

Lake Retreat/Rock Creek Evacuation and Structure Protection Plan



2008

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Lake Retreat/Rock Creek

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PURPOSE

This plan has been prepared for the Lake Retreat/Rock Creek 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.

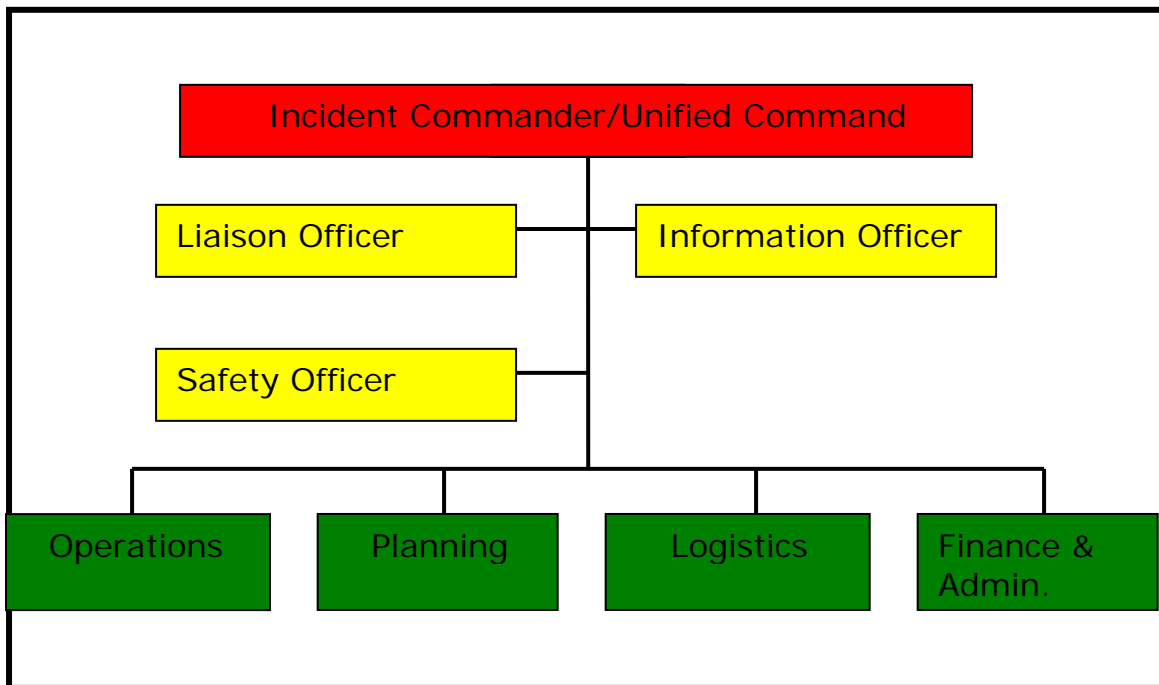
Timely implementation of the Structure Protection/Evacuation elements of this plan for Lake Retreat/Rock Creek and vicinity can save lives and property. A key element to the success of this plan is a strong command presence that incorporates the input of all of the principal emergency service providers. 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.

