

NORTH BEND WILDFIRE PLAN

For

Evacuation and Structure Protection

2008



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PURPOSE

This plan has been prepared for the North Bend vicinity of King County, WA. This plan is designed for two audiences. Part I is general information intended for review and implementation during non-emergency periods by local protection units. Part II is a more detailed section intended to provide an incoming Incident Management Team with accurate and valuable information to help reduce the time required to establish an evacuation plan and protect the structural assets within the identified area.

DISCLAIMER

The recommendations made in this plan are based on fire probabilities for the conditions observed at the time of the survey in 2008. It must be understood that all fire scenarios can not be addressed and that this plan is not an absolute. This plan should be used as a guide and implemented in part or in whole as circumstances dictate. The key to continued credibility of this plan is the time and accuracy employed to maintain the information provided here. This document should be reviewed and up-dated on an annual rotation.

PART I

Plan development

INTRODUCTION

The goal of this plan is to provide response agencies with a strategic framework to use for the protection of improved properties or other values at risk in the event of a significant wildfire. This plan is separated into two parts; the first includes general information intended for use prior to an incident. The second is more specific information about each of the sub-sets of this plan. This plan recognizes the capability of the local fire department and the contributions that can be made by local, regional and statewide fire service resources. The information contained in this plan was developed for use with wildfire operations however, an incident management team may find this a valuable tool in any disaster situation.

The need for this plan was identified by the staff at South Puget Sound Region of the Washington State Department of Natural Resources. There was no great moment of epiphany when this need surfaced but rather an ongoing recognition of the call to action. The challenge of protecting interface areas is increasing due to longer fire seasons and reduced personnel so the Regional staff have taken a proactive approach and developed this document. As more people move into and visit the Pacific Northwest and enjoy the natural beauty of the open spaces there is more probability of wildfire. Added to this, homes are being built in the interface with little or no consideration of the potential for wildfire.

When considering implementation of the evacuation portion of this plan, timing is the most important element required for success. Without adequate time for this plan to perform as intended, failure is a fore drawn conclusion. The potential for confusion and misdirection are ever present threats in any evacuation. Combine these with a rapidly approaching wildfire and the results will usually be panic. Having a plan that can be quickly initiated by competent people will reduce the chaos to a level which is manageable.

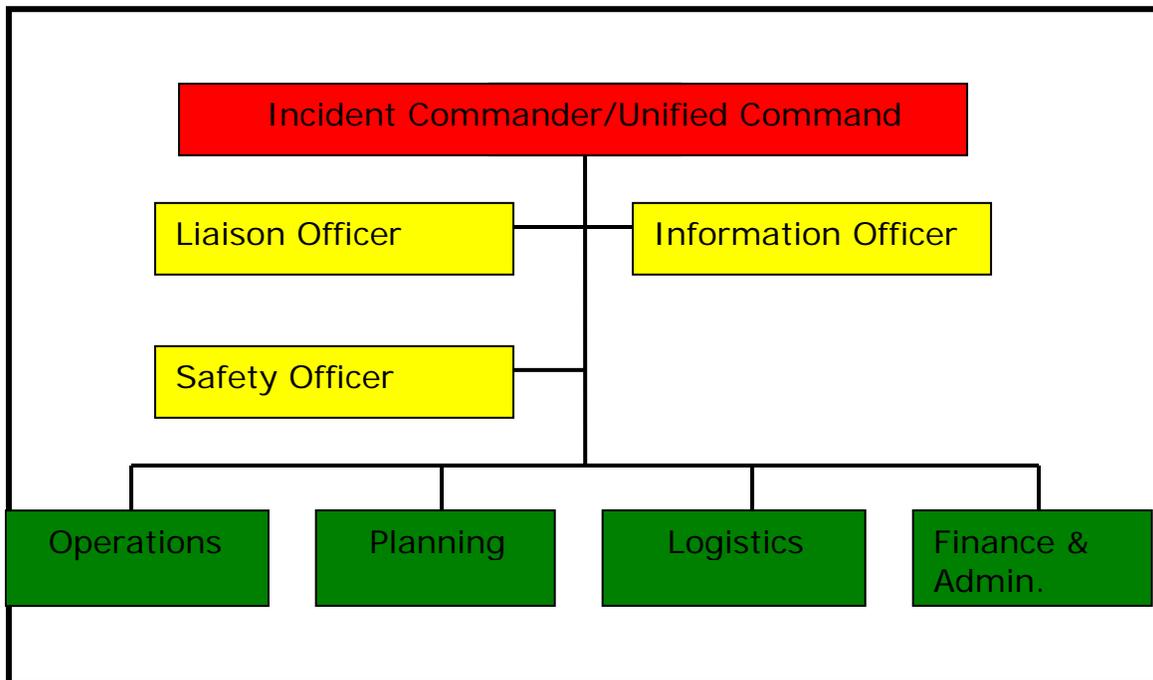
Timely implementation of the Structure Protection/Evacuation elements of this plan for North Bend and vicinity can save lives and property. A key element to the success of this plan is a strong command presence that incorporates the input of all of the principal emergency service providers. Law Enforcement, Emergency Management and community outreach organizations like the American Red Cross should also be participants. These additional agencies can be brought into an Incident Management System. This will help integrate the different disciplines and optimize the focus of all participants. Through the use of the Liaison Officer or the incorporation

of a Unified Command the blending of different priorities can be accomplished. (See chart below)

Experience has proven that many homeowners will be reluctant to leave their home and belongings when an evacuation is ordered. Fire officials lack the authority to force anyone to leave nor do they have the time to educate evacuees after an order is issued. Preplanning and education of the community prior to an incident is imperative for a successful operation.

Early evacuation will reduce traffic congestion and facilitate ingress by fire suppression forces so structural triage can be started. Early evacuation will also allow suppression crews to leave the area as a fire front passes and return rapidly to resume protection of the values at risk.

IMS Chart

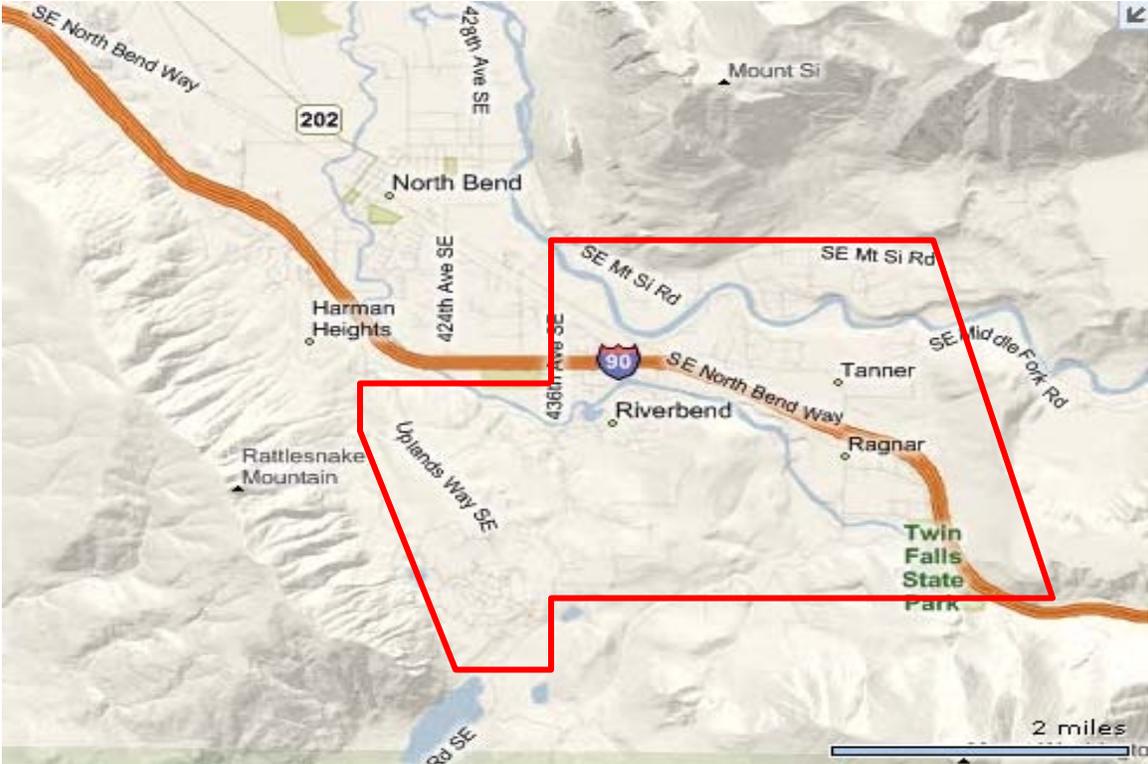


Shown above is a sample Command and General Staff chart of a typical Incident Management Team.

NORTH BEND PROTECTION AREA

The North Bend protection area is generally defined as that area east of the City of North Bend and south of Mt. Si to the Seattle City water shed. The easterly limit includes Edgewick and Grouse Ridge. This is a well established area that once thrived as a commercial travel service corridor until Interstate 90 was opened. Commercial as well as residential development continues to show slow progress along the base of Grouse Ridge however further expansion to the east is hampered by an open pit gravel mining operation that covers several hundred acres. To the north the Mt. Si road area offers little development potential due to the lack of developable acreage. Wilderness Rim and The Uplands are two developments located at the west parameter of the unit. These developments are at opposite ends of the consumer scale. Wilderness Rim is an existing neighborhood that supports small lots, moderate spec houses and little if any uniqueness. The Uplands on the other hand is a high end exclusive sub-division with multi-million dollar custom built houses located on large lots. The common denominator with these two developments is the backdrop of wildland interface. Both areas are backed up against the base of Rattlesnake ridge.

North Bend Protection area



FIRE POTENTIAL AND IMPACT REDUCTION

FUELS

The predominate fuel model in the North Bend planning area is brush and timber (NFDR model H or NWCG type 8). There are few stands that are of very many contiguous acres. Most of the timber is divided into small areas by homes, roads and or open areas. The brush consists mainly of Scotch broom which is dense in some locations. The last remaining undisturbed wildland is along the west slope of Grouse ridge.

WEATHER

Located at the foot of the west Cascades this planning area is subject to high rainfall and more snow than other parts of the Puget Sound Basin. These additional amounts of moisture tend to delay the typical fire season. During the summer months the temperature may exceed 80 degrees for several days in a row drying fuels rapidly. Afternoon upslope winds can be deceptively strong and cause fires to burn with unexpected intensity. Like many other foothill communities the North Bend planning area is subject to east wind events. Because of its' location this area can experience east winds in excess of 50 miles per hour. This phenomenon is the result of high pressure east of the Cascade Range that forces warm air over the Cascade mountains. As the air spills over the top of the range it is funneled down the Interstate 90 corridor resulting in gale force compression winds.

TOPOGRAPHY

This foothills planning area is bracketed by hills to the north and south which increase the wind intensity. North Bend is also the confluence of the South Fork and the Middle Fork of the Snoqualmie rivers. These two drainages provide for

increased diurnal wind activity and may produce unexpected fire conditions.

