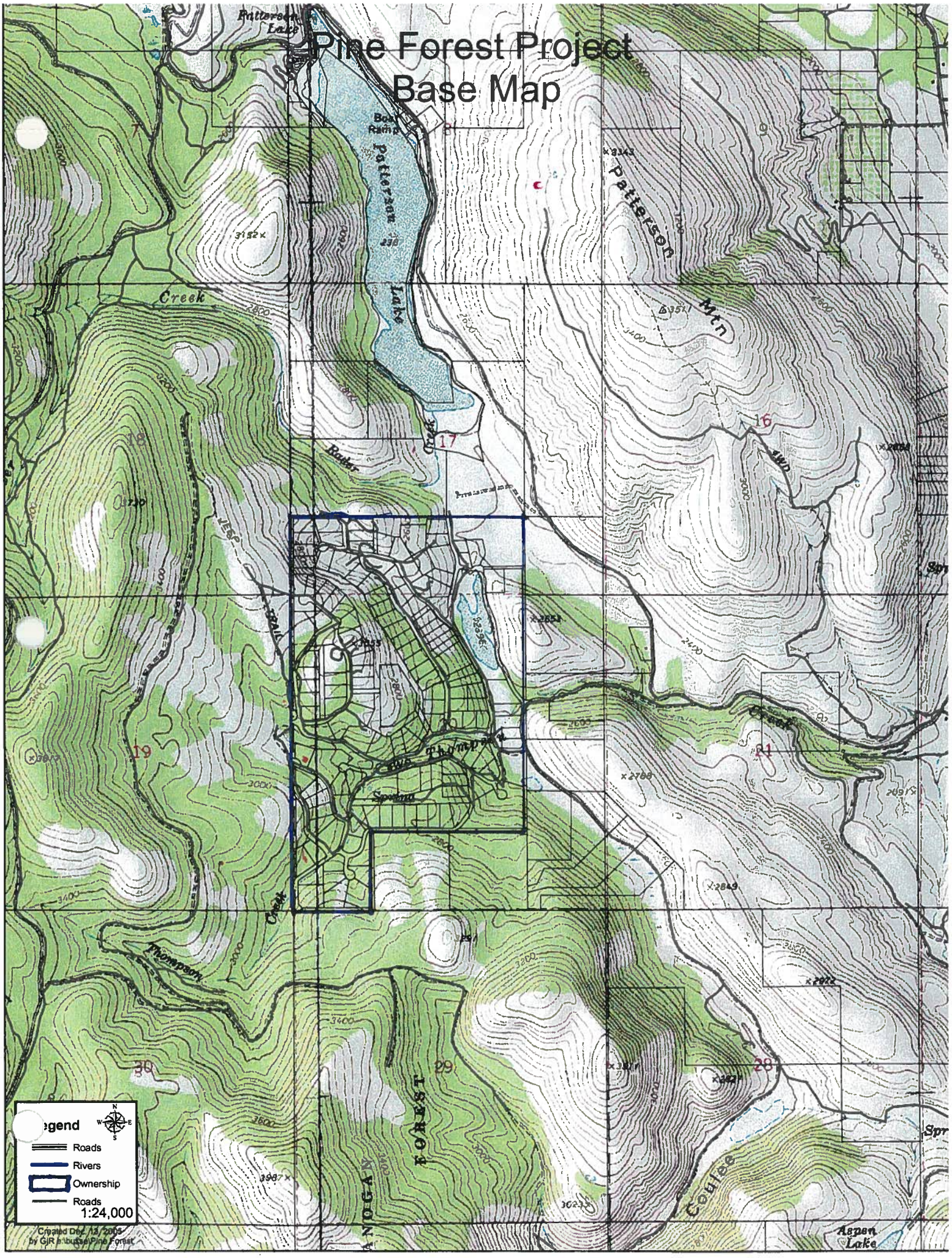
Through the CWPP effort they also hope to provide input on land management decisions for adjacent National Forest and private lands.

2. PLANNING AREA

The Pine Forest CWPP planning area is approximately 520 acres lying undulating terrain within the Thompson Creek Drainage between Elbow Coulee and Rader Creek about three miles southwest of Winthrop in Okanogan County. The area includes all the platted Pine Forest Subdivision area. The area abuts Okanogan National forest land to the west. Sun Mountain resort land lies to the north and another proposed subdivision is to the south. Thompson Creek, an intermittent flowing drainage, runs easterly through the southern portion of the area. A pothole lake, Bristlecone Lake, lies in the northeast corner. The area is within Okanogan fire District #6. The area is considered a portion of the Twisp-Winthrop Wildland/Urban Interface – communities of risk. (see CWPP Base Map – page 3.)

General Description of the Area

The Pine Forest CWPP planning area is defined as the area platted as the 140-parcel Pine Forest Subdivision. It lies between Winthrop and Twisp on the west side of the Methow River. The Okanogan County Elbow Coulee Road at the lower east end accesses it. Access to the properties is provided by a system of interior roads. Most of these roads are narrow and steep and some are not plowed in the winter. They are graveled but of


Pine Forest Project
Base Map
Patterson Lake
Boat Ramp
Patterson Lake
Patterson Mtn
Creek
Rabbit
Creek
JEEP TRAIL
Thompson
Creek
Thompson Creek
Spring
Thompson Creek
Creek
Thompson
PINE FOREST
Coulee
Aspen Lake
Legend
Roads
Rivers
Ownership
Roads
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Created Dec. 12, 2003
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varying standards and some may not be suitable for travel with structural fire vehicles. Some dead-end spur roads exist Currently the only ingress/egress route is by the Elbow Coulee Road. The development will be difficult, if not impossible, to evacuate and defend in the event of a fast moving wildland fire.

Many of the home sites do not include adequate defensible space although individuals have initiated work and through the National Fire Plan grants fuels treatments were completed on 150 acres of greenbelt and individual lots. Fuel types are primarily overstocked, mixed Douglas-fir and ponderosa pine types. Heavy riparian vegetation exists within the Thompson Creek draw and around Bristlecone Lake. Grass/shrub vegetation dominated by bitterbrush is on the more droughty slopes. The terrain is undulating from gentle benches and ridge tops to steep headwalls and a steep draw at the lower end of Thompson Creek. The open ridge, Nighthawk Ridge, along the northwest boundary could serve as a "safe zone" in case residents were trapped or for suppression forces in case of a fast moving wildland fire. Currently there is no other secondary escape route.

Underground lines provide power throughout the subdivision. Water is provided by a public water system maintained by the Pine Forest Owners Association.

General Description of Pine Forest Existing Residential Area

Pine Forest is a recreational-residential subdivision, initiated in the early 1970's. The development is about 50% built, containing a total of 75 structures. There are strict building codes and many of these are high-quality structures. Shake roofs are prohibited but several buildings have shake or shingles siding. Defensible spaces have been developed around about 25% of the structures but the overall fire risk to the community remains high due to pockets of dense untreated fuels and the steep slopes and draws. Water is provided from 4 wells and is pumped to two water tanks with 60,000 gallon total capacity. Standpipes are provided through the development but there are no standard fire hydrants. The water system is being upgraded to provide better fire protection. Underground lines provide power throughout the development.

3. PLANNING PROCESS

Process and Partners

The residents of the Pine Forest community have been concerned about wildland fire from the beginning. The concern was emphasized during a fire simulation exercise in 1995 that showed lives and the entire community would be lost during the simulated fire. Increased awareness and recent frequent fires in the Methow Valley provide the catalyst for reducing the fire risk. The current drought and low snow levels also raise concern. Pine Forest was the first community to address the fire risk conditions in the Methow Valley.