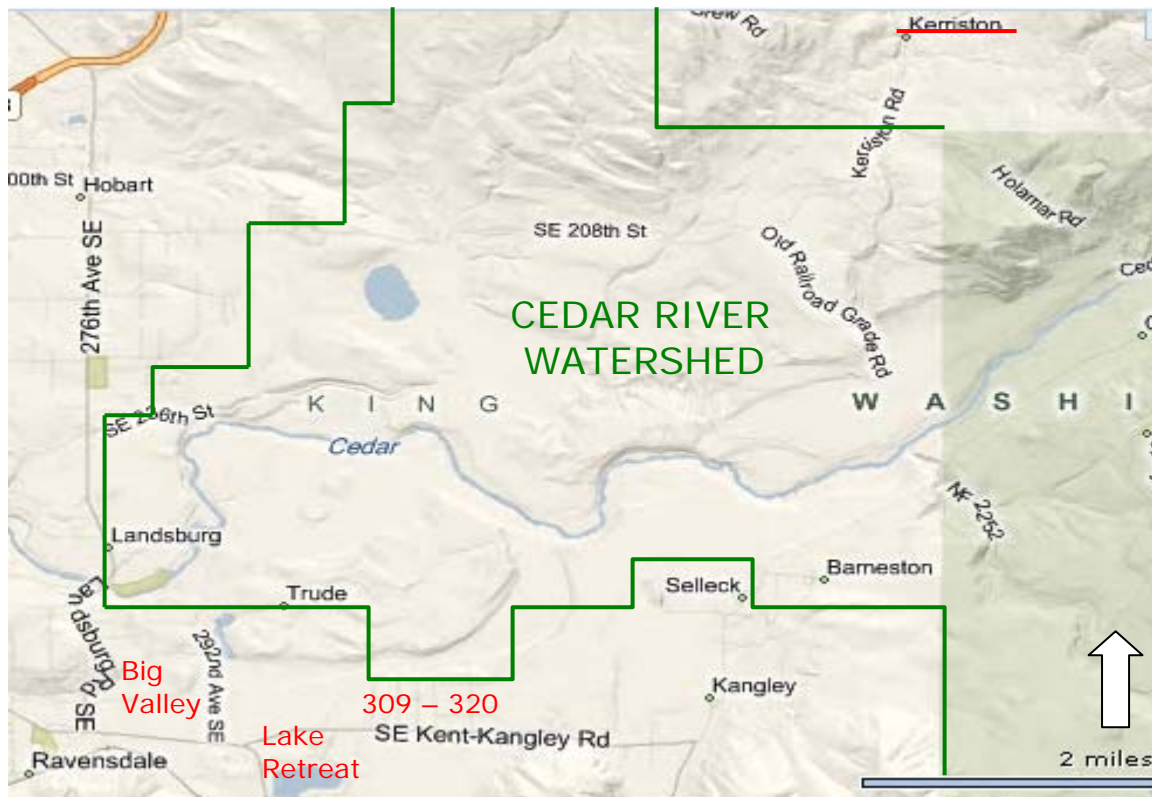
IMS Chart



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

Lake Retreat/Rock Creek Protection area

This evaluation unit is located in east central King County Washington. The area is divided east to west into two sections by the City of Seattle Cedar River Watershed. The north section of the unit contains Kerriston while the southern part contains Lake Retreat Big Valley and 309–320. The three above communities are easy to access via a well maintained county road system. Kerriston, on the other hand, is situated at the end of a poorly maintained gravel road some 4 miles long. As is common in forested developments the roads get narrower and rougher the further from the end of the pavement you travel.



Green line on map represents the approximate administrative boundary of the Cedar River Watershed.

FIRE POTENTIAL AND IMPACT REDUCTION

FUELS

The Lake Retreat/Rock Creek area is represented by two fuel type characteristics. The Cedar River Watershed is populated by mature stands of evergreens that have minimum amounts of ladder fuel concentrations (NFDR model H and NWCG type 8). Most of the watershed is fenced and general access is denied. This has limited the kind and amount of human interaction with the forest. The area outside the watershed has seen over harvesting, development, invasion by non-native species of brush, conversion of timber land to agriculture and neglect. The fuels are mostly brush and small timber stands (NFDR model L and NWCG type 6). The contrast in these fuel configurations has a direct bearing on the ability of each to sustain fire. Fuels in the watershed will predominately yield a shade dominated fire scenario. Outside the watershed the brush fuels and open canopy tree stands can be expected to support active fire conditions.

WEATHER

Lake Retreat/Rock Creek experiences typical inland coastal weather conditions. This area is prone to more moderate east wind events than many of the other foothill locations. Situated in the foothills, this area is subject to higher annual rainfall that occurs usually from November through May of each year. Summer temperatures can exceed 90 degrees which cures the flashy fuels quickly.