IMPACT REDUCTION

The reduction of wildfire impact in the North Bend planning area must be a collaborative effort between local, state and federal agencies. No single entity will usually have the resources to undertake a public education program this extensive. Participation in a Fire Prevention Cooperative is a good means of sharing resources and developing a delivery system that is credible and effective. The Washington Department of Natural Resources is the recognized subject matter expert in wildfire prevention and education and should take the lead in a coop development. Participants should include Eastside Fire and Rescue, King County Office of Emergency Management, U.S. Forest Service and the DNR. There may be other groups and agencies interested in participation such as the local water district or the county Fire Marshals' office. The focus of a prevention coop should include traditional education and information elements as well as other activities that are not as familiar. To maximize the impact of reducing wildfire risk to home and business owners, a prevention coop should provide input during the construction permit review process. The input to provide at permit review time should include those measures that would reduce the score of an NFPA 299 review. Specific recommendations in this report for the individual sub-elements are found in those sections.

EVACUATION CONCEPTS

Goal

The goal of any community evacuation plan is to move the requisite number of people in the prescribed amount of time. The temporary relocation of any population can be a large and complicated task which can succumb to any number of circumstances that result in failure or a less than satisfactory outcome. For an evacuation to be successful there is an old emergency management axiom that is well suited to this situation. "No evacuation can be effective without the three p's, Planning, Preaching and Practice."

Planning

In the event of a major wildfire the planning component of this part of the document consists of pre-incident identification of evacuations options available for any given location in this planning area. One of the options may include doing nothing at all based on the predicted behavior of the fire. Another consideration is to allow property owners to remain in the hazard area and shelter in place. At the extreme end of the consideration continuum is an evacuation. This document will attempt to provide information and resources to assist in a safe and orderly evacuation if needed at the time of an incident.

The King County Office of Emergency Management has published an evacuation template which outlines a graduated process for the development of an evacuation plan. There is no intent to duplicate that effort here albeit prudent to remember the use of the guide may help promote commonality in all plans.

The information contained in this plan should not be considered comprehensive but simply an adjunct device to assist an incident management team. This Plan may also be adapted to other types of emergencies. Although many of the recommendations in this plan are situation and/or site specific, the general concept can be employed universally.

Preaching

The need for an almost evangelical approach to public education and information in evacuation planning can not be over stressed. The ability of the public to respond to a wildfire evacuation notice appropriately is wholly dependent on the ability of the local jurisdiction to educate that same public. In reality there are several audiences that the fire service needs to address and provide information to. First and foremost are the communities we serve. Pre-event training of the residents of any community about the need for response to an evacuation order is critical to a successful operation. Another audience is the elected officials that serve our communities. This is the group that can have an enormous impact on the outcome of a major wildfire, not in specific actions at the time of an incident but with development regulations that favor safety over cost savings. It is incumbent upon the local fire department in conjunction with the Washington State Department of Natural Resources and the King County Office of Emergency Management to form a united voice in addressing these needs.

Practice

Practice makes perfect as the old adage says. There is no substitute for practice. Evacuation drills should be held frequently enough to insure people in the community are familiar with the basic responsibilities of evacuation. Small scale drills and/or table top exercises can be used to hone the skills of everyone involved. Proficiency at the small scale will help to assure the stumbling stones have been identified and addressed so large scale operations will proceed with fewer difficulties.

Method

When removing people from harms way it is important to provide specific instructions to the evacuees in a timely manner. To simply demand that someone leave the area because of a fire will create panic, mistrust and a barrage of questions and arguments that may jeopardize the evacuation. The Fire Service is not typically trained or

staffed to conduct a large area evacuation. Local Emergency Management and Law Enforcement organizations have this ability and authority. Fire Service may assist when requested but must remember our primary responsibility is fire protection. Even Law Enforcement personnel lack the authority to force anyone to leave their property however, once an individual has left they may be prohibited from re-entering the hazard area. Evacuations will most likely take place in two steps. First, the evacuees will be directed to an assemble point designated and arranged by the Incident Commander. Individual sub-elements of this plan list potential areas to be considered as assemble points. Once these areas have been established, the local office of Emergency Management can arrange for the transportation of evacuees to a shelter point. Each designated assemble point must have an onsite coordinator to provide information and direction to evacuees. King County Office of Emergency Management operates from a decentralized system and has no specific public emergency notification capability. Public notification will be issued through the Emergency Alert System and broadcast from local television and radio stations.

Activation

Initiation of an evacuation will be through a local community Office of Emergency Management. It will be necessary to coordinate evacuation needs with local jurisdiction abilities. Prior to initiating an evacuation there are several specific considerations that must be evaluated by the Incident Commander.

- Are structural protection resources in place?
- What is the expected fire behavior for the next burn period?
- Is the local Office of Emergency Management current with the fire status?
- What is the community level of awareness of the incident?

- Have specific assemble points been established and confirmed?

When these questions have been answered and the decision to evacuate is made the Incident Commander should contact the local Office of Emergency Management listed in the specific sub-set plans to request assistance. The Incident Commander should be prepared to respond to basic questions such as:

- Why is an evacuation necessary?
- What is the specific area to be evacuated?
- When does the evacuation need to take place?
- Who is making the request?
- What steps have already been taken?
- Where is the designated assemble point?

The preplanning accomplished by local Office of Emergency Management should make evacuations less complex and reduce the Incident Management Teams' work load. It is the responsibility of the local Office of Emergency Management to contact the county office if assistance is needed.

This Evacuation Plan will use three levels of activation. The Incident Commander is responsible for requests to activate and de-activate this plan through the local Office of Emergency Management.

Evacuation levels

- Level 1 (Advisory) - The current status of projected condition of the fire indicates potential threat to life and property are severe. Provide information to residents about the situation but no action is required.
- Level 2 (Watch) - Residents should be advised to prepare to evacuate at a moments notice. Take necessary steps to secure valuables, livestock, pets and personal belongings for a short notice evacuation.
- Level 3 (Warning) - Residents are advised to evacuate immediately. The risk of fire is imminent. Grave danger may face those who do not depart.

De-activation

When the potential for loss of life and property from unstable fire condition has subsided, the Incident Commander can recommend to the local Office of Emergency Management to allow residents back into an area and stand down the evacuation notice.

NOTE:

The King County Office of Emergency Management has recently released a document entitled KC UASI Evacuation Template Project. The focus of this document is to provide a uniform and consistent approach to evacuation planning. One of the foreseeable outcomes of this project is a more transparent cross section to individual jurisdictional evacuation plans. This homogeneous characteristic will greatly enhance the ability of an incident management team to function across geo-political lines.

At the time this plan was developed the King County document was less than 60 days old and as such is not incorporated herein. Inclusion of the concept of the King County document should be considered during a subsequent review of this plan.

EMERGENCY NOTICE

LEVEL 1

AN EVACUATION ADVISORY HAS BEEN ISSUED FOR THIS AREA

PERSONS ARE ADVISED THAT CURRENT OR PROJECTED THREATS FROM HAZARDS ASSOCIATED WITH THE APPROACHING FIRE ARE SEVERE.

THIS IS THE TIME FOR PREPERATION AND PRECAUTIONARY MOVEMENT OF PERSONS WITH SPECIAL NEEDS, MOBILE POROPERTY AND (UNDER CERTAIN CIRCUMSTANCES) PETS AND LIVESTOCK.

YOU WILL BE KEPT INFORMED AS CONDITIONS CHANGE. AREA RADIO AND TELEVISION STATIONS HAVE BEED ASKED TO BROADCAST PERIODIC UPDATES.

IF CONDITIONS WORSEN, WE WILL MAKE EVERY ATTEMPT TO CONTACT YOU. IF YOU ARE ABSENT FROM YOUR HOME FOR MORE THAN A SHORT PERIOD OF TIME, PLEASE LEAVE A NOTE WITH YOUR NAME AND CONTACT PHONE NUMBER IN A VISABLE LOCATION SO WE MAY ATTEMPT CONTACT.

EMERGENCY NOTICE

LEVEL 2

AN EVACUATION WATCH HAS BEEN ISSUED FOR THIS AREA

CONDITIONS INDICATE A HIGH PROBABILITY THAT HAZARDS ASSOCIATED WITH THE APPROACHING FIRE WILL SEVERELY LIMIT OUR ABILITY TO PROVIDE EMERGENCY SERVICE PROTECTION TO THIS AREA. DANGEROUS CONDITIONS EXIST THAT MAY THREATEN YOUR PROPERTY.

YOU MUST PREPARE TO LEAVE AT A MOMENTS NOTICE

FIRE AND LAW ENFORCEMENT PERSONNEL ARE WORKING IN THIS AREA TO PROVIDE SPECIFIC INFORMATION ABOUT WHEN TO LEAVE AND ROUTES TO BE TAKEN.

THIS MAY BE YOUR ONLY NOTICE

YOU WILL BE KEPT ADVISED AS CONDITIONS CHANGE. AREA RADIO AND TELEVISION STATIONS HAVE BEEN ASKED TO BROADCAST PERIODIC UPDATES.

EMERGENCY NOTICE

LEVEL 3

AN EVACUATION WARNING HAS BEEN ISSUED FOR THIS AREA

CURRENT CONDITIONS PRESENT SPECIFIC AND IMMEDIATE THREATS TO THE LIVES AND SAFETY OF PERSONS WITHIN THIS AREA.

EVACUATE IMMEDIATELY

FIRE AND LAW ENFORCEMENT PERSONNEL ARE WORKING IN THIS AREA TO PROVIDE SPECIFIC INFORMATION ON THE ROUTES TO USE FOR EVACUATION.

IF YOU CHOOSE TO IGNORE THIS WARNING, YOU MUST UNDERSTAND THAT EMERGENCY SERVICES MAY NOT BE AVAILABLE. VOLUNTEERS WILL NOT BE ALLOWED TO ENTER THIS AREA TO PROVIDE ASSISTANCE.

ROAD BLOCKS AND 24 HOUR PATROLS WILL BE ESTABLISHED IN THE AREA. RESIDENTS WILL NOT BE ALLOWED TO RETURN UNTIL CONDITIONS ARE SAFE.

AREA RADIO AND TELEVISION STATIONS HAVE BEEN REQUESTED TO BROADCAST PERIODIC UPDATES.

STRUCTURAL PROTECTION CONCEPTS

This structural protection plan has been developed for the North Bend planning area. This plan is offered as a useable and realistic collection of information for the fire incident manager. The intent is to reduce the loss of structural values at risk. Some of the statements made in this plan may be general in nature but will represent the broadest spectrum of items/tasks contemplated in the discussion at hand.

The initiation of a structural protection plan must be closely associated with the evacuation of at risk persons. The protection of human life is the ultimate priority for all fire service personnel. Not until the safety of exposed persons has been secured can structural protection be implemented.

As is typical, this structural protection plan will assume three levels of risk to exposed structures. Further, consideration may be given to the relative importance of individual structures. The most significant difference in this plan is that the emphasis is on the safety of the firefighter involved in the operation and not the survivability of any given structure or group of structures. The three basic levels of risk to structures from wildfire are closely aligned with the alerting levels for evacuation:

1. SAFETY FACTOR CATEGORY 1 - Those structures or groups of structures that are not directly threatened by a fire and can be defended with minimum risk to firefighters. Because of any number of circumstances which may include; level of protection, location away from the main fire, fire resistive construction and/or preparation of the area prior to the advance of the fire, these structures are considered defendable. Frequently, one engine can protect several structures.
2. SAFETY FACTOR CATEGORY 2 - Those structures or groups of structures that are directly threatened by a fire but have not become involved. These structures

may be protected without unduly jeopardizing the safety of fire suppression crews working at the scene provided safety zones and escape routes are in close proximity to the structures. Time is a key element in this category of structure protection. There must be sufficient time prior to the advance of the fire front for fire crews to set-up an appropriate level of protection. This level of protection is usually characterized by the assignment of one engine per structure.