Over the last 20 years fire prevention and safety were frequent topics at association meetings and in newsletter articles. The Forest Service, Washington Department of Natural Resources, the Fire Districts and the Sheriff's Department participated in these efforts. The community members continue to be very concerned about fire risk to their properties and their ability to evacuate the area should fires occur. About 20% are full-time residents with the remainder part-time users, primarily from the west side. It is a continuing program to inform new members about the inherent fire risk to the entire community.

In 1998 the Pine Forest Owners Association (PFOA) Board contacted Cascade Woodlands to develop a Forest Stewardship Plan. The objectives of this plan were:

1. Manage fuel loading and take preventative measures to reduce risk of catastrophic fire.
2. Manage the property for healthy viable ecosystems with diversity including forest, grass/shrub and riparian settings.
3. Remove excess trees on a periodic basis to achieve desired stocking levels, to meet management objectives and to provide funding for other actions.
4. Provide a diverse wildlife habitat for deer, bear, upland birds, waterfowl, songbirds and other species.
5. Manage the visual quality of the area to provide a pleasing, forested setting for residential occupancy.
6. Improve the road system to reduce erosion, to improve access for the residents and to give better access for emergency equipment.
7. Educate property owners about the treatments and practices that apply to the private property.
8. Develop a cooperative fire plan with adjoining landowners and protection agencies for mutual fire protection.

This plan was implemented in 1999 with a thinning timber sale. About 80 acres, primarily the timbered portions of the greenbelts, were treated. The value of the timber, $140,000, plus $18,000 of PFOA and Stewardship funds went into the project.

In October 2001 the PFOA was successful in receiving a National Fire Plan grant of $26,500, funded by the U.S. Bureau of Land Management. The grant provided for removal of submerchantable logs and burning the limbs and tops. The grant was modified in September 2002. An additional $21,700 was added to include purchase of initial attack fire equipment and upgrades of the water system.

In June 2002 another National Fire Plan grant of $50,000 was received, funded by the US Forest Service, to treat additional fuels and develop a fuel break. To date about 150 acres of fuels have been treated, fire equipment has been purchased and the water system upgrades completed. Timber values of $21,600 and $19,200 of PFOA funds have been contributed to the program.

The Forest Service awarded two National fire Plan grants in 2005. One is for $85,000 to treat an additional 70 acres and initiate a fuels maintenance program. The second is for $12,200 and is to complete this Community Wildfire Protection Plan and the fire risk assessments for the community.

Okanogan Fire District #6, with two nearby fire stations (at Winthrop 5 miles to the northeast and at Twisp 10 miles to the south), provides fire protection to the community. This is a volunteer organization. The Fire Chief, as well as the Department of Natural Resources and U.S. Forest Service, all recognize the extreme fire risk of the community and support remedial measures. The Bureau of Land Management added their support by funding the grants.

"Fire Wise" messages and program updates were included in each annual association meeting since May 2002. The results were well received by the community. There is now a better understanding of how wildfire risk can be reduced and many are initiating treatment actions on their own.

The PFOA Board recognizes that there is still much work remaining to reduce the fire risk to the community and are committed to take additional actions. Before any additional grant assistance can be requested the Community Wildfire Protection Plan needs to be approved. This plan identifies the actions and priorities as identified by the Pine Forest community.

The Pine Forest Community Wildfire Protection Plan is the result of these locally led efforts and partnerships between private, local, state and federal interests. The Pine Forest CWPP serves as part of the foundation of the countywide wildfire protection plan that is currently being developed. By basing the County-wide plan on individual CWPP's such as the Pine Forest plan, the goals, objectives and recommended projects will be developed by and remain specific to each community. (See Section 8, 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 Okanogan Fire District #6 (structure protection plan, evacuation plan, etc.), USFS Wenatchee-Okanogan National Forest, Methow Valley Ranger District (fire history, vegetation information), and Washington Department of Natural Resources.

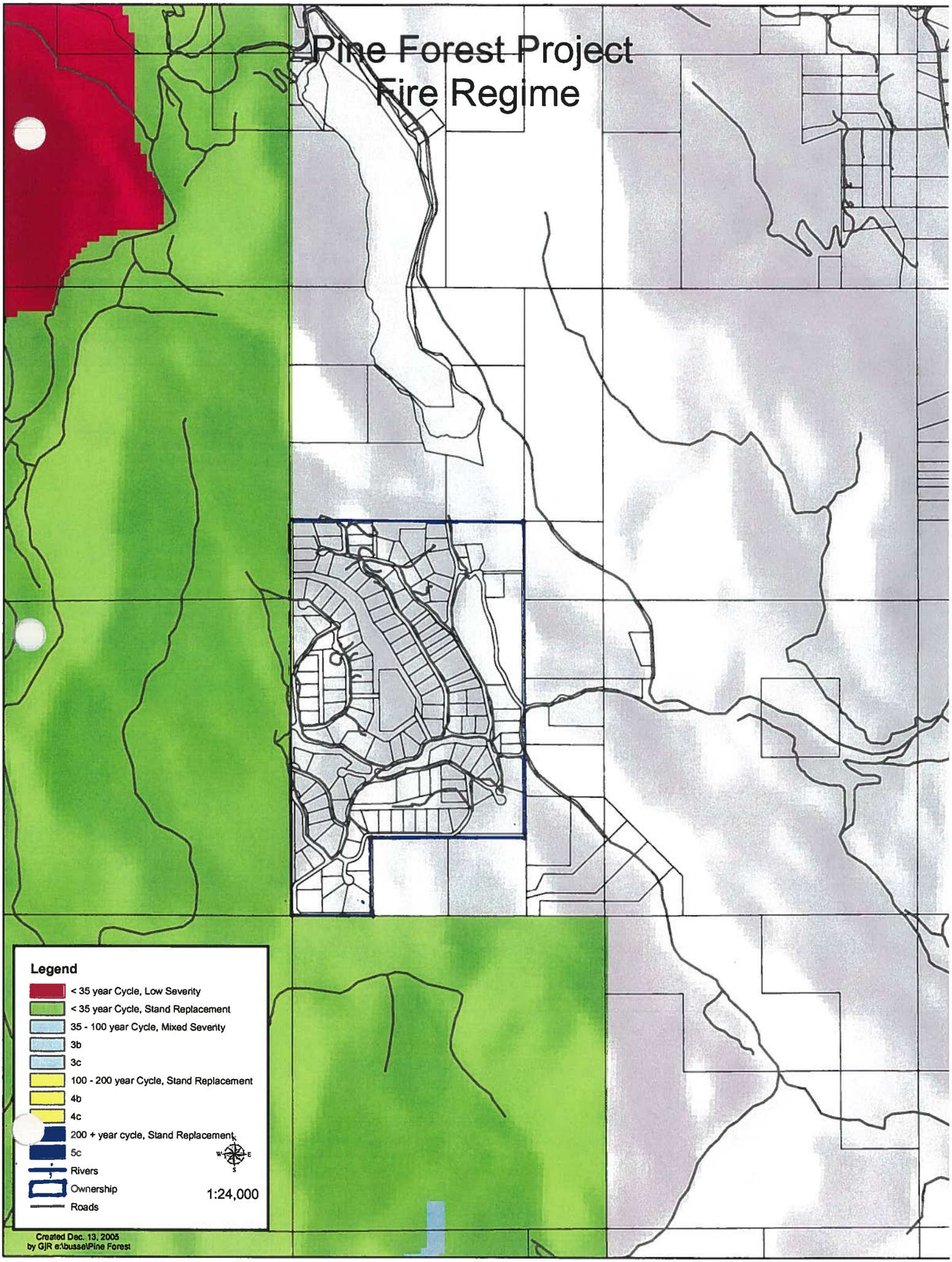
Vegetation

The majority of the planning area contains a mix of Douglas-fir and ponderosa pine. Riparian vegetation, including aspen, exists along Thompson Creek, the draw in the northwest corner and around Bristlecone Lake. Grass/shrub vegetation, predominated by

bitterbrush, occurs on the droughty slopes. Understory vegetation includes pinegrass, snowberry, rose, ocean spray and serviceberry. The majority of the trees are 70-90 years old, coming in after the last harvest and major wildfire, with scattered remnant older trees. About 1/3 of the area is overstocked with 400-500 trees per acre averaging 8-10 inches diameter breast height. Ponderosa pine composition is being reduced by bark beetle attack and dwarf mistletoe is heavy in some pockets of Douglas-fir. Aspen stands are overmature with significant mortality and heavy ground fuels.