TOPOGRAPHY

The built environment portion of this review unit is generally without remarkable topographical features. The area around Kerriston is well within the foothills of the western Cascade Range. Topography here is punctuated by several hills and associated draws and drainages. With occasional openings

in the timber fuel continuity fire may make short aggressive runs up the open drainages.

IMPACT REDUCTION

The reduction of wildfire impact in this 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 King County Fire Districts 43 and 47, 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 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, the 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 PROPERTY 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 SEVERLY 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 Lake Retreat/Rock Creek and vicinity 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 defensible. 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 Lake Retreat/Rock Creek 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 Lake Retreat/Rock Creek 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 Lake Retreat/Rock Creek, there is no municipal type water system(s) with strategically placed fire hydrants. In areas without water a request for Structural Task Forces, with water tender support, should be made. 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 ignitability 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 ignitibility

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

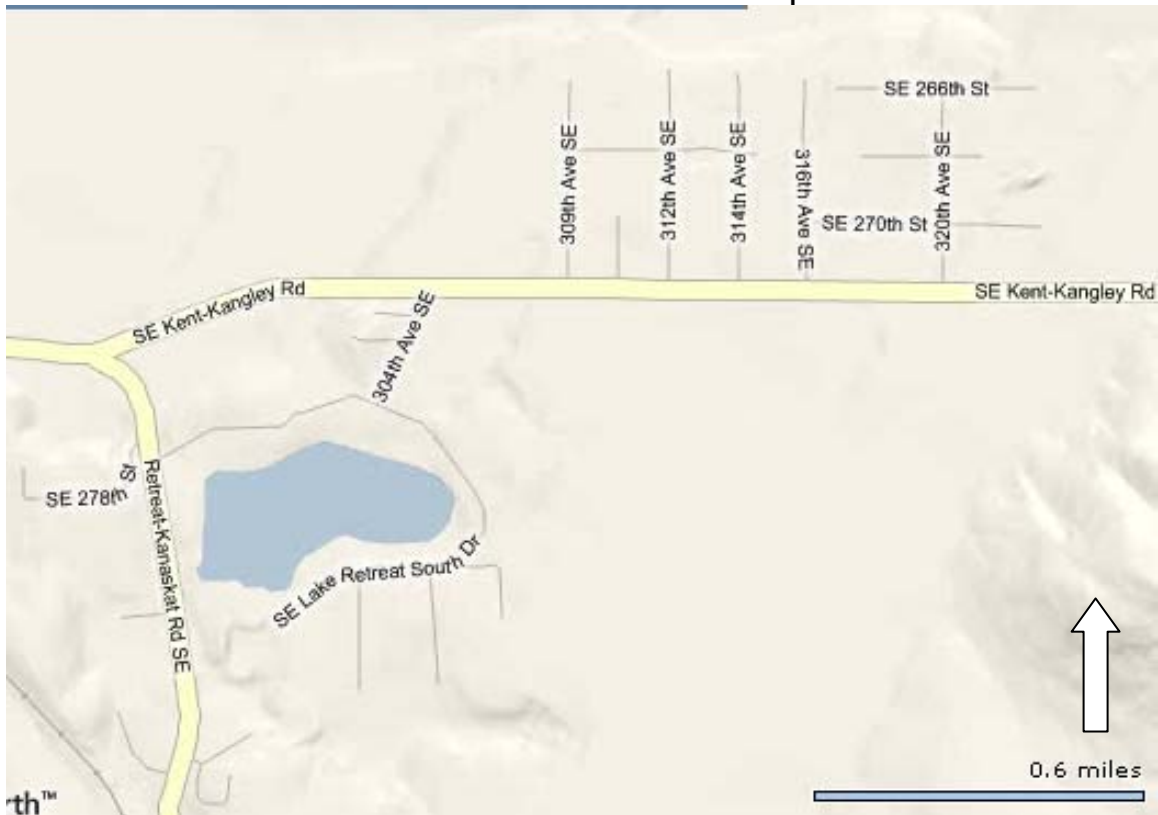
Identify and release or redeploy resources from areas no longer threatened by fire activity.