3. SAFETY FACTOR CATEGORY 3 - Those structures or groups of structures that are involved in fire or there is no time available for the safe deployment of a fire crew. These structures are considered outside the acceptable risk parameters.

Other contributing factors for these three conditions are typical of those found in training on interface fires and are not the focus of this plan.

In the event of a major wildfire in the North Bend and vicinity planning area the availability of resources will be a critical challenge. It is important to consider ordering structural protection resources well in advance of the need. Many of these resources may be traveling from other parts of the state and could be 10-12 hours away especially for crews effected by work/rest issues.

Given the level of risk (Moderate) associated with most of the North Bend and vicinity planning area the most logical means of protecting structures is to designate a structural protection group. Resource requests made for the structural protection group should be heavily influenced by the availability of water for fire protection. In North Bend and the surrounding area there is a municipal type water systems with strategically placed fire hydrants. Strike teams of types 1, 2, and/or 3 Structure engines would be effective in this area. Outside of this communities in the areas without water a request for Structural Task Forces,

with water tender support, will be a better choice. Again, be reminded that many of the closest resources may already be committed to an incident in this area through mutual aid agreements.

Structure protection resources should be deployed based on the results of a triage and categorizing of exposed structures. Maximum effort should be aimed at those structures in the acceptable risk category. The goal should be to improve the survivability of these structures by reducing the ignition factors of the structure and surroundings. Time permitting, an engine crew can have a valuable impact on the survivability of a building by reducing the ignitibility of the structure and the immediate area around it. Without that time, crews may only be able to pre-treat with foam and evacuate. Regardless of the actions of the engine crew, the engine boss or team leader must remain vigilant and aware of the fire situation.

ALWAYS REMEMBER-SAFETY FIRST

To facilitate the timely response of additional resources Trigger Points for the activation of this plan must be established well in advance. A Fire Behavior analyst should work with the planning section to identify trigger points based on observed and predicted fire activity.

Special consideration should be given to the structural protection resources that are working the incident during the initial burn period. Many of these resources may have been working for several hours without proper rest or nourishment. The rehabilitation of these forces is a top priority for the success of any operation in the near term.

Another critical point of structural protection is the ability to convey to the public the decision making process for selecting structures for protection. Many citizens will become irate if told their house is not worth saving however,

on the other hand, they may exhibit more understanding if told the area presents too many risks to firefighter safety. Any incident that contemplates the need for structural protection should include a response by the King County Office of Emergency Management.

One of the more critical parts of structural protection is the reconnaissance and evaluation of individual properties. Given the time and resources this is best accomplished by the initiation of a physical review of each parcel that contains structures at risk. This review should result in specific documentation for each property. The preferable recording format is the Structural Protection Checklist, See appendix B.

Some structures may require individual attention during the evaluation process. Using local resources to help identify structures that may have an economic, cultural or historic significance is valuable.

Activation

At any point in an incident that the fire reaches a pre-designated trigger point the structural protection plan should be initiated. The activation of this portion of the plan will utilize a 3 (three) level approach that mirrors the evacuation plan. It is the responsibility of the Incident Commander to activate and de-activate this plan.

Structure protection levels

- LEVEL 1, Advisory - Size-up the structural protection challenges and begin to identify the resources available that can be deployed for the task of protection. Order additional resources needed to protect the values at risk. Continue to gather intelligence. Provide information to local residents.

- LEVEL 2, Warning - Provide for the safety of firefighters and residents. Assign resources to structural protection and carry out pre-fire actions to reduce the ignitability of structures and surroundings. Assist with evacuation if requested. Identify and record locations of residents not evacuating.
- LEVEL 3, Watch - Immediately and safely initiate structural protection when fire threat is imminent. Deploy resources to safely protect lives, improved property, infrastructure and or environmental values at risk.

De-activation

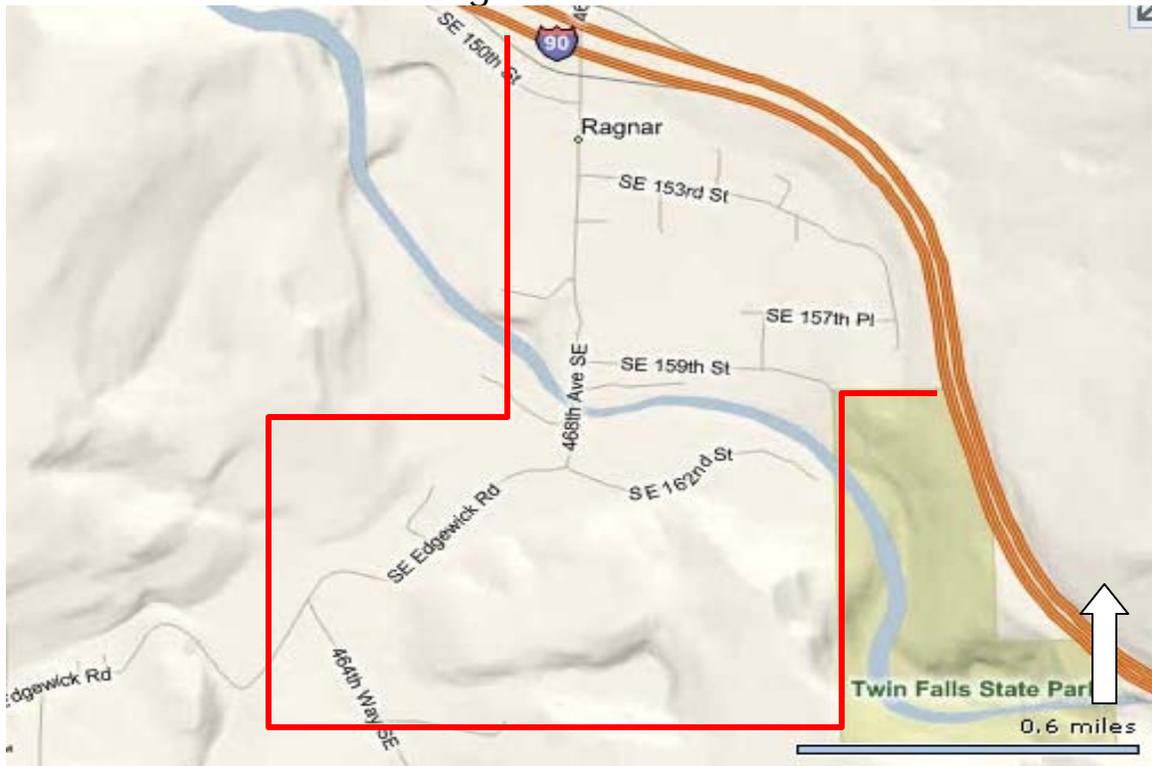
Identify and release or redeploy resources from areas no longer threatened by fire activity.

PART II

Planning area sub-sets

EDGEWICK

Edgewick streets



Edgewick overhead



STRUCTRUE PROTECTION
Edgewick
Sec 9 R9E T23N

GENERAL – Edgewick is an established neighborhood southeast of North Bend. The community has a single access which leads out to Interstate 90. The far south end of Edgewick road is narrow and lacks turnarounds. Several of the homes in this area are accessed by long driveways. Interface exposure to the north and the east are limited by Interstate 90.

PRIMARY PROTECTION - Eastside Fire and Rescue
175 Newport Way N.W.
Issaquah, WA 98027
425.392.3433

HAZARDS –

- This area is subject to extreme east wind events
- This location is also subject to unexpectedly high diurnal winds.
- Smoke obstruction of Interstate 90 may result in traffic delays and or motor vehicle accidents.
- The S.E. Edgewick Road bridge over the South Fork of the Snoqualmie River is narrow.

WATER SUPPLY – The Edgewick area is served by a municipal type water system with hydrants located through the community.

TACTICAL CONSIDERATIONS – Keeping a fire from leaving the Edgewick neighborhood will be assisted by two predominate physical barriers. Interstate 90 provides a fire break on the north and east parameters of the community. The South Fork of the Snoqualmie River shields the south and west sides. Using these same physical breaks may be a consideration in keeping a fire out of this area.

RESOURCE NEEDS – One additional wildland engine strike team to patrol and extinguish spot fires should prove adequate.

PROBABILITY OF SUCCESS – High (90% or greater)

COMMUNITY FIRE RISK ASSESSMENT - Using the NFPA 299 community wildfire hazard assessment methodology, Edgewick was rated for common features such as access, vegetation, topography, fire protection and utilities. Then several homes were rated for roof coverings and other existing conditions. Their totals were averaged to establish a community rating. See attached NFPA 299 form for Edgewick. Edgewick has been rated as having a *moderate* (57 points) fire risk. Individual homeowners and the community can significantly reduce the risk of home ignitions during a wildfire event by being prepared.

RECOMMENDATIONS TO REDUCE FIRE RISK SEVERITY:

These are specific recommendations for the community of Edgewick. There are several other general recommendations that may help reduce the potential of fire. The general recommendations can be found in Appendix E.

- Work with the Power utility to reduce the fuels in the utility right of way.
- Work with the owners of undeveloped property to reduce and/or eliminate the heavy growth of highly combustible Scotch Broom in the area.

Edgewick evacuation plan

King County operates under a decentralized program for evacuations. When an evacuation is required for any reason the initial operation is conducted by the local authorities closest to the effected area. In this case the closest community with an evacuation capability is North Bend. Evacuations from Edgewick must be coordinated through the North Bend Police Department. North Bend Police should be advised as soon as possible when an evacuation is being considered. To facilitate an efficient evacuation, the following checklist has been developed.

___ Establish the trigger points for all three levels of evacuation.

___ Decide the geographic areas that will need to be evacuated.

___ Identify the approximate number of people that may be evacuated.

___ Identify the time frame within which the evacuation will need to take place.

The evacuation process involves directing evacuees to a central assembly location. From this location, transportation can be arranged to the evacuation center. The Incident Management Team is responsible for securing a site to serve as an assembly point. A recommended location is listed below.

WHEN THE EVACUATION ORDER IS ISSUED

___ Contact the North Bend Police Department and request the services you need.

- They can provide transportation services among others.
- They will notify the King County Sheriffs office.

RECOMMENDED ASSEMBLY POINT

There is no recommended assembly point. Due to the proximity of Edgewick to North Bend evacuated community members can be directed to the shelter.