Historically, ponderosa pine predominated in these stands with a scattering of Douglas-fir. Age classes ranged from seedling to very large diameters. Understory vegetation was reduced by recurrent low-intensity wildfires. The planning area is predominately a ponderosa pine and mixed conifer dry forest type. Ponderosa pine is a shade intolerant species naturally adapted to survive in areas that experience fire on a regular basis (i.e. frequent fire regime, fire interval every 5-15 years). Fire plays a major role in how ponderosa pine is established and sustained on the landscape. Regular burning allows pine stands to flourish by removing underbrush and smaller competing trees. As the pines mature their bark thickens and their lower branches are self-pruned, which makes them better adapted in a fire environment. Older, pure ponderosa pine stands often have a wide, open, park-like feel with scattered large trees (12-25/acre) with grass and scattered brush species in the understory. Fire also provides benefits, and opportunities for a variety of plant species. The resulting increase in vegetation diversity benefits wildlife, as well as forest health-disease resistance.

When the natural fire regime is altered (primarily through fire suppression) ponderosa pine stands become denser. Shading and competition will inhibit the growth of pine and allow more shade tolerant species, such as Douglas-fir, to become established along with other underbrush species. This overstocked condition will produce vertical and horizontal fuel profile continuities, which often result in stand replacement fires. Additionally, denser stands are often more susceptible to the spread of insects and disease which provide more dead fuels. Frequent fire regimes (with fires at intervals of 0-35 years) become unstable as fire frequency is disrupted (e.g. by fire suppression). These forest types rely on the dynamics of fire to lower competition amongst species, keep areas of disease and insects in check and clean up the dead and downed materials (fuel). If there are no fires in a 0-70 year period to manipulate the dry forest, the forest is considered in a Condition Class II. No fires over a longer period produce a densely stocked stand of pine and shade tolerant species with often results in stand replacement fires. This Condition Class III situation will result in the loss of forest cover, damage to watersheds, altered wildlife habitat, and potential soil damage when the inevitable uncharacteristic high intensity fire occurs. Some fuels treatment has reduced the risk but much of the planning area remains in Condition Class II or III. (see Fire Regime Map – page 8 and Condition Class Map – page 9.)


Pine Forest Project
Fire Regime
Legend
< 35 year Cycle, Low Severity
< 35 year Cycle, Stand Replacement
35 - 100 year Cycle, Mixed Severity
3b
3c
100 - 200 year Cycle, Stand Replacement
4b
4c
200 + year cycle, Stand Replacement
5c
Rivers
Ownership
Roads
1:24,000
Created Dec. 13, 2005
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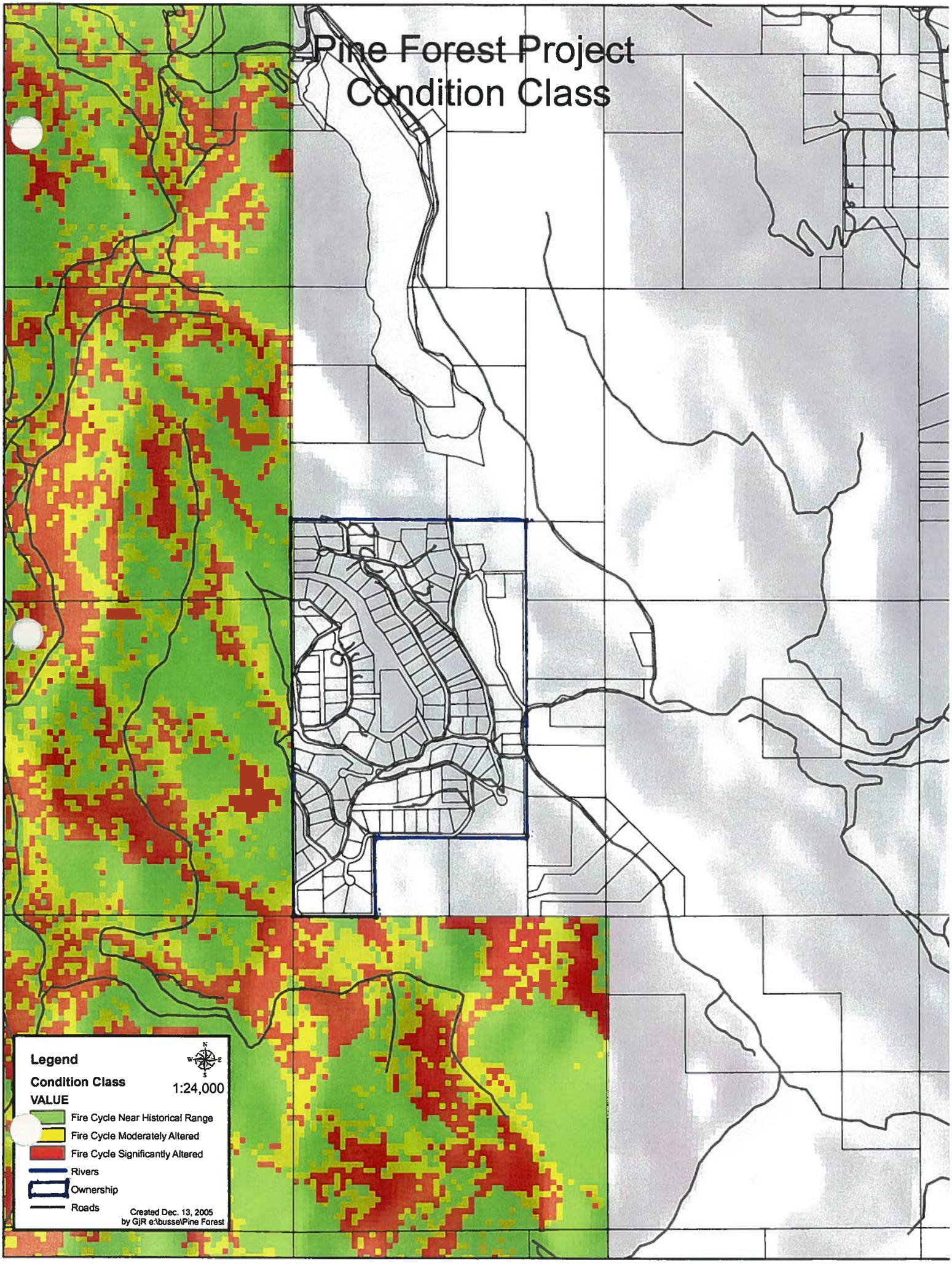
Pine Forest Project
Condition Class
Legend
Condition Class
VALUE
Fire Cycle Near Historical Range
Fire Cycle Moderately Altered
Fire Cycle Significantly Altered
Rivers
Ownership
Roads
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Created Dec. 13, 2005
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Fire Ecology

Weather, topography, and fuels affect wildfire behavior. The Pine Forest CWPP area, like other areas of Okanogan County, is prone to severe weather conditions that can support extreme fire behavior. The landscape within the development is undulating with steep headwalls and draws running from east to west that would act as fire chimneys. Many of the stands have closed canopies, overstocked understory, and abundant ladder fuels. Insect and disease infestations of mountain pine beetle and dwarf mistletoe are prevalent. Heavy ground fuels are present in the aspen stands.