PART II

Planning area sub-sets

309th – 320th

309th – 320th street map



309th – 320th overhead



Structural Protection
309th – 320th
Sec 28 R7E T22N

GENERAL – The 309th – 320th community consists of five short streets that extend up to ¼ mile north of Kent Kangley Road just NE of Lake Retreat. This neighborhood is bounded on the east by an open pit gravel mine. To the north is the Cedar River Watershed. The south side is the Kent Kangley Road beyond which is open land and a power utility right of way. West of this development are several hundred acres of marketable timber. There are approximately 235 primary and secondary structures spaced out over about 250 acres. Lot sizes range from 1.25 to 2.5 acres each. There are two community water systems in this area that provide domestic service but no fire hydrants are available. There is a fire department connection at the well site located north of Kent Kangley Road on 320th Ave. SE.

PRIMARY PROTECTION – King County Fire District 47
34803 SE 268th St.
P.O. Box 206
Ravensdale, WA 98051

HAZARDS –

- All five access roads to this area are narrow and dead end
- LPG tanks are prevalent throughout the development

WATER SUPPLY – There are no hydrants in this area. There is a fire department connection at the well site located at 320th Ave. SE and SE 270th ST. There is a water system with hydrants approximately 2.5 miles west of this neighborhood. Lake Retreat is less than one air mile to the southwest and is adequate for aerial dipping.

TACTICS – The gravel pit located east of this development and north of Kent Kangley Road provides a physical fuel

break along the entire east side of this neighborhood. This feature extends from the Kent Kangley Road to the boundary of the Cedar River Watershed. The watershed property is fenced to restrict entry. There is a gate access road to the watershed property located in the northwest corner of the gravel pit. Heavy fire conditions from the north or west could be problematic in this community. Flying brands and direct flame impingement are both probabilities under these fire conditions. Given the density and proximity of structures in this neighborhood their protection may require significant personnel and equipment resources. Consideration must be given to the training of personnel assigned to this area. Some of the area resources may not be trained to operate in non-hydrated areas and may be better used in other settings. The fuel load to the south of this neighborhood and across Kent Kangley Road is comprised mostly of annual grasses and Scotch Broom. Fires in this area can be expected to travel rapidly and generate high outputs. As a general statement a fire from the north or west should be shade dominated due to the concentration of timber.

RESOURCE NEEDS – Two structural task forces and one additional type 2 helicopter should be ordered with the initial resource request.

PROBABILITY OF SUCCESS – Fair (65 – 75% or better)

COMMUNITY FIRE RISK ASSESSMENT - Using the NFPA 299 community wildfire hazard assessment methodology, 309th - 320th 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 309th - 320th. 309th - 320th has been rated as having a high (76 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 309th - 320th . There are several other general recommendations that may help reduce the potential of fire. The general recommendations can be found in Appendix E.

- This is a prime community for a Firewise Program.
- Work with the landowners around the entire community to establish and maintain a permanent fuel break. This is especially important to the west of the community.
- Work within the community to promote the ignition reduction potential of all structures.
- Recommend to all owners of vacant land that grass and/or brush should be cut short to reduce the spread of fire.
- Community meetings should be held to discuss the importance of community evacuation and conduct table top exercises.
- The addition of an emergency road at the north end of this development to connect all streets would improve egress.

309th - 320th 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 Maple Valley. Evacuations from 309th - 320th must be coordinated through the Maple Valley Police Department. Maple Valley 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 Maple Valley 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. AN ASSEMBLY POINT OR EVACUATION LOCATION WILL BE IDENTIFIED AT THE TIME OF A NEED.