Example of fuels in Edgewick



Dead end street near Twin Fall Park



Name of area or address receiving assessment
Edgewick

	Points	House or area	Notes
A. Subdivision Design			
1. Ingress and egress			
Two or more roads in/out	0		
One road in/out	7	7	
2. Road width			
Greater than 24 feet	0		
Between 20 and 24 feet	2	2	
Less than 20 feet wide	4		
3. All-season road condition			
Surfaced, grade < 5%	0	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	0	
> = 300ft, with turnaround	2		
< = 300ft, no turnaround	4		
> = 300ft, no turnaround	5		
5. Street signs			
Present (4 in. in size and reflectorized)	0	0	
Not present	5		
B. Vegetation (Fuel Models)			
1. Predominant vegetation			
Light (grasses, forbs)	5		
Medium (light brush and small trees)	10	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	10	
Less than 30 feet	25		
C. Topography			
1. Slope			
Less than 9%	1	1	
Between 10-20%	4		
Between 21-30%	7		
Between 31-40%	8		
Greater than 41%	10		

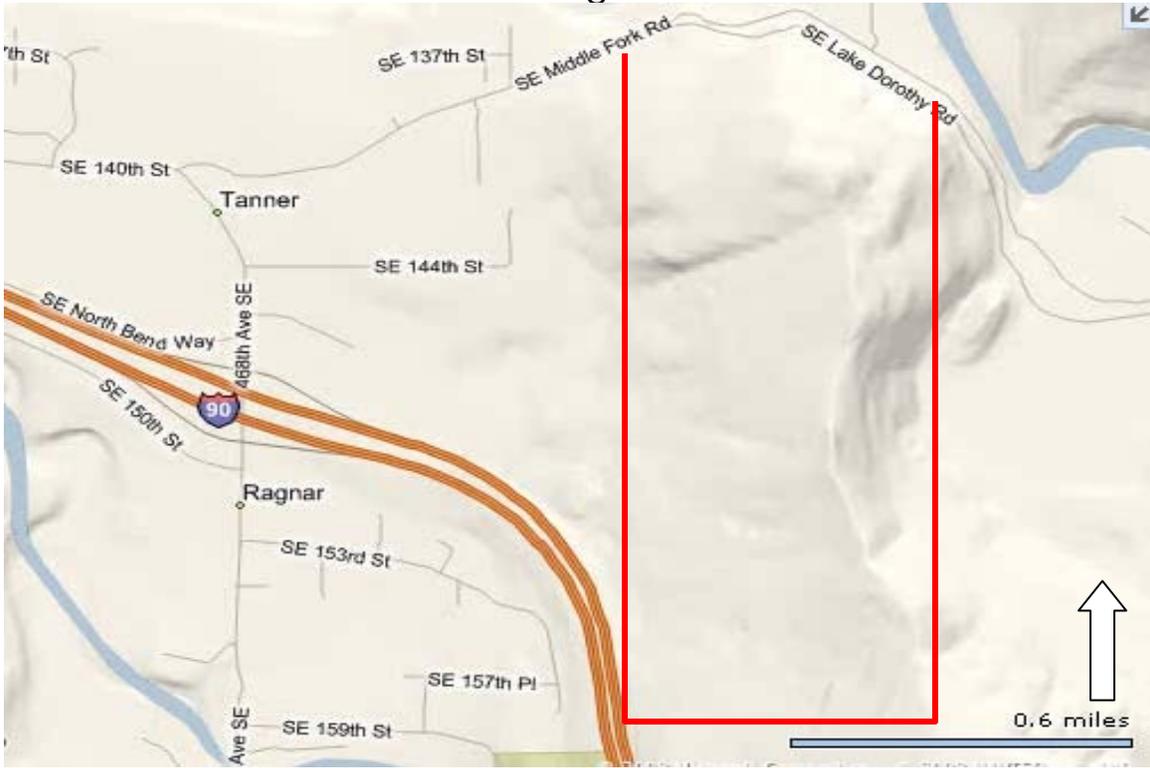
Totals for this page

30

	Points	House or area	Notes
D. Additional Rating Factors			
1. Topography that adversely affects wildland fire behavior	0 - 5	0	
2. Area with history of higher fire occurrence	0 - 5	0	
3. Areas of unusually severe fire weather and winds	0 - 5	3	east wind events
4. Separation of adjacent structures	0 - 5	0	
E. Roofing Materials			
1. Construction material			
Class A roof (metal, tile)	0		
Class B roof (composite)	3	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	10	
2. Setback from slopes > 30%			
More than 30 feet to slope	1		
Less than 30 feet to slope	5		
Not applicable	0	0	
G. Available Fire Protection			
1. Water source availability (on site)			
500 gpm pressurized hydrants < 1000ft apart	0	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	1	
Station greater than 5 miles	3		
3. Fixed fire protection			
Sprinkler system (NFPA 13, 13R, 13D)	0		
None	5	5	
H. Utilities (Gas and Electric)			
1. Placement			
All underground utilities	0		
One underground, one aboveground	3		
All aboveground	5	5	
Totals for this page		27	
I. Totals for Risk Assessments			
Totals for page 1 and 2		57	
1. Low Hazard: < 39 points			
2. Moderate Hazard: 40-69 points		57	
3. High Hazard: 70-112 points			
4. Extreme Hazard: 113 > points			

GROUSE RIDGE

Grouse Ridge streets



Grouse Ridge overhead



Not to scale

STRUCTURE PROTECTION
Grouse Ridge
Sec 20 R9E T23N

GENERAL – Grouse Ridge is the designation of the hill that forms the east border of this planning unit. It is in fact a ridge that extends from the Middle Fork Road south and then parallels I-90. Grouse Ridge blends with the surrounding terrain near the Twin Falls State Park. Although this ridge is not populated it has heavy fuels that could cause westerly spotting in the event of a significant wildland fire. The current development in this area is commercial and related to services provided to travelers who have exited I-90.

PRIMARY PROTECTION - Eastside Fire & Rescue
Station 87
112 W. Second
North Bend, WA
425.313.3200 (Issaquah)

HAZARDS –

- This area is subject to East Wind events.

WATER SUPPLY – The developed parts of this area are provided with a municipal type water system which has hydrants located throughout.

TACTICAL CONSIDERATIONS – The primary additional tactical concern on Grouse Ridge will be not to allow the fire to back down around the open pit gravel mining operation and access the commercial strip along 486th Ave. S.E. Smoke management will also be important to maintain visibility on I-90. Firefighting operations on Grouse Ridge should not present many situational challenges outside the normal tactical range.

RESOURCE NEEDS – No additional resources are anticipated.

PROBABILITY OF SUCCESS – High (90% or better)

COMMUNITY FIRE RISK ASSESSMENT - Using the NFPA 299 community wildfire hazard assessment methodology, Grouse Ridge was rated for common features such as access, vegetation, topography, fire protection and utilities. Then several homes were rated for roof coverings and other existing conditions. Their totals were averaged to establish a community rating. See attached NFPA 299 form for Grouse Ridge. Grouse Ridge has been rated as having a *low (34 points)* fire risk. Individual homeowners and the community can significantly reduce the risk of home ignitions during a wildfire event by being prepared.

RECOMMENDATIONS TO REDUCE FIRE RISK SEVERITY:

These are specific recommendations for the community of Grouse Ridge. There are several other general recommendations that may help reduce the potential of fire. The general recommendations can be found in Appendix E.

- Continue to maintain the defensible space around structures.
- Work with the owners of undeveloped property to reduce and/or eliminate the heavy growth of highly combustible Scotch Broom in the area.

Grouse Ridge Evacuation Plan

King County operates under a decentralized program for evacuations. When an evacuation is required for any reason the initial operation is conducted by the local authorities closest to the effected area. In this case the closest community with an evacuation capability is North Bend. Evacuations from Grouse Ridge must be coordinated through the North Bend Police Department.

North Bend Police should be advised as soon as possible when an evacuation is being considered. To facilitate an efficient evacuation, the following checklist has been developed.

___ Establish the trigger points for all three levels of evacuation.

___ Decide the geographic areas that will need to be evacuated.

___ Identify the approximate number of people that may be evacuated.

___ Identify the time frame within which the evacuation will need to take place.

The evacuation process involves directing evacuees to a central assembly location. From this location, transportation can be arranged to the evacuation center. The Incident Management Team is responsible for securing a site to serve as an assembly point. A recommended location is listed below.

WHEN THE EVACUATION ORDER IS ISSUED

___ Contact the North Bend Police Department and request the services you need.

- They can provide transportation services among others.
- They will notify the King County Sheriffs office.

RECOMMENDED ASSEMBLY POINT

There is no recommended assembly point. Due to the proximity of Grouse Ridge to North Bend evacuated community members can be directed to the shelter.

Commercial area west of Grouse Ridge



Additional commercial area other side of street



Name of area or address receiving assessment
Grouse Ridge

	Points	House or area	Notes
A. Subdivision Design			
1. Ingress and egress			
Two or more roads in/out	0	0	
One road in/out	7		
2. Road width			
Greater than 24 feet	0	0	
Between 20 and 24 feet	2		
Less than 20 feet wide	4		
3. All-season road condition			
Surfaced, grade < 5%	0	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	0	
> = 300ft, with turnaround	2		
< = 300ft, no turnaround	4		
> = 300ft, no turnaround	5		
5. Street signs			
Present (4 in. in size and reflectorized)	0	0	
Not present	5		
B. Vegetation (Fuel Models)			
1. Predominant vegetation			
Light (grasses, forbs)	5		
Medium (light brush and small trees)	10	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	3	
30-70 ft of treatment from buildings	10		
Less than 30 feet	25		
C. Topography			
1. Slope			
Less than 9%	1	1	
Between 10-20%	4		
Between 21-30%	7		
Between 31-40%	8		
Greater than 41%	10		