Since the weather and the topography of the 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 firefighters, help overall suppression efforts to 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.

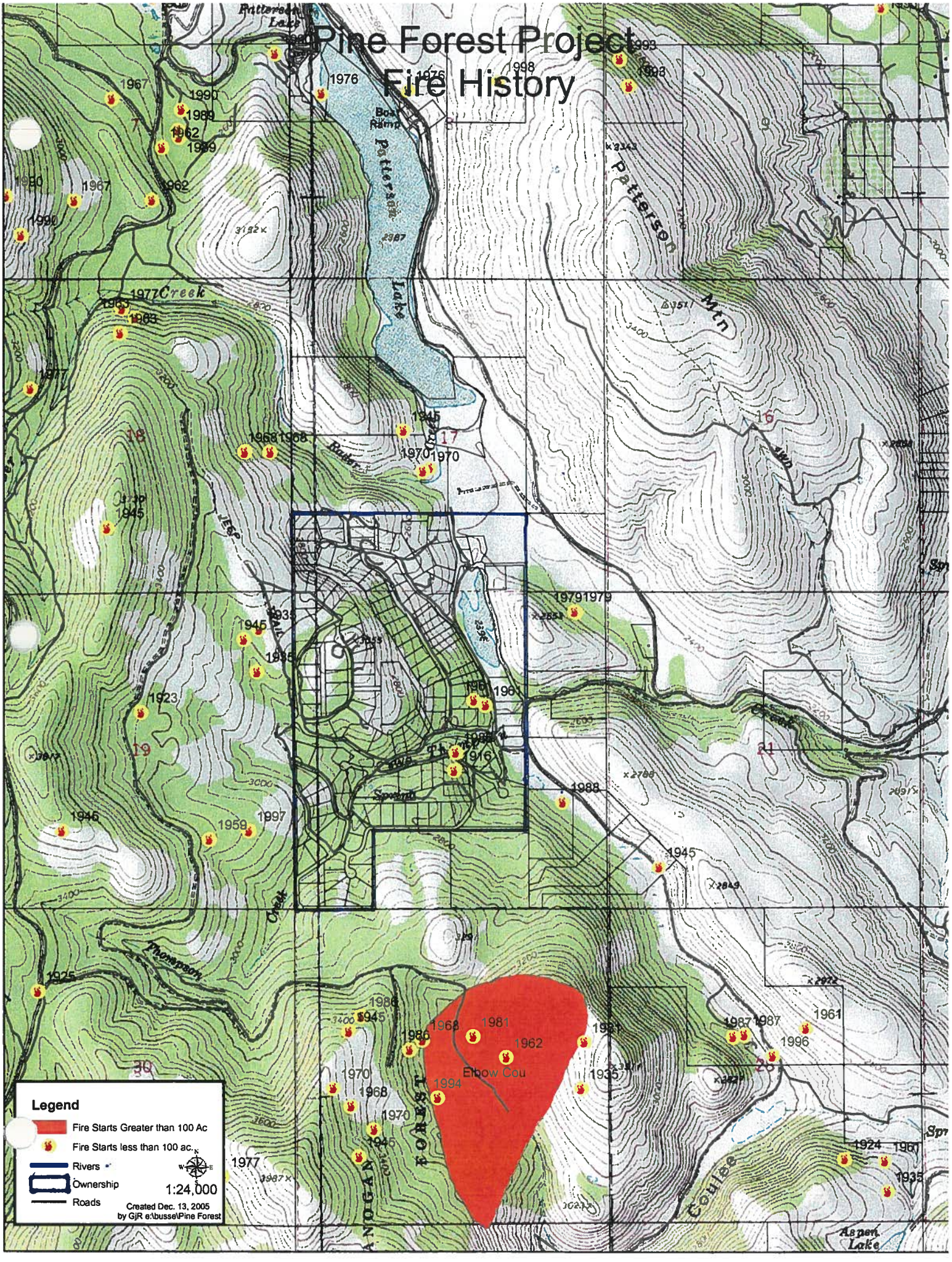
Fire History

Every few years fires are started naturally by lightning in and around the planning area. But fires are also often started as a result of other causes, such as campfires, and debris burning. (see Fire History Map - page 11.) The size of the fires may vary, but typically small fires of a few to several acres occur at 1-5 year intervals. No large fires have been experienced in the planning area in nearly 100 years but conditions are conducive to large, high severity fires similar to those that have recently occurred in surrounding areas.

General Fire Behavior Potential

Some structures are located along open ridges but most structures inside the planning area are within heavily forested areas. The small lot sizes (average 2-2.5 acres each) within the Pine Foret community result in buildings being relatively close together. Fires may move very rapidly through both the developed areas and the overstocked forested undeveloped areas. There is a high potential for spotting and control could be difficult if wind is a factor. The heavily forested draws could produce fast moving fires when driven by the steep slopes and sustained winds. The threat would soon be in all areas of the planning area with fire potential to involve all structures.

On the positive side shake roofs are not permitted. This reduces the risk of shakes becoming a firebrand source for starting new spot fires. But many have wood or even shake or shingle siding and there are many wood and lumber piles that could contribute to spotting. Should structures become involved, spotting potential from the structures themselves will be significant.


Pine Forest Project
Fire History
Patterson Lake
Patterson Mtn
Elbow Cou
Legend
Fire Starts Greater than 100 Ac
Fire Starts less than 100 ac.
Rivers
Ownership
Roads
1:24,000
Created Dec. 13, 2005
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In July 2005 Dr. James K. Agee, University of Washington fire ecologist, reviewed the restoration work that had been completed. He noted the restoration has "significantly reduced potential fire behavior from the untreated condition" but also recommended, "that a sizeable portion of landowners agree to treatment in order to qualify for the grant." He estimates that "at 65-75% participation, the worst fire behavior might be fragmented enough to allow most of the subdivision to avoid being destroyed."

In Pine Forest Dr. Agee was especially concerned about the access situation and recommended, "some second access is desperately needed for this area." He recognized the possibility of a safe zone on the grassy ridgeline in the northwest corner but questioned whether residents could get there before the fire. He suggested a large gravity-fed water tank for this area and a whistle or siren warning system.