Gravel mine east of 320th



Common street in the development



Fire department connection on 320th



Example of defensible space



Wildfire Hazard Severity Form Checklist NFPA 299

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

Name of area or address receiving assessment

309 - 320

	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		
Non-surfaced, grade < 5%	2	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	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

39

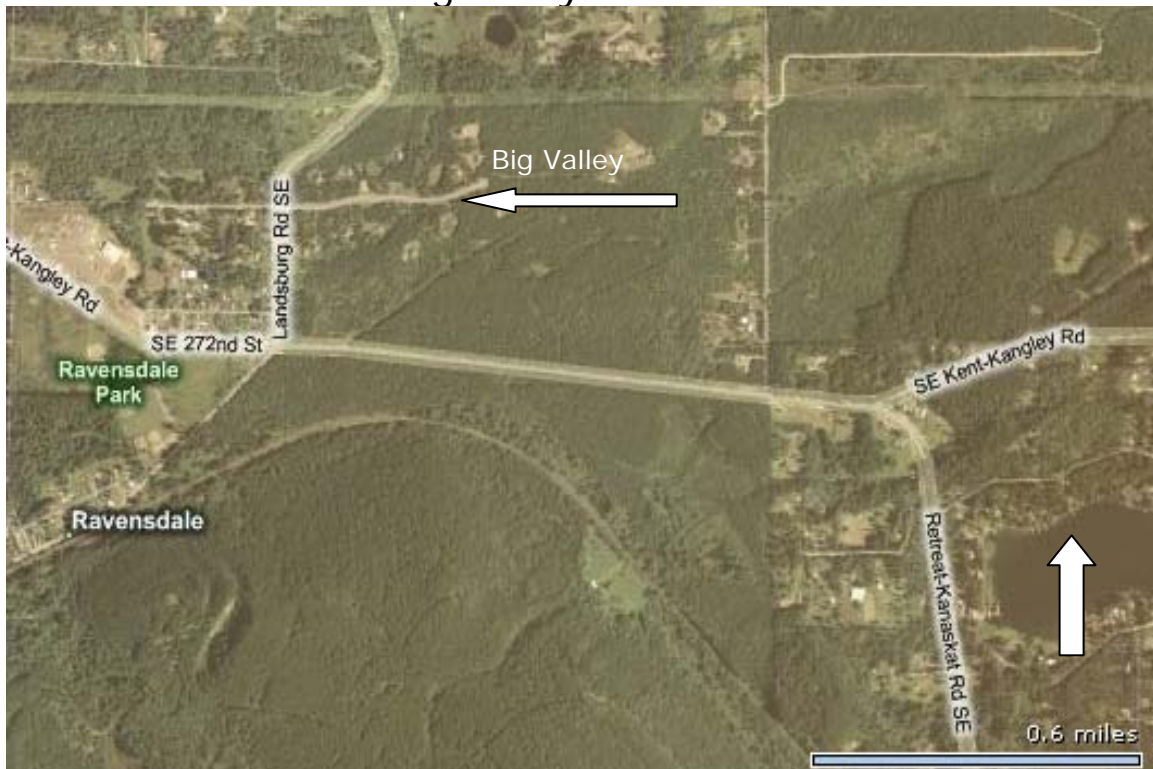
	Points	House or area	Notes
D. Additional Rating Factors			
1. Topography that adversely affects wildland fire behavior	0 - 5	0	
2. Area with history of higher fire occurrence	0 - 5	0	
3. Areas of unusually severe fire weather and winds	0 - 5	3	east wind events
4. Separation of adjacent structures	0 - 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		
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	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		37	
I. Totals for Risk Assessments			
Totals for page 1 and 2		76	

BIG VALLEY

Big Valley street



Big Valley overhead



STRUCTURAL PROTECTION
Big Valley
Sec 30 R7E T22N

GENERAL – Big Valley is a gated executive sub-division north of Ravensdale. Access is provided by a hard surface well maintained private road (S.E. 268th Street) that extends approximately 3/8 of a mile east from the Landsberg Road. S.E. 268th Street is wide enough for fire apparatus to pass with ease. There is a slight grade incline near midpoint. All driveways are well marked in a consistent manor with river rock bollards that have the individual addresses embossed. The homes in this development appear to be custom built and most are set-back 150 to 400 feet from the road. Driveways are all well maintained and many are hard surfaced. The wildland fuels surrounding this area are medium mixed conifer and hardwood with a moderate brush understory.