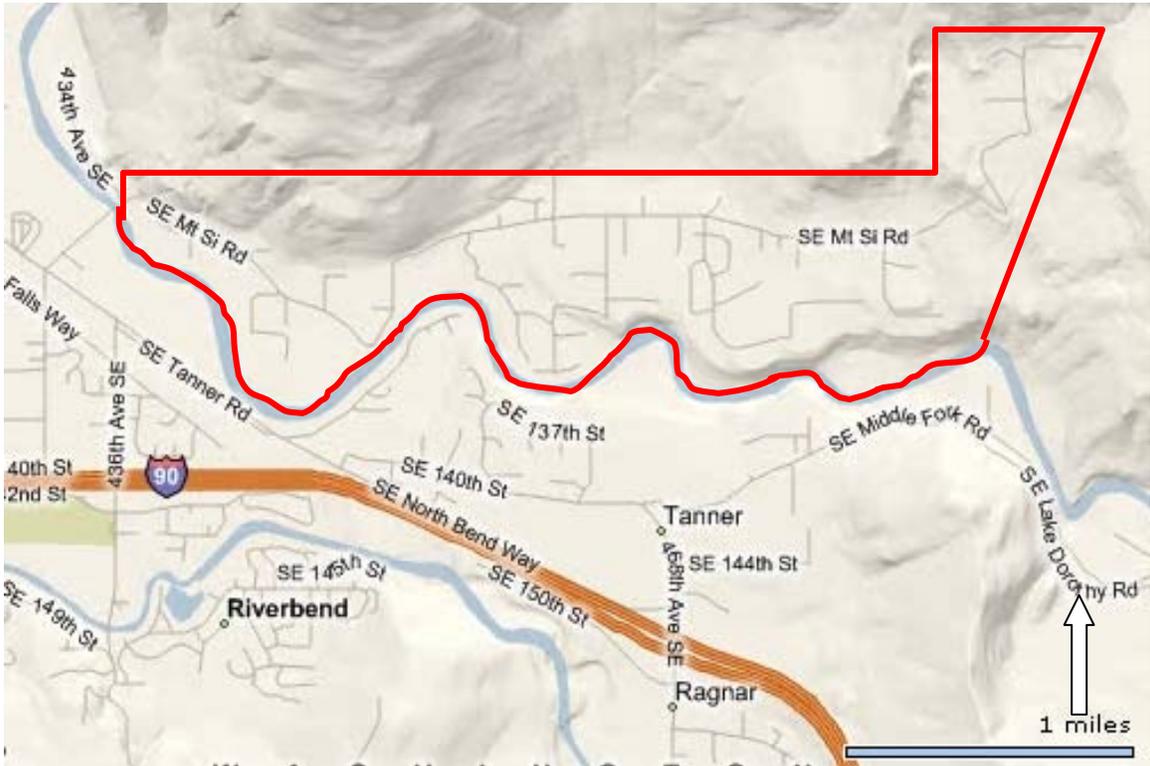
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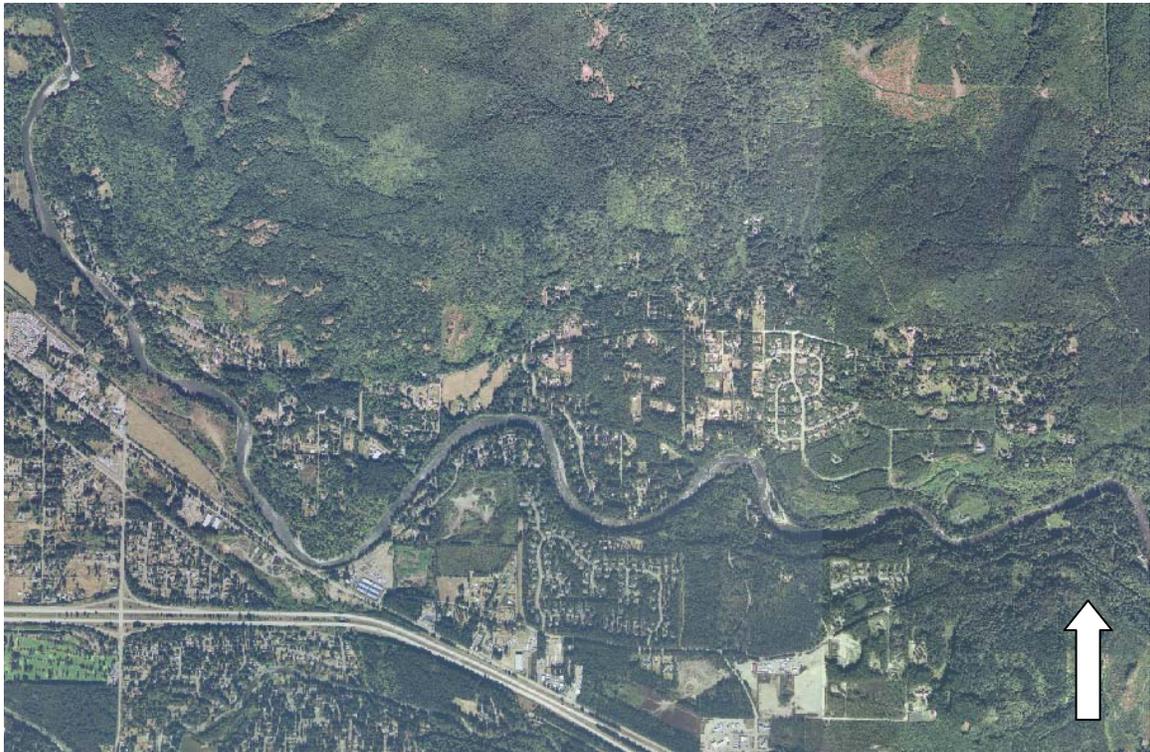
	Points	House or area	Notes
D. Additional Rating Factors			
1. Topography that adversely affects wildland fire behavior	0 - 5	0	
2. Area with history of higher fire occurrence	0 - 5	0	
3. Areas of unusually severe fire weather and winds	0 - 5	3	East winds
4. Separation of adjacent structures	0 - 5	0	100 feet or greater
E. Roofing Materials			
1. Construction material			
Class A roof (metal, tile)	0		
Class B roof (composite)	3	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	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	0	
G. Available Fire Protection			
1. Water source availability (on site)			
500 gpm pressurized hydrants < 1000ft apart	0	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	1	
Station greater than 5 miles	3		
3. Fixed fire protection			
Sprinkler system (NFPA 13, 13R, 13D)	0		
None	5	5	
H. Utilities (Gas and Electric)			
1. Placement			
All underground utilities	0		
One underground, one aboveground	3	3	
All aboveground	5		
Totals for this page		20	
I. Totals for Risk Assessments			
Totals for page 1 and 2		34	
1. Low Hazard: < 39 points		34	
2. Moderate Hazard: 40-69 points			
3. High Hazard: 70-112 points			
4. Extreme Hazard: 113 > points			

MT. SI ROAD

Mt. Si Road streets



Mt Si Road overhead



Map not to scale

STRUCTURE PROTECTION
Mt. Si Road
Sec 12 R8E T23N
Sec 7 R9E T23N

GENERAL – Mt. Si Road wind its way along the southern foot of Mt. Si. This long dead end road provides access to several homes and residential developments north of the middle fork of the Snoqualmie River. This is a well established area where most of the homes are from 10 to 60 years old. The majority of homes are close to the road or served by short driveways. The road itself is very narrow in places and is not conducive to rapid movement of equipment or apparatus.

HAZARDS –

- Extreme caution must be used traveling this narrow road.
- LPG tanks are typical in the area.
- This is a long dead end road. Crews should be continually reminded of this fact.

WATER SUPPLY – There is a municipal type water system in the Mt. Si. Road area with hydrants accessible for fire protection.

TACTICAL CONSIDERSTIONS – Mt. Si Road represents a high concentration of structures and several hundred residents. Evacuation of this area may be lengthy and should be considered early. Clear communications must be maintained with crews working this area to assure escape is available. Aggressive patrols should be maintained along Mt. Si Road to monitor fires' progress. There is a clear danger of a structure fire being the precipitating event to an even bigger wildfire here. Structure firefighters should be reminded to protect the wildland fuels as an exposure during major structure fires.

RESOURCE NEEDS – In the event of a major fire in the Mt Si Road area there should be at least two additional structural task forces requested along with one type II dozer and a strike team of wildland engines.

PROBABILITY OF SUCCESS – Moderate (65% - 75%)

COMMUNITY FIRE RISK ASSESSMENT - Using the NFPA 299 community wildfire hazard assessment methodology, Mt. Si Road was rated for common features such as access, vegetation, topography, fire protection and utilities. Then several homes were rated for roof coverings and other existing conditions. Their totals were averaged to establish a community rating. See attached NFPA 299 form for Mt. Si Road. Mt. Si Road has been rated as having a *High* (78 points) fire risk. Individual homeowners and the community can significantly reduce the risk of home ignitions during a wildfire event by being prepared.

RECOMMENDATIONS TO REDUCE FIRE RISK SEVERITY:

These are specific recommendations for the community of Mt. Si Road. There are several other general recommendations that may help reduce the potential of fire. The general recommendations can be found in Appendix E.

- Work with the Power utility to reduce the fuels in the utility right of way.
- Work with the owners of undeveloped property to reduce and/or eliminate the heavy growth of highly combustible Scotch Broom in the area.
- Post fire danger warning signs in the community.
- Provide permanent fuel breaks around all structures
- Initiate a Firewise program.

Mt. Si Road evacuation plan

King County operates under a decentralized program for evacuations. When an evacuation is required for any reason the initial operation is conducted by the local authorities closest to the effected area. In this case the closest community with an evacuation capability is North Bend. Evacuations from Mt. Si Road must be coordinated through the North Bend Police Department. North Bend Police should be advised as soon as possible when an evacuation is being considered. To facilitate an efficient evacuation, the following checklist has been developed.

___ Establish the trigger points for all three levels of evacuation.

___ Decide the geographic areas that will need to be evacuated.

___ Identify the approximate number of people that may be evacuated.

___ Identify the time frame within which the evacuation will need to take place.

The evacuation process involves directing evacuees to a central assembly location. From this location, transportation can be arranged to the evacuation center. The Incident Management Team is responsible for securing a site to serve as an assembly point. A recommended location is listed below.

WHEN THE EVACUATION ORDER IS ISSUED

___ Contact the North Bend Police Department and request the services you need.

- They can provide transportation services among others.
- They will notify the King County Sheriffs office.

RECOMMENDED ASSEMBLY POINT

There is no recommended assembly point. Due to the proximity of Mt. Si Road to North Bend evacuated community members can be directed to the shelter.

One of few structures on Mt. Si. Road with defensible space



Mt. Si Road fuels



Name of area or address receiving assessment
Mt. Si Road

	Points	House or area	Notes
A. Subdivision Design			
1. Ingress and egress			
Two or more roads in/out	0		
One road in/out	7	7	
2. Road width			
Greater than 24 feet	0		
Between 20 and 24 feet	2		
Less than 20 feet wide	4	4	
3. All-season road condition			
Surfaced, grade < 5%	0		
Surfaced, grade > 5%	2	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	
5. Street signs			
Present (4 in. in size and reflectorized)	0	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	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	10	
Less than 30 feet	25		
C. Topography			
1. Slope			
Less than 9%	1	1	
Between 10-20%	4		
Between 21-30%	7		
Between 31-40%	8		
Greater than 41%	10		