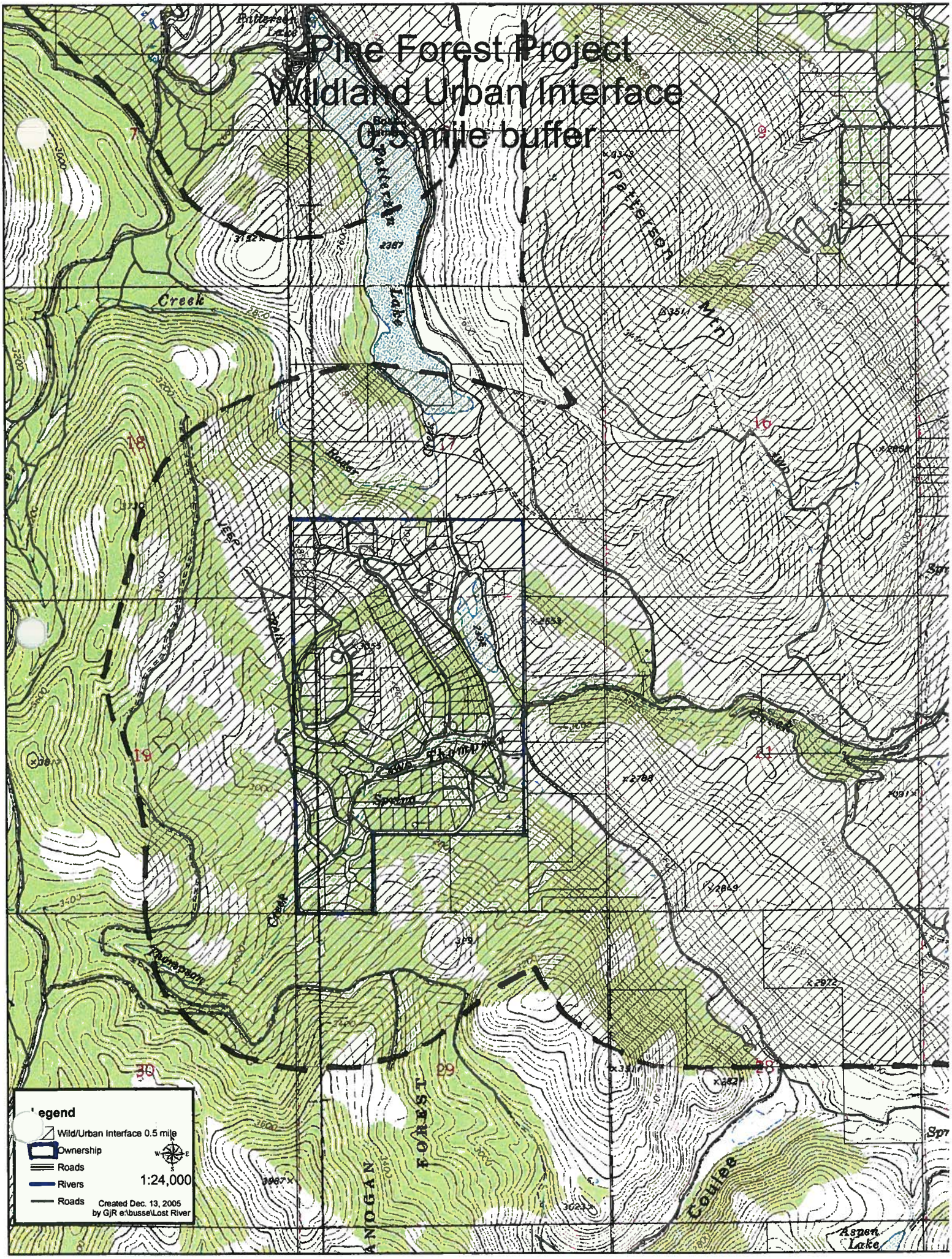
Fuels Hazards

The WADNR has classified the planning area as a portion of the "high risk" Twisp-Winthrop Wildland Urban Interface area. The Forest Service considers the WUI zone to extend 0.5 miles beyond the developed areas. (see Wildland Urban Interface Map – page 13.) Past activities such as logging and fire suppression have altered the normal fire regime; stand species, composition and structure and forest health. Dense overstocked stands dominated by trees under 12 inches in diameter are increasing the fire hazard. Mountain pine beetle affects pockets of trees. Trees often have contiguous crowns and ladder fuels and underbrush and grasses predominate the landscape. The development lies on undulating terrain with some steep slopes and deep draws. All of these variables provide a continuous fuel profile, which can create conditions for an intense and fast moving fire.

Protection Capabilities

Okanogan County Fire District #6 with stations at Winthrop and Twisp is responsible for protection of the Pine Forest community. The surrounding undeveloped private property is protected by the Washington Department of Natural Resources. The Forest Service has primary agency responsibility for the federal lands. The Fire District has a working relationship with the Forest Service and the Washington Department of Natural Resources and mutual aid agreements with all the fire districts within Okanogan County.

Fire District #6 is responsible for protection of the entire Methow Valley north of Gold Creek, covering a very large area (nearly 350 square miles). There is only one paid employee, Fire Chief Don Waller. There are an estimated 70 - 75 volunteers in the Department but availability is variable since many of these have jobs outside the valley. Fire stations are located at Lost River Airport, Mazama, Winthrop, Twisp and Carlton.


Pine Forest Project
Wildland Urban Interface
0.5 mile buffer
Legend
Wild/Urban Interface 0.5 mile
Ownership
Roads
Rivers
Roads
1:24,000
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ANOGAN FOREST
Aspen Lake

Current Equipment

Lost River Airport
- 750 gal. Pumper
- 3,000 gal. Tanker

Mazama
- 1,000 gal. Pumper
- 3,000 gal. Tanker
- 4 x 4 Brush Rig

Winthrop
- 2,000 gal. Pumper
- 3,000 gal Tanker
- Type VI 4x4 Brush Vehicle

Twisp
- 1,000 gal. Pumper
- 4,000 gal Tanker
- Type VI Brush Vehicle
- Backup 4 x 4 Brush Vehicle

Carlton
- 2,000 gal. Pumper
- 3,000 gal. Tanker
- Type VI Brush Vehicle

The objective of the Okanogan Fire District #6's structure protection plan is to safely and efficiently manage resources to protect life, property and resources in the event of an approaching wildfire. Strategy decision shall take into account the following tactical considerations:

1. The Pine Forest community is in a very fire- prone setting. It lies on a southeasterly slope with variable terrain incised with steep heavily timbered ephemeral draws. Fires would move rapidly through the area with spotting, torching and crowning common.
2. This is an up-scale community with significant structures. However many of the homes will require maximum effort to defend, requiring prompt implementation of this plan and the need for triage of structures.
3. The primary consideration of the District is the safety of the firefighters and the protection of the lives of the residents.
4. The District practices a policy of aggressive initial attack. For any fire call within Pine Forest both the Winthrop and the Twisp stations are dispatched, and the remaining stations are included when there is high fire danger. Response times would range from 10 to 20 minutes.
5. While structural protection is the primary responsibility of the District, they attack threatening wildfires in order to protect nearby structures.
6. Wildfires escaping initial attack rapidly expand and require a multi-jurisdictional response with a unified command. This requires joint training and communications. Currently there is a positive relationship with local partners but this requires constant maintenance.

7. Okanogan County Fire District #6 and its cooperators cannot assemble enough structure protection capabilities to protect all the development within the Pine Forest community. Successful defense from wildfire will depend upon structural triage, and time for pre-treatment with mobile tactics. Resources from state and federal agencies will be necessary to implement the strategies described.
8. The Pine Forest community has a community water system. There are water standpipes throughout the area but no standard hydrants. Water for refill capacities for extended structural attack are not readily available.

Structural Vulnerability

Residences within the Pine Forest community are in a suburban forested setting somewhat entwined into the forested landscape. Access, topography, slope and fuels play a role in each structure's fire risk, as well as the condition of adjacent structures. Residents within the untreated forested sections are of highest potential for large fire loss. Timber mixed with light fuels creates a fast moving fire situation with the highest potential for large fire loss. Not having an adequate water system for structural fire suppression limits the amount of protection the district can supply. Actions implemented in the Mitigation Action Plan portion of this plan primarily address improving the ability of structures to be defended during wildfires.

Key Contacts

Organization	Contact	Phone Number
Okanogan County Fire District #6	Central Dispatch	911
	Twisp Station	(509) 997-2981
Okanogan County Fire District #6 Administration	Chief Don Waller	(O) (509) 997-2981 (C) (509) 322-3605
Okanogan County Sheriff	Frank Rodgers	(509) 422-7200-7525
Methow Valley Ranger Dist. (USFS)	Pete Soderquist (FMO)	(509) 996-4003
Central WA Interagency Comm. Center (CWICC)		(509) 662-4393
Okanogan County Electric Coop.		(509) 996-2228
Pine Forest Owners Assoc.	Charlie Segale, Manager	(509) 996-3685
	Dave Chantler, Pres.	(509) 996-3630

Additional Operational Needs Identified by the District

- Two additional paid staff are requested to have sufficient staff available throughout the year to facilitate continued and improved coordination, training, communications, and other joint efforts and to be able to respond to structural fires with two first-responders.
- Two additional Type 4 Engines are required for adequate protection of the Wildland Urban Interface.

Acquiring these needs will largely hinge on funding available for the fire program and its various elements.