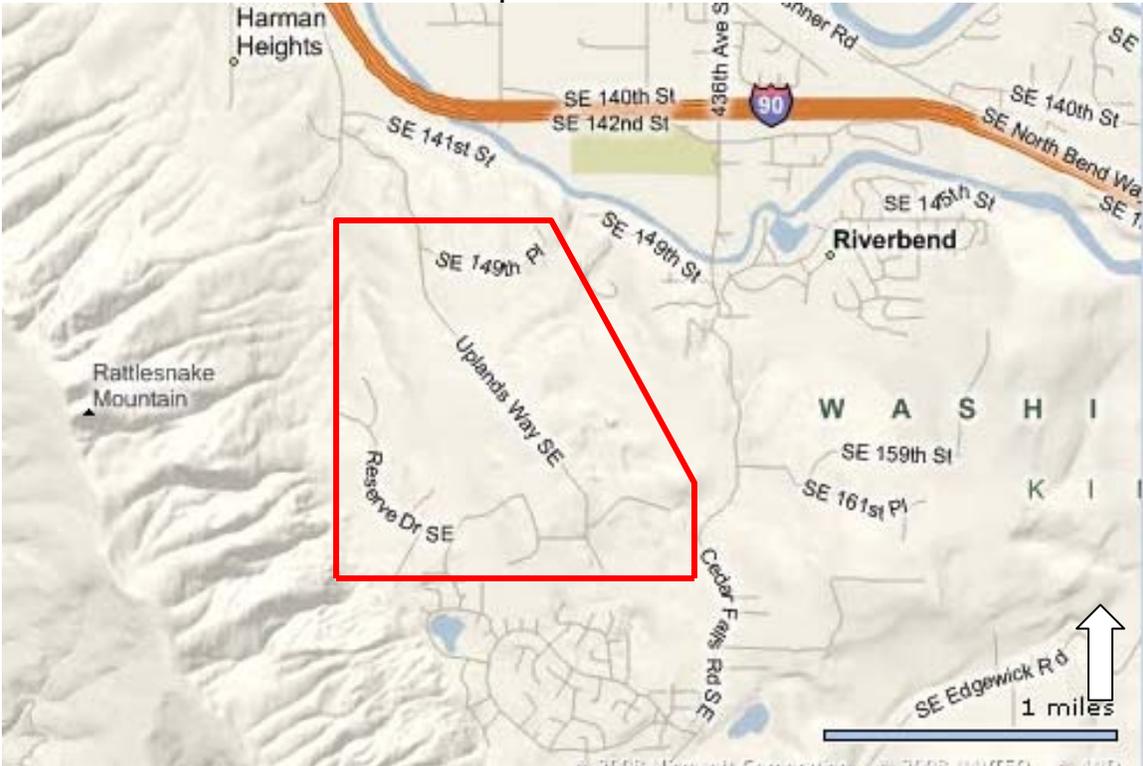
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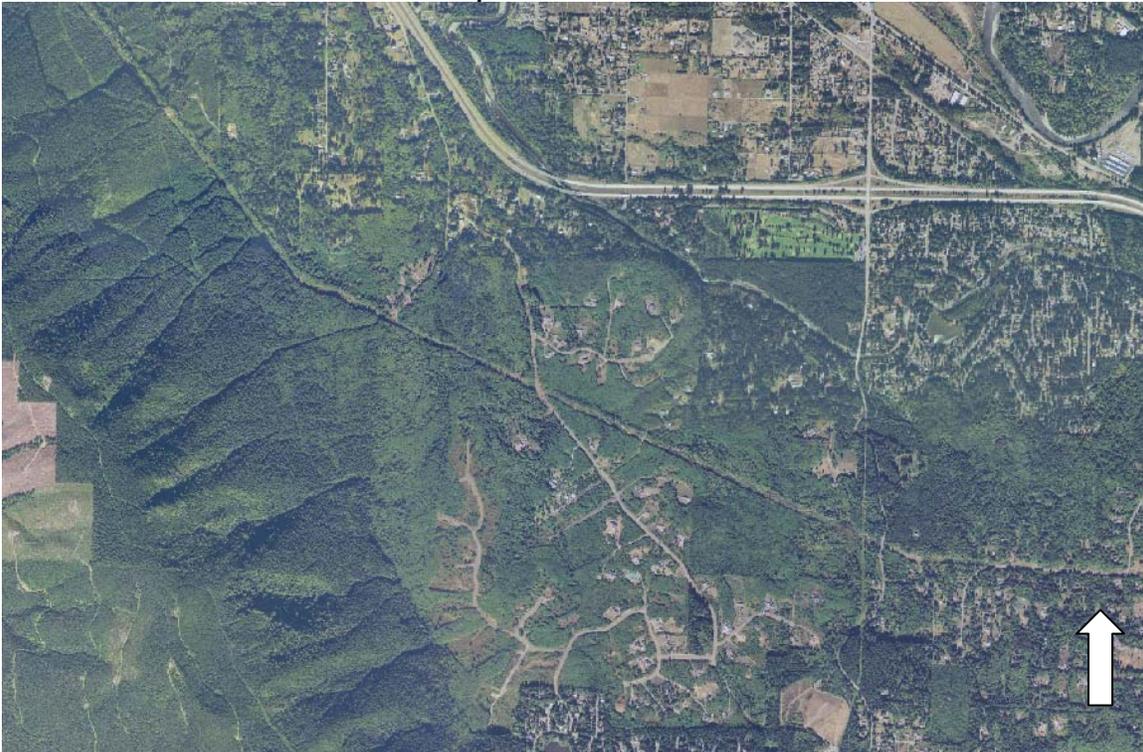
	Points	House or area	Notes
D. Additional Rating Factors			
1. Topography that adversely affects wildland fire behavior	0 - 5	0	
2. Area with history of higher fire occurrence	0 - 5	0	
3. Areas of unusually severe fire weather and winds	0 - 5	3	East wind events
4. Separation of adjacent structures	0 - 5	2	
E. Roofing Materials			
1. Construction material			
Class A roof (metal, tile)	0		
Class B roof (composite)	3	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	10	
2. Setback from slopes > 30%			
More than 30 feet to slope	1		
Less than 30 feet to slope	5		
Not applicable	0	0	
G. Available Fire Protection			
1. Water source availability (on site)			
500 gpm pressurized hydrants < 1000ft apart	0	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	1	
Station greater than 5 miles	3		
3. Fixed fire protection			
Sprinkler system (NFPA 13, 13R, 13D)	0		
None	5	5	
H. Utilities (Gas and Electric)			
1. Placement			
All underground utilities	0		
One underground, one aboveground	3		
All aboveground	5	5	
Totals for this page		29	
I. Totals for Risk Assessments			
Totals for page 1 and 2		78	
1. Low Hazard: < 39 points			
2. Moderate Hazard: 40-69 points			
3. High Hazard: 70-112 points			
4. Extreme Hazard: 113 > points			
		78	

THE UPLANDS

The Uplands streets



The Uplands overhead



Not to scale

STRUCTURE PROTECTION

Sec 21 R8E T23N

GENERAL – The Uplands is a high-end executive development that is a poster child representation of wildland urban interface. This development is located in an area of mature second growth conifers and heavy brush. The multi million dollar structures are well separated on the large lots but have poor defensible space around them. The streets are wide and generally unobstructed however, many of the driveways are narrow and provide access to homes not visible from the street. The road grades vary from gentle slopes to 10% or greater. One of the positive aspects of this development is the water system which has the capability to provide fireflow.

HAZARDS –

- The second means of egress from this development is equipped with a lockable gate. Prior to committing suppression resources to the Uplands, assure this gate located in the 16600 block of 422nd Ave. SE is open. Bolt cutters may be needed to open the chain.
- This development is situated on a north aspect slope at the base of the Rattlesnake ridge. During an East Wind event the winds here will be extremely erratic.

WATER SUPPLY – The uplands is supplied by a municipal type system that has hydrants located within the development.

TACTICAL CONSIDERATIONS – Protection of the structures in this development may be ill-advised during an East Wind event. If threatened by the foreseeable approach of a fire there may be time to reduce the ignitibility of the structures by modifying the landscape around them. If time permits, cutting a line to redirect a fire may also be considered. These are large structures with large exposure surfaces that will require large resources to protect them.

RESOURCE NEEDS – Fire and weather conditions will contribute to the resource needs at The Uplands. The use of aerial assets should be considered early in any firefight. Additionally, one dozer and two structural strike teams should be requested on an early resource order.

PROBABILITY OF SUCCESS – Moderate at best (55% - 65%)

COMMUNITY FIRE RISK ASSESSMENT - Using the NFPA 299 community wildfire hazard assessment methodology, The Uplands was rated for common features such as access, vegetation, topography, fire protection and utilities. Then several homes were rated for roof coverings and other existing conditions. Their totals were averaged to establish a community rating. See attached NFPA 299 form for The Uplands. The Uplands has been rated as having a moderate (69 points) fire risk. Individual homeowners and the community can significantly reduce the risk of home ignitions during a wildfire event by being prepared.

RECOMMENDATIONS TO REDUCE FIRE RISK SEVERITY:

These are specific recommendations for the community of The Uplands. There are several other general recommendations that may help reduce the potential of fire. The general recommendations can be found in Appendix E.

- Develop defensibly space around all structures.
- Work with the owners of undeveloped property to reduce and/or eliminate the heavy growth of highly combustible Scotch Broom in the area.
- Work in conjunction with adjacent property owners to create a permanent fuel break around the development.

The Uplands evacuation plan

King County operates under a decentralized program for evacuations. When an evacuation is required for any reason the initial operation is conducted by the local authorities closest to the effected area. In this case the closest community with an evacuation capability is North Bend. Evacuations from The Uplands must be coordinated through the North Bend Police Department. North Bend Police should be advised as soon as possible when an evacuation is being considered. To facilitate an efficient evacuation, the following checklist has been developed.

___ Establish the trigger points for all three levels of evacuation.

___ Decide the geographic areas that will need to be evacuated.

___ Identify the approximate number of people that may be evacuated.

___ Identify the time frame within which the evacuation will need to take place.

The evacuation process involves directing evacuees to a central assembly location. From this location, transportation can be arranged to the evacuation center. The Incident Management Team is responsible for securing a site to serve as an assembly point. A recommended location is listed below.

WHEN THE EVACUATION ORDER IS ISSUED

___ Contact the North Bend Police Department and request the services you need.

- They can provide transportation services among others.
- They will notify the King County Sheriffs office.

RECOMMENDED ASSEMBLY POINT

There is no recommended assembly point. Due to the proximity of The Uplands to North Bend evacuated community members can be directed to the shelter.

Typical structure in the Uplands (\$ 2.3 Million)



Typical roadside clearing in the Uplands



Name of area or address receiving assessment
The Uplands

	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	2	22 feet
Less than 20 feet wide	4		
3. All-season road condition			
Surfaced, grade < 5%	0		
Surfaced, grade > 5%	2	2	6% to 9% in places
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	2	
< = 300ft, no turnaround	4		
> = 300ft, no turnaround	5		
5. Street signs			
Present (4 in. in size and reflectorized)	0	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	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	25	common
C. Topography			
1. Slope			
Less than 9%	1	1	
Between 10-20%	4		
Between 21-30%	7		
Between 31-40%	8		
Greater than 41%	10		

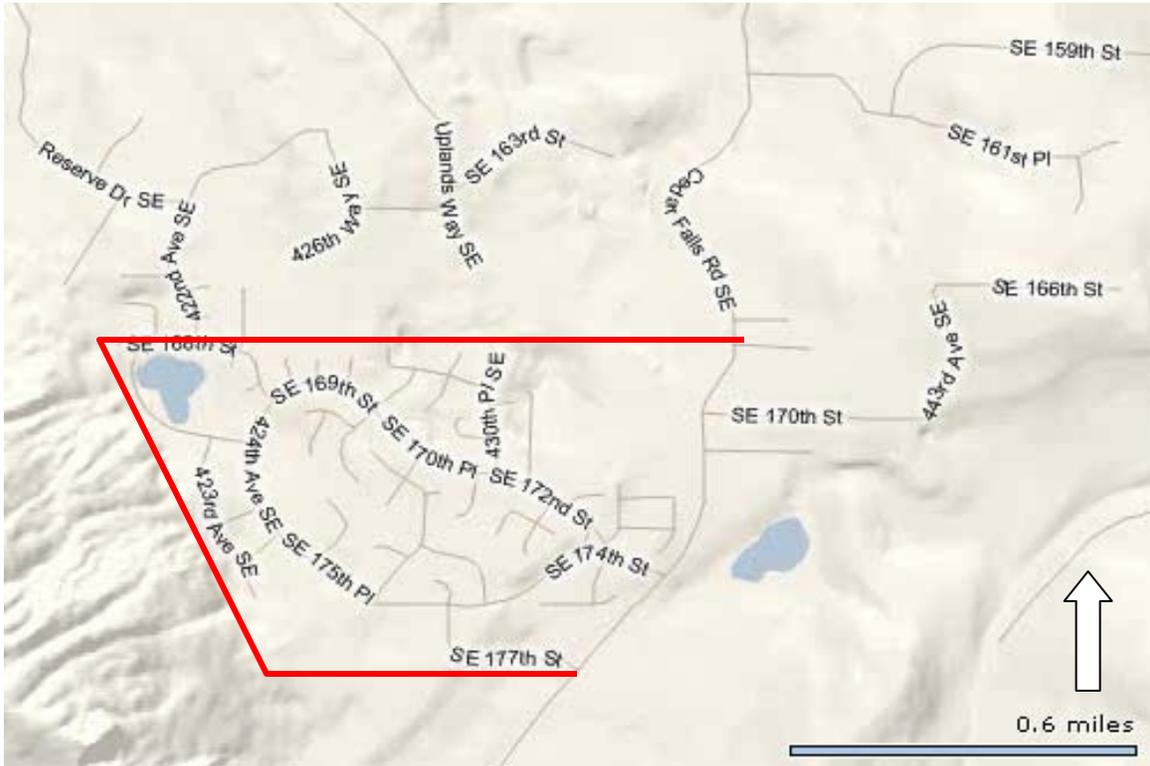
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52