5. RISK EVALUATION

An area risk assessment was completed by WDNR (NFP-299 Wildfire Severity Hazard Rating Form) that grouped the planning area rather than analyzing risk to individual structures. **The fire risk assessment for the Pine Forest CWPP planning area is ranked as high.**

Access

The Elbow Coulee Road is the only evacuation route in and out of the planning area. The entire interior road system feeds down to this road at the southeast border of the development. There is the potential for a "back door" emergency escape route from the end of the Nighthawk Road connecting to the Forest Service Thompson Ridge road system. This will be explored as part of this CWPP. Some work has been done to develop fuels breaks along the interior roads but additional clearing would be needed in portions of these roads to make them effective fuel breaks.

The roads are graveled, but are narrow and passing is difficult. Segments have very steep grades and wash-boarded when dry and icy in the winter. A portion of the system is not plowed in the winter. There are several dead end spurs to portions of the development, some with an inadequate turn-around at the end. Some of these roads are not in a suitable condition for structural fire equipment, especially in the steeper ones and the dead end spurs.

Evacuation

Okanogan County Emergency Management Program would organize any evacuation of the Pine Forest community. Since there are no secondary emergency access routes evacuation would have to occur well ahead of any approaching wildfire.

Staging Area for Tactical Resources

The Okanogan County Fire District #6 is the primary agency for supervising any fire originating within the Pine Forest community. Washington Department of Natural Resources is the primary agency for fire protection on the surrounding forested private and state lands and US Forest Service is the primary agency responsible for management of fires on federal lands. The District will respond from both the Winthrop and Twisp Fire Stations as first response with mutual aid resources available throughout the county. These resources may respond to a pre-designated staging area.

If fire threatens any portion of the Pine Forest area, the District will respond with mutual aid resources from throughout the Okanogan County. These resources may use any of the following pre-designated staging area locations:

Staging area options include:

- North Cascades Smokejumper Base, Winthrop
- Liberty Bell High School, 18 Twin Lakes Road, Winthrop
- Twisp Forest Service Work Center, Twisp

Command Post Locations

The command posts would be established at the staging area, but additional phone lines and communications would have to be set up.

Command posts could also be located at the:

- Methow Valley Ranger Station, 24 West Chewuch Road, Winthrop
- Liberty Bell High School, 18 Twin Lakes Road, Winthrop

Water Supplies

The location of water sources and capabilities available for firefighting efforts have been identified. 60,000 gallons of water are stored in the community storage tanks. Water standpipes are located at intervals throughout the community. The closest water supply to draw additional water is Patterson Lake 2 miles to the north.

Fuel Breaks and Safety Zones

Previous fuels treatments have begun development of a shaded fuel break along the northern boundary. Additional work still needs to be done for this to be effective and it needs to be extended westerly on National Forest land up to the Forest Service road. There is still a real possibility of a fast moving fire engulfing the community and trapping residents. The only possible safety zone for cut-off residents and an area to stage strike forces, so they could provide more efficient secondary protection of structures, is on the bald ridge at the end of Nighthawk Road.

A treatment goal is to develop a fire and fuel break along the interior road system. Considerable work has been done but some additional tree removal and removal of ingrowth is needed for these to be effective. (see Project Map - page 19.)

6. CURRENT ACTIVITIES

Protection Measures

The Okanogan Fire District #6 provides fire protection for the Pine Forest area. Depending on time and location, response times average 10-20 minutes.

Existing Procedures

The Pine Forest community and its Owners Association have organized and are implementing community types of projects that have increased the awareness and understanding of the residents regarding the fire risk and the reduction of fuels loads around individual homes. Grant funds, obtained through the National Fire Plan program, have been utilized to treat over 1/3 of the high-risk fuels and have acted as a catalyst for individual efforts by property owners. The community desires to continue these fuels treatments and reduction of the fire risk. (see Project Map – page 19.)

Project Proposals

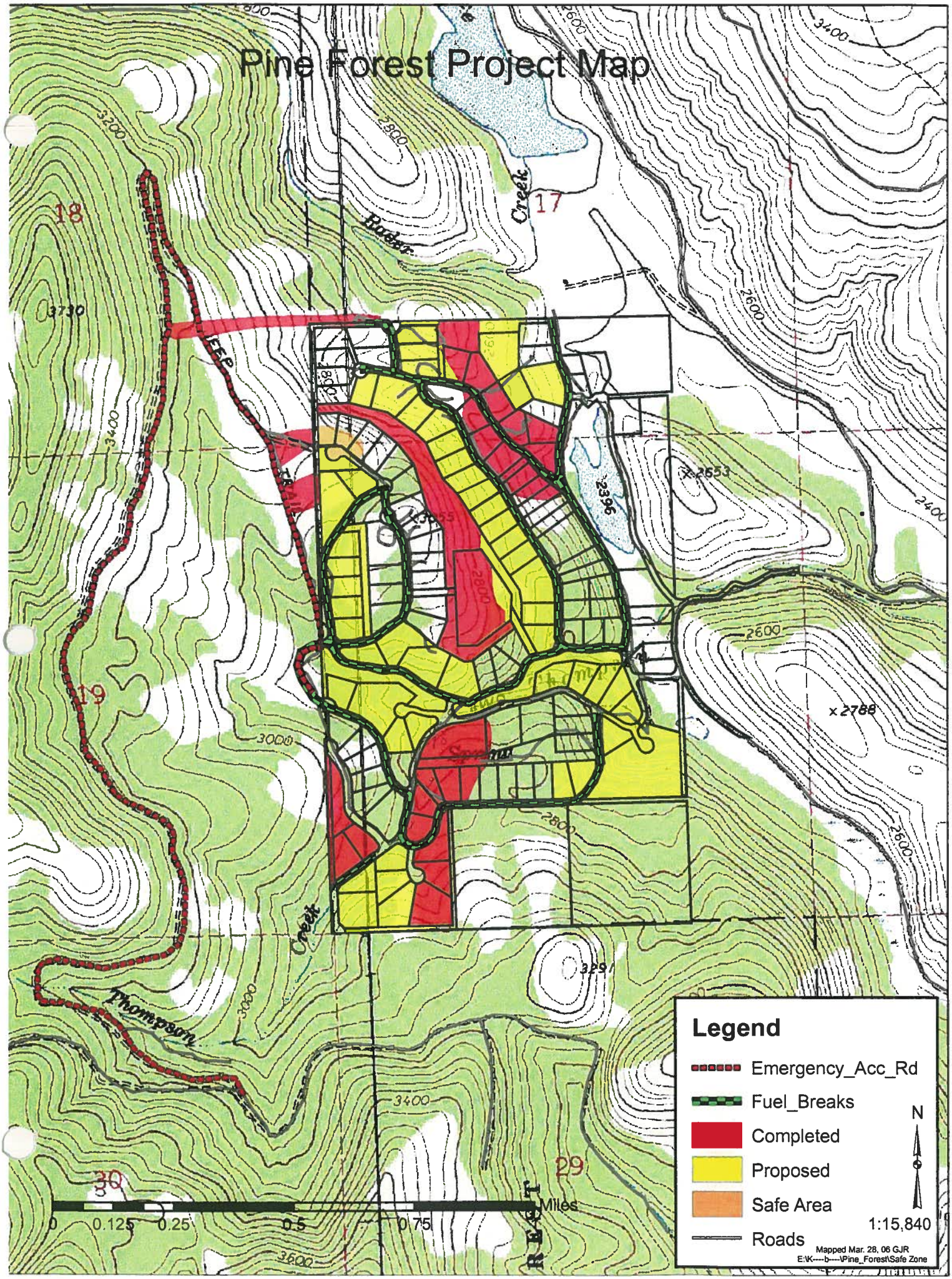
Approximately 30% of the high-risk fuels have been treated with the current National Fire Plan grants plus individual efforts. Dr. Jim Agee, fire ecologist, estimates 65%-75% participation is needed so, "the worst fire behavior might be fragmented enough to allow most of the subdivision to avoid being destroyed". The community recognizes more work needs to be done.

Priorities for additional fuels treatment include completing and extending the perimeter shaded fuel break along the north border, treating the steep slopes and channels that are heavily stocked and "wick" up through the community and treating the remaining densely, stocked areas in the interior of the development. Completing shaded fuel breaks along the road system is another priority. The community desires to initiate a small demonstration prescribed fire program to maintain desired fuels levels on selected areas if this can be organized. Other priorities include developing an emergency evacuation road to the west up to the Forest Service road system and upgrading the water system to provide for standard hydrant coverage. (see Project Map - page 19.)

Coordination with Forest Service and Other's Activities

In order to maximize the fuels reduction work for private land, it would be desirable for complimentary projects to take place on adjacent lands, including Forest Service managed lands. The Forest Service recently completed a fuels treatment and prescribed fire project on National Forest land to the west of the community. This compliments the work accomplished by the National Fire Plan grants.

Another subdivision is proposed adjacent and south of the community. The fuels are heavy in much of this area and could be a threat to Pine Forest. It would be desirable to treat the adjacent areas to reduce the fire risk for the entire community. The CWPP is recognized as the instrument necessary to organize and educate the public and to further encourage and facilitate the design of such future projects.


Pine Forest Project Map
Legend
Emergency_Acc_Rd
Fuel_Breaks
Completed
Proposed
Safe Area
Roads
N
1:15,840
Mapped Mar. 28, 06 GJR
E:\K----b----\Pine_Forest\Safe Zone
0
0.125
0.25
0.5
0.75
Miles
Thompson
Creek
Rocky
Creek
18
19
17
29
30
3730
3291
x2653
x2788
2396

7. PLAN MAINTENANCE

The Pine Forest Owners Association Board will be responsible for monitoring existing projects and proposing and prioritizing future projects aimed at wildfire prevention and protection within the Pine Forest CWPP area. Board members will take on the task of coordinating with outside groups and agencies to investigate, write and submit future grants. This group is also responsible for partnering with appropriate agencies to review and update this CWPP at least once a year under the direction and assistance of the Okanogan County Fire District #6 and the Methow Valley Ranger District.

8. MITIGATION ACTION PLAN

The priority projects of the Pine Forest landowners are to continue the fuels treatment program by treating the remainder of the exterior shaded fuel break, the steep slopes and channels with heavy fuels loading, and the dense stands within the development. A second priority is the completion of fuel breaks along the interior roads and development of the emergency evacuation route up to Thompson Ridge road system. (see Project Map – page 19.) The objectives of these projects are to better provide a safe evacuation route and safe area if trapped and to reduce fire intensity within the community. Additional priorities are the continuing education of the landowners, upgrading the water system to provide standard fire hydrants and to initiate the ongoing maintenance that will be required.

The Pine Forest Community Wildfire Protection Plan has five categories of mitigation actions: Roads - ingress/egress, Fuels Reduction, Public Education and Outreach, Suppression Capability, and Public Agency Coordination. Natural Vegetation/Habitat Restoration is incorporated into the Fuels Reduction projects. Recommendations by category are provided below.

The Pine Forest Steering Committee has prioritized the recommendations **(delineated as PnFr High, Medium or Low)**. The **(PnFr High)** items will be emphasized for their accomplishment. They will be put into an action plan and funding will be sought to implement these projects. Additionally these priority items will be recognized as the highest priority projects for implementation by the Pine Forest area landowners.

1. <u>Issue – Roads ingress/egress</u>
    a. Fuels reduction along roads. **(PnFr High)**
        i. Mitigation goal – develop shaded fuel break along the main loop roads.
        ii. Mitigation Goal – Extend the fuels breaks to the remaining spur and dead-end roads.
    b. Roads unsafe for firefighting personnel to access. **(PnFr Medium)**
        i. Mitigation Goal – Map roads accessible by fire vehicles. Sign those that are dead end or are inaccessible.

c. Need improved secondary access in case of fire emergency. **(PnFr High)**
    i. Work with Forest Service to develop an emergency escape route from Nighthawk Ridge and the cattle guard at Four Corners westerly up to the Thompson Ridge road system.
    ii. Implement the improvement work.
d. Develop uniformity of road and address signs and install signs at strategic locations. **(PnFr Medium)**
    i. Mitigation Goal – Develop a road and address sign plan for the Pine Forest community.
    ii. Mitigation Goal – Provide means for acquiring standard signs and directions on installation.
    iii. Mitigation Goal – Install "dead end road" signs and warning signs on roads unsuitable for fire emergency vehicles.

2. Issue - Fuels Reduction for Pine Forest (a portion of the Twisp-Winthrop WUI, a community at risk
    a. Natural Resources Protection **(PnFr High)**
        i. Mitigation Goal – Treat fuels in areas to protect communities and infrastructure at risk.
            1. Work with the Forest Service to complete shaded fuel break along northerly boundary of the development
            2. Treat remainder of dense stands in the interior of the community
        ii. Mitigation Goal – Maintain existing and future fuels reduction projects.
            1. Trim or mow sprouting vegetation along the roadsides to sustain effective shaded fuel breaks.
            2. Continue maintenance of fuels within the defensible spaces around structures.
            3. In coordination with the landowners, Fire District, Forest Service, and Department of Natural Resources, develop and implement demonstration projects, including the use of prescribed fire, to maintain desired fuels levels.
        iii. Mitigation Goal – Develop a team to locate and prioritize landscape scale fuels projects.
    b. Homesites **(PnFr High)**
        i. Mitigation Goal – Implement defensible space guidelines and create defensible space around homes.
        ii. Mitigation Goal – Provide information for homeowners for measures they can take to reduce ignitability of structures.
            1. With brochures, association meetings, newspapers, etc.
            2. During building permit review and approval process.
    c. Disposing of Excess Fuels **(PnFr Medium)**
        i. Mitigation Goal – Develop and implement plan to dispose of excess fuels generated during fuels treatment projects.
        ii. Mitigation Goal – Explore opportunities for utilization of material generated during fuels treatment projects.

d. Monitor Effectiveness and Validate Work **(PnFr High)**
    i. Mitigation Goal – Review projects to see that work is what was intended, to see if it was effective and to learn how to adapt and improve.

3. Issue – Public Education and Outreach
    a. Community Preparedness **(PnFr High)**
        i. Mitigation Goal – Implement risk assessment recommendations of individual properties with prescriptions as identified in the assessments.
        ii. Mitigation Goal – Develop and implement community fire emergency and evacuation plan, including how to contact and notify landowners (phone trees, sirens, radio stations, etc.) and interaction with firefighting officials.
        iii. Mitigation Goal – Encourage individuals to develop personal emergency action plans, to include:
            a. Individual responsibilities and residential and personal security, i.e., creating defensible spaces, landscaping in fire country, creating fire breaks, Fire Wise construction materials, visible house numbers, etc.
            b. Individual preparedness: How to create a Personal Emergency Action Plan (personal escape routes, disaster supply list, personal communication plan),
            c. What to do and what NOT to do in case of wildfire.
            d. Interacting with local firefighting and law enforcement officials.
        iv. Mitigation Goal – Provide uniform signage for roads and addresses.
    b. Prevention **(PnFr High)**
        i. Mitigation Goal – Residents aware of risks and responsibilities of living within Wildland Urban Interface
            1. Conduct Fire Wise Workshops.
            2. Provide information packets to all present and new landowners.
        ii. Mitigation Goal – Include Fire Wise considerations in review process for building.
            1. Expand review criteria to include restrictions and/or recommendations regarding construction materials, landscaping materials, and road design.
            2. Provide information packets to those considering building or remodeling.