	Points	House or area	Notes
D. Additional Rating Factors			
1. Topography that adversely affects wildland fire behavior	0 - 5	3	
2. Area with history of higher fire occurrence	0 - 5	0	
3. Areas of unusually severe fire weather and winds	0 - 5	5	East Wind events
4. Separation of adjacent structures	0 - 5	0	
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	0	
G. Available Fire Protection			
1. Water source availability (on site)			
500 gpm pressurized hydrants < 1000ft apart	0	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	1	
Station greater than 5 miles	3		
3. Fixed fire protection			
Sprinkler system (NFPA 13, 13R, 13D)	0		
None	5	5	
H. Utilities (Gas and Electric)			
1. Placement			
All underground utilities	0		
One underground, one aboveground	3	3	
All aboveground	5		
Totals for this page		17	
I. Totals for Risk Assessments			
Totals for page 1 and 2		69	
1. Low Hazard: < 39 points			
2. Moderate Hazard: 40-69 points		69	
3. High Hazard: 70-112 points			
4. Extreme Hazard: 113 > points			

WILDERNESS RIM

Wilderness Rim street



Wilderness Rim overhead



Map not to scale

STRUCTURE PROTECTION

Wilderness Rim

Sec 21 R8E T23N

GENERAL – Wilderness Rim is another example of unchecked growth in the interface area. This development has been in place for several years and is an example of why interface issues have become important. This is a small lot development that puts structures in close proximity with one another. The street system is confusing and promotes misdirection. Many of the structures have no defensible space at all while others have a minimal amount. Wilderness Rim is situated at the base of Rattlesnake ridge. A fire in this development could easily make a run up this ridge.

PRIMARY PROTECTION -

Eastside Fire & Rescue
175 Newport Way N.W.
Issaquah, WA 98027
425.392.3443

HAZARDS –

- Some of the streets are dead end without adequate turnaround for fire apparatus.
- Most of the streets are surfaced to only 18'.
- This area is subject to strong East Wind events.

WATER SUPPLY – Wilderness Rim is served by a municipal type water system with hydrants capable of providing fire flow.

TACTICAL CONSIDERATIONS – Due to the density of structures in Wilderness Rim early evacuation must be a consideration. During a major fire, the proximity of structures may promote rapid extension of the fire from one structure to another. Units working in this area should always have accurate maps and a good sense of direction. Around some homes the natural brush has been retained as landscape. This may also increase fire spread.

RESOURCE NEEDS – Due to the geographical area and the street make up two additional strike teams of structural engines should be ordered. Again, this is an ideal location to assign aerial assets.

PROBABILITY OF SUCCESS – Moderate (65%-75%)

COMMUNITY FIRE RISK ASSESSMENT - Using the NFPA 299 community wildfire hazard assessment methodology, Wilderness Rim was rated for common features such as access, vegetation, topography, fire protection and utilities. Then several homes were rated for roof coverings and other existing conditions. Their totals were averaged to establish a community rating. See attached NFPA 299 form for Wilderness Rim. Wilderness Rim has been rated as having a *high* (82 points) fire risk. Individual homeowners and the community can significantly reduce the risk of home ignitions during a wildfire event by being prepared.

RECOMMENDATIONS TO REDUCE FIRE RISK SEVERITY:

These are specific recommendations for the community of Wilderness Rim. There are several other general recommendations that may help reduce the potential of fire. The general recommendations can be found in Appendix E.

- Develop and implement a Firewise program.
- Work to develop permanent fuel breaks around the development.
- Work with the Power utility to reduce the fuels in the utility right of way.
- Work with the owners of undeveloped property to reduce and/or eliminate the heavy growth of highly combustible Scotch Broom in the area.
- Assure the gate at the secondary means of egress is maintained unlocked.

Wilderness Rim evacuation plan

King County operates under a decentralized program for evacuations. When an evacuation is required for any reason the initial operation is conducted by the local authorities closest to the effected area. In this case the closest community with an evacuation capability is North Bend. Evacuations from Wilderness Rim must be coordinated through the North Bend Police Department. North Bend Police should be advised as soon as possible when an evacuation is being considered. To facilitate an efficient evacuation, the following checklist has been developed.

___ Establish the trigger points for all three levels of evacuation.

___ Decide the geographic areas that will need to be evacuated.

___ Identify the approximate number of people that may be evacuated.

___ Identify the time frame within which the evacuation will need to take place.

The evacuation process involves directing evacuees to a central assembly location. From this location, transportation can be arranged to the evacuation center. The Incident Management Team is responsible for securing a site to serve as an assembly point. A recommended location is listed below.

WHEN THE EVACUATION ORDER IS ISSUED

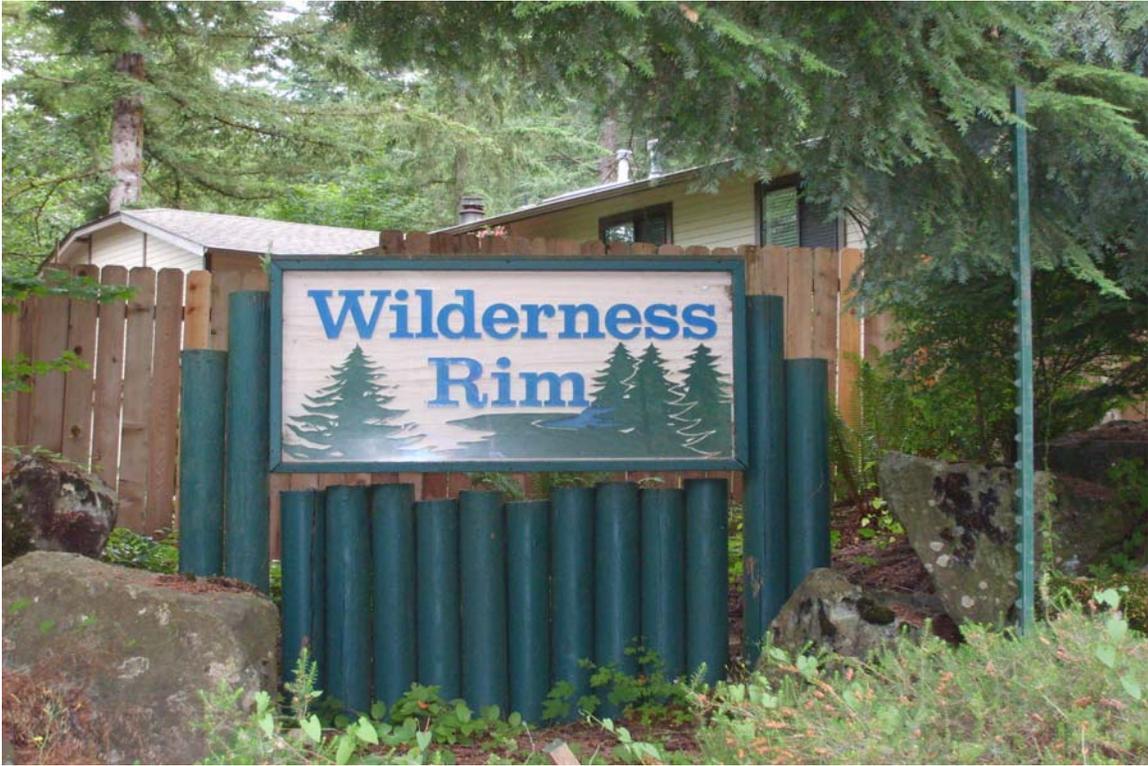
___ Contact the North Bend Police Department and request the services you need.

- They can provide transportation services among others.
- They will notify the King County Sheriffs office.

RECOMMENDED ASSEMBLY POINT

There is no recommended assembly point. Due to the proximity of Wilderness Rim to North Bend evacuated community members can be directed to the shelter.

Main entrance to Wilderness Rim



Common lack of defensibility in Wilderness Rim



Example of streets (Rattlesnake Ridge in background)



Fuel between structures



**Name of area or address receiving assessment
wildeerness Rim**

	Points	House or area	Notes
A. Subdivision Design			
1. Ingress and egress			
Two or more roads in/out	0	0	
One road in/out	7		
2. Road width			
Greater than 24 feet	0		
Between 20 and 24 feet	2	2	
Less than 20 feet wide	4		
3. All-season road condition			
Surfaced, grade < 5%	0	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	2	
< = 300ft, no turnaround	4		
> = 300ft, no turnaround	5		
5. Street signs			
Present (4 in. in size and reflectorized)	0	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	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	25	
C. Topography			
1. Slope			
Less than 9%	1	1	
Between 10-20%	4		
Between 21-30%	7		
Between 31-40%	8		
Greater than 41%	10		

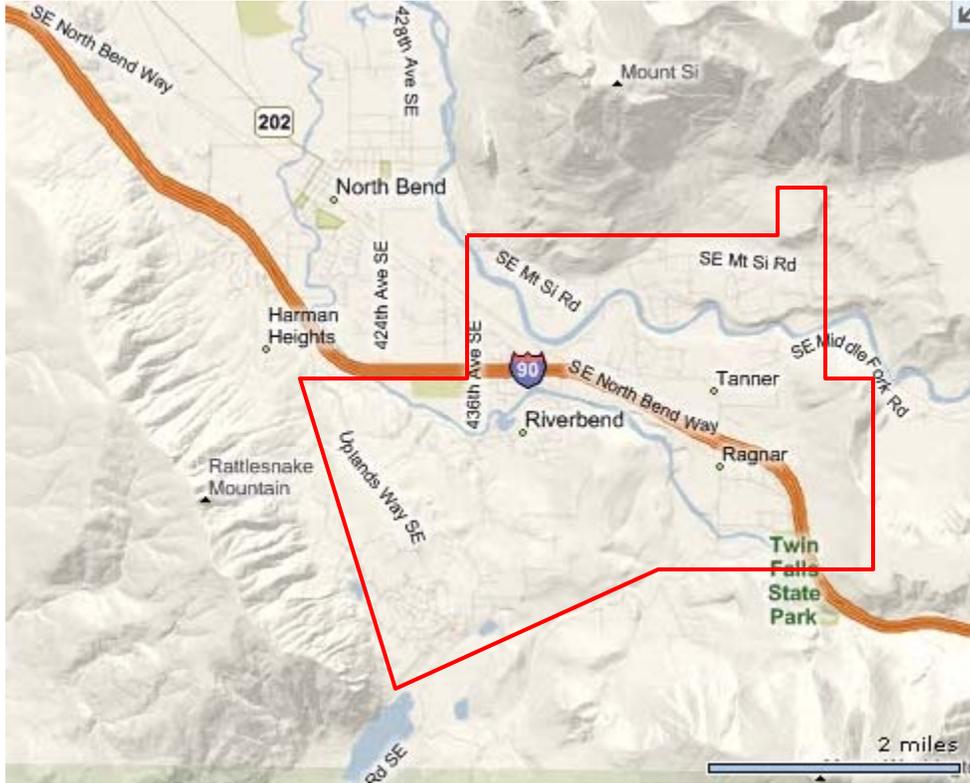
Totals for this page

50

	Points	House or area	Notes
D. Additional Rating Factors			
1. Topography that adversely affects wildland fire behavior	0 - 5	0	
2. Area with history of higher fire occurrence	0 - 5	0	
3. Areas of unusually severe fire weather and winds	0 - 5	3	
4. Separation of adjacent structures	0 - 5	5	
E. Roofing Materials			
1. Construction material			
Class A roof (metal, tile)	0		
Class B roof (composite)	3	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	10	
2. Setback from slopes > 30%			
More than 30 feet to slope	1		
Less than 30 feet to slope	5		
Not applicable	0	0	
G. Available Fire Protection			
1. Water source availability (on site)			
500 gpm pressurized hydrants < 1000ft apart	0	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	1	
Station greater than 5 miles	3		
3. Fixed fire protection			
Sprinkler system (NFPA 13, 13R, 13D)	0		
None	5	5	
H. Utilities (Gas and Electric)			
1. Placement			
All underground utilities	0		
One underground, one aboveground	3		
All aboveground	5	5	
Totals for this page		32	
I. Totals for Risk Assessments			
Totals for page 1 and 2		82	
1. Low Hazard: < 39 points			
2. Moderate Hazard: 40-69 points			
3. High Hazard: 70-112 points			
		82	
4. Extreme Hazard: 113 > points			

APPENDIX A

North Bend Protection Area



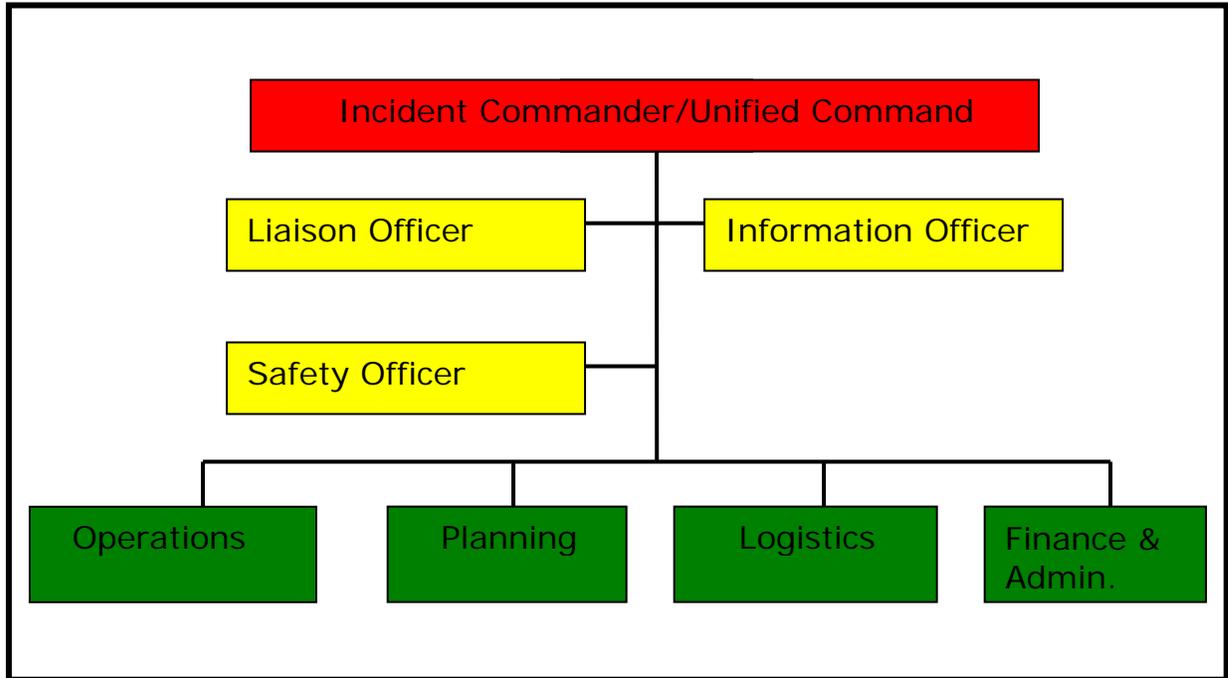
APPENDIX B

Structure Protection Checksheet - Single Property

Tactical Area		Protection #		S F
Address		Owner		
Legal	Sec	Twmsp	Range	
LAT. <i>N</i>		LONG <i>W</i>		
Structure Type 1 Story <input type="checkbox"/>		2 story <input type="checkbox"/>	Other	
Wood Frame <input type="checkbox"/>	A-Frame <input type="checkbox"/>	Log Home <input type="checkbox"/>	Outbuilding <input type="checkbox"/>	Safety Factor
RAPID ASSESSMENT <input type="checkbox"/> Driveway - Unsafe to use for ingress - egress during fire passage <input type="checkbox"/> Roof - Involved in fire upon arrival <input type="checkbox"/> Powerlines Blocking If yes to either question above, skip next section and check "non-defendable" below				
Check YES or NO for all areas [yes means it is a factor]				
DRIVEWAY -	Dead End or Longer than 200 Ft.		<input type="checkbox"/> YES <input type="checkbox"/> NO	
ROOF -	Flammable Debris on roof/gutters		<input type="checkbox"/> YES <input type="checkbox"/> NO	
ROOF -	Combustible [Asphalt Shingle or Wood Shake/Shingle]		<input type="checkbox"/> YES <input type="checkbox"/> NO	
TREES -	Overhanging Roof		<input type="checkbox"/> YES <input type="checkbox"/> NO	
TREES/BRUSH	Flammable Vegetation within 30 Ft. of Structure		<input type="checkbox"/> YES <input type="checkbox"/> NO	
VEHICLES	Parked outside within 30 Ft. of Structure		<input type="checkbox"/> YES <input type="checkbox"/> NO	
SLOPE	More than 20% anywhere within 30 Ft. of Structure		<input type="checkbox"/> YES <input type="checkbox"/> NO	
SLOPE	More than 40% anywhere within 30 Ft. of Structure		<input type="checkbox"/> YES <input type="checkbox"/> NO	
DECK / STILTS	Not enclosed / Open underneath / Intermediate Fuels		<input type="checkbox"/> YES <input type="checkbox"/> NO	
POWERLINE	Overhead within 30 Ft. of Structure		<input type="checkbox"/> YES <input type="checkbox"/> NO	
Defensible Evaluation Tally			Place tally # in upper right box	
0-2 YES above	<input type="checkbox"/>	DEFENDABLE=SF 1 (Green)		
3-5 YES above	<input type="checkbox"/>	NEEDS PREPARATION/Defend AGGRESSIVELY=SF 2(Yellow)		
6-7 YES above	<input type="checkbox"/>	NEEDS PREPARATION/Defend CAUTIOUSLY = SF 2 or 3		
8-10 YES above	<input type="checkbox"/>	NON-DEFENSIBLE=SF 3 (Red)		
map / photo		Priorities		
		Hazards:		
		Water Supply?		
		Tactics		
PREPARED BY [print] :			DATE:	

APPENDIX C

IMS Chart



Shown above is a sample Command and General Staff chart of a typical Incident Management Team.

APPENDIX D

FIRE

Eastside Fire and Rescue 425.392.3433
175 Newport Way N.W.
Issaquah, WA 98027

Washington DNR 360.825.1631
950 Farman St
Enumclaw, WA 98022
Dispatch 360.802.7024

U.S. Forest Service 425.888.1421
902 S.E. North Bend Way Bldg 1
North Bend, WA

LAW

North Bend Police Department 206.296.0612
(King County Police)
North Bend Substation
1550 Boalch Ave. N.W.
North Bend, WA 98045

Washington State Patrol 425.649.4370
2803 156th Ave. SE
Bellevue, WA 98007

King County Office of Emergency Mgmt. 206.296.3830

UTILITIES

Sallal Water Association 425.888.3650
P.O. Box 378
44017 S.E. Tanner Rd. Suite E
North Bend, WA 98045-0378

City of North Bend Public Works P.O. Box 896 1155 E. North Bend Way North Bend, WA 98045	425.888.0486
King County Dept of Transportation Road Services Division 201 S. Jackson St. Seattle, WA 98104	206.296.6590 1.800.527.6237
Washington State Dept of Transportation NW Region Office 15700 Dayton Ave. Shoreline, WA P.O. Box 330310 Seattle, WA 98133	206.440.4000
Puget Sound Energy P.O. Box 97034 Bellevue, Wa 98009	888.225.5773

OTHERS

Red Cross (King County Chapter) 1900 25 th Ave. South P.O. Box 3097 Seattle, WA 98114	206.323.2345
Metro Transit 201 S. Jackson St. Seattle, WA 98104	206.684.1162

APPENDIX E

THE FOLLOWING PAGES CAN BE USED AS A MASTER
COPIES FOR HANDOUTS IN AN EVACUATION AREA.

24 Hours to Success

Flying embers and creeping ground fires are significant contributors to the loss of a majority of homes to wildfire.

Listed below are some of the things you can do to increase the survivability of your home during the threat of a wildfire. These tasks can be accomplished in a relatively short time (24 hours or less) with very little, if any, cost to you.

1. Remove needles and leaves from your home's roof and rain gutters. These can ignite and quickly spread fire to your home.
2. Rake and remove combustible debris (grass, needles, and leaves) from around your home and out buildings. Dispose of this material at least 30 feet from any building.
3. Remove combustible materials from around wooden decks and walkways. If ignited, these materials can be blown under decks and walkways.
4. Move all fire wood at least 30 feet from your home. Wood piles can cause a very intense fire.
5. Remove wooden fences connected to your home. This will create a fire break if the fence catches fire.
6. Remove combustible outdoors furniture to a distance of at least 30 feet from your home.
7. Cover all vents (foundation and roof) with a fine mesh screen of 1/8th inch or less to prevent sparks or embers from being blown into your home.
8. Remove combustible material from around any propane or fuel tanks.

**In the event of an evacuation
Review the back of this sheet.**

In addition to the tasks listed on the other side, you should also try to do the following:

1. Place a sprinkler on your roof; do not turn it on until the fire's arrival is imminent. This will help conserve water for possible fire department use.
2. Connect hoses to all spigots. This will assist firefighters when they arrive.
3. Close all windows and shutters. Remove combustible curtains and window treatments.

These small tasks can greatly increase the chances of your home surviving when a wildfire threatens.

Please take the time to make a difference.