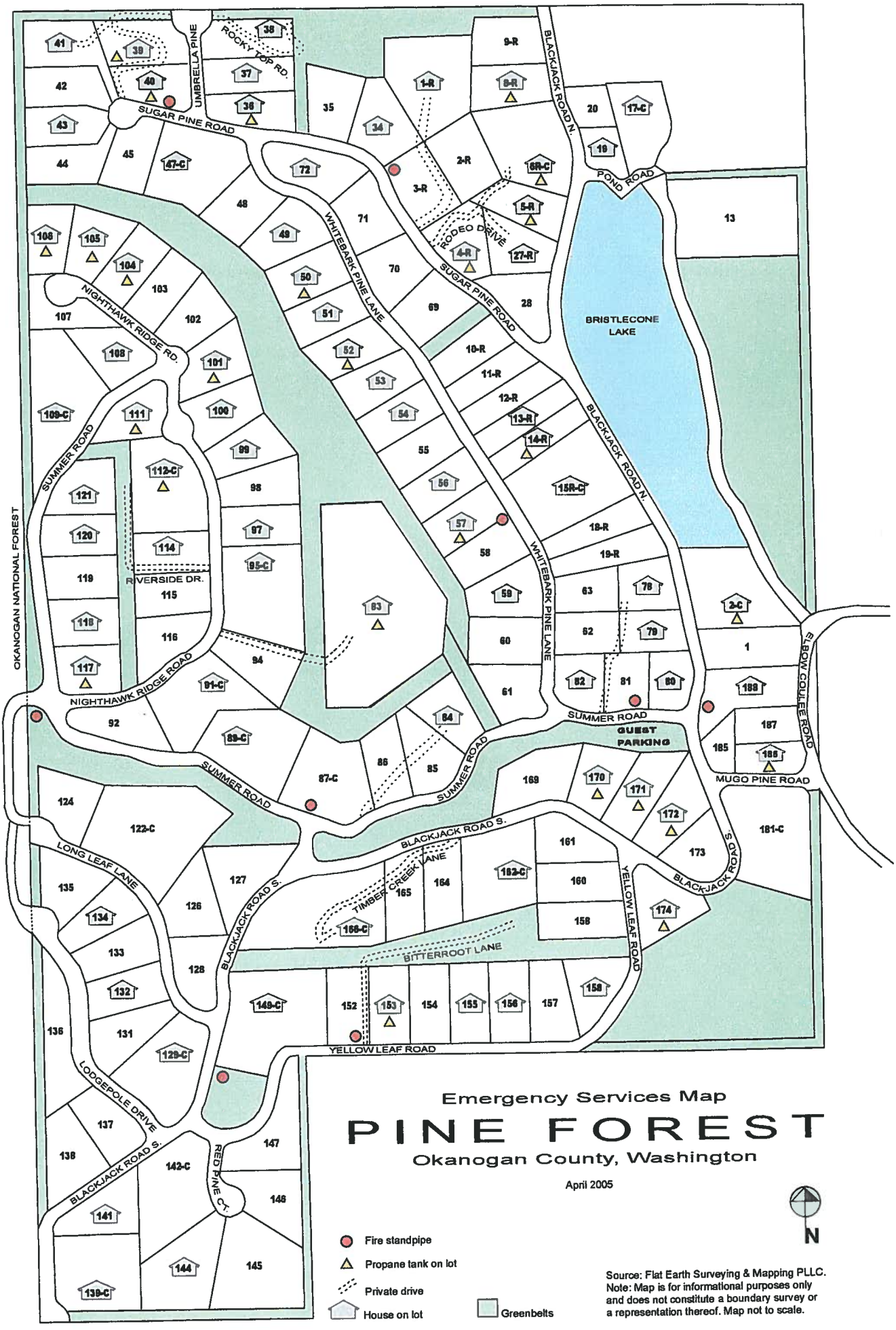
iii. Mitigation Goal – Initiate fire restrictions and provide notifications to landowners
    1. Develop and maintain fire message bulletin board at junction of Blackjack Road, to include:
        a. Fire Danger Levels
        b. Burn bans and other restrictions
        c. Emergency call number – Dial 911
    2. Winthrop and Twisp Fire Districts initiate burn bans and other fire restrictions.
    3. Provide fire prevention messages and notifications on bulletin boards, signs and other media.
    4. Prosecute violators.
iv. Mitigation Goal – Explore possibilities to receive incentives for construction with fire resistant materials.

c. Emergency Services **(PnFr High)**
    i. Mitigation Goal – Provide current road and address maps to all fire, law enforcement, and emergency medical entities. (see Pine Forest Emergency Services Map – page 25)

d. Outreach **(PnFr Medium)**
    i. Mitigation Goal – Compile and make available to general public fire risk information and actions being initiated to reduce these risks.
        1. Distribute information about Pine Forest's initiatives to media and surrounding communities.
        2. Emphasize how groups work collectively together.
    ii. Mitigation Goal – Encourage Pine Forest and neighboring residents to come together to promote community safety.

4. <u>Issue – Suppression Capability</u>
    a. Fire District Staffing **(PnFr Low)**
        i. Mitigation Goal – Current staffing is inadequate to assure adequate protection, training and coordination.
            1. Provide two additional paid employees for District #6.
    b. Available Resources **(PnFr Low)**
        i. Mitigation Goal – Continued development within the WUI requires increased suppression capabilities.
            1. Provide additional two Type 4 engines for WUI protection.
    c. Water Availability **(PnFr High)**
        i. Mitigation Goal – The community water system is inadequate for standard fire hydrants for structural protection.
            1. Develop a strategic plan to upgrade the community water system to accommodate standard fire hydrants.
            2. Secure funding and implement the upgrading program.
        ii. Mitigation Goal – Provide additional safeguards at "safe area" at end of Nighthawk Road
            1. Develop storage tank for gravity water at this area.

5. Issue – Public Agency Coordination
    a. Agency and Group Collaboration **(PnFr Medium)**
        i. Mitigation Goal – Participating agencies and Pine Forest continue to work together to monitor, improve, and adapt program.
            1. Work with the Methow Valley, Okanogan County and participating agencies and landowners to implement a County-wide CWPP.
    b. Project Coordination **(PnFr High)**
        i. Mitigation Goal – Pine Forest and Forest Service coordinate treatment of the National Forest areas that are a threat to the community.
    c. Process of Fire Response **(PnFr Medium)**
        i. Mitigation Goal – Describe fire response procedures and conditions:
            1. Within the Pine Forest community
            2. In surrounding forested areas
            3. Identify and distribute evacuation conditions and procedures
    d. Website Resources **(PnFr Medium)**
        i. Mitigation Goal – Identify and include in information packets information sources for Fire Wise development, emergency measures, current conditions, contacts, etc.


SUGAR PINE ROAD
UMBRELLA PINE
ROCKY TOP RD.
BLACKJACK ROAD N.
POND ROAD
RODEO DRIVE
WHITEBARK PINE LANE
BRISTLECONE LAKE
NIGHTHAWK RIDGE RD.
SUMMER ROAD
OKANOGAN NATIONAL FOREST
RIVERSIDE DR.
NIGHTHAWK RIDGE ROAD
GUEST PARKING
BLOW COULEE ROAD
MUGO PINE ROAD
BLACKJACK ROAD S.
LONG LEAF LANE
TIMBER CREEK LANE
YELLOW LEAF ROAD
BITTERROOT LANE
LODGEPOLE DRIVE
RED PINE CT.
Emergency Services Map
PINE FOREST
Okanogan County, Washington
April 2005
N
Fire standpipe
Propane tank on lot
Private drive
House on lot
Greenbelts
Source: Flat Earth Surveying & Mapping PLLC.
Note: Map is for informational purposes only and does not constitute a boundary survey or a representation thereof. Map not to scale.