PRIMARY PROTECTION - Maple Valley Fire & Life Safety
23775 S.E. 264th St.
Maple Valley, WA 98038
425.432.0200

HAZARDS –

- This is a gated community, the local fire department has a key to the Knox box.
- Each of the primary homes in this area have LPG tanks. Some of the tanks are as large as 500 gallons.

WATER SUPPLY – There is a community water system in this development however there are no fire hydrants. The closest hydrant is at Landsburg Road S.E. and S.E. Kent Kangley Road approximately one half mile south of the entrance to the Big Valley development. Lake Retreat is one air mile to the south east and can be used for aerial dipping.

TACTICAL CONSIDERATIONS – Big Valley should not present significant tactical challenges. There are county roads to the east, west and the south that provide fuel breaks. The north is bounded by a utility easement where the fuels have been reduced to brush only. Some of the homes do have limited defensible space around them which may be improved by crews assigned to protect these structures.

RESOURCE NEEDS – One structural task force added to the initial resource order should be more than adequate to provide protection to the structures in Big Valley.

PROBABILITY OF SUCCESS – High (90% or better)

COMMUNITY FIRE RISK ASSESSMENT - Using the NFPA 299 community wildfire hazard assessment methodology, Big Valley 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 Big Valley. Big Valley has been rated as having a *moderate* (60 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 Big Valley. There are several other general recommendations that may help reduce the potential of fire. The general recommendations can be found in Appendix E.

- Community meetings should be held to discuss the importance of community evacuation and conduct table top exercises.
- Increase the defensible space around all structures to a minimum of 100'.

Big Valley 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 Maple Valley. Evacuations from Big Valley must be coordinated through the Maple Valley Police Department. Maple Valley 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 Maple Valley 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. AN ASSEMBLY POINT OR EVACUATION LOCATION WILL BE IDENTIFIED AT THE TIME OF A NEED.

S.E.268th Street (Big Valley)



Example of driveway



Fuels



Defensible space issue (uncommon)



Wildfire Hazard Severity Form Checklist NFPA 299

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

Name of area or address receiving assessment

Big Valley

	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	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		
> = 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	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	Moderate east winds
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	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		
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	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		30	
I. Totals for Risk Assessments			
Totals for page 1 and 2		60	

KERRISTON

Kerriston street map



Kerriston overhead



**Structural Protection
Kerriston
Sec 25 R7E T23N**

GENERAL – Kerriston is located 4 miles north east of the end of the pavement at the 30300 block of SE 208th St. Beyond here the road is narrow (16') and poorly maintained. The Kerriston area is home to about two dozen primary and secondary structures. The properties are large and the structures are well spaced. Access to this area is through the Cedar River Watershed.

PRIMARY PROTECTION – Washington State DNR
950 Farman St
Emunclaw, WA 98022

NOTE: Maple Valley Fire & Life Safety will provide limited initial response to this area to affect fire rescue.

HAZARDS –

- There is only one way in and out of this area and the access road is long, narrow and poorly maintained.
- Many of the structures are situated immediately under the tree canopy.
- Some structures are served by long driveways
- LPG tanks are common to most locations.
- Firefighting operations should not be conducted under the BPA high tension power lines west of Kerriston.

WATER SUPPLY – There is no community water system in this area. There is a possible draft site at the intersection of SE 208th St and 364th Ave. SE. There is also a 2½ inch fire department connection located at the address 37026 SE 191st St. Rattlesnake Lake is located approximately 4 air miles to the south southeast and provides a good location for aerial dipping. Walsh Lake is about the same distance to the southwest and is an alternate dipping site.

TACTICAL CONSIDERATIONS – Kerriston offers a particular tactical Challenge because of its' limited access and lack of rapid initial attack capability. Fire threatening this access should trigger an immediate evacuation. In the event of an evacuation deny access to everyone not essential to emergency operations. Consider working with Seattle City Light to open emergency evacuation/safety routes through the watershed. Structure protection in Kerriston will be dangerous and must be continually evaluated for risk vs. benefit. There is a 350' wide power right of way that runs north to south near the intersection of SE 208th and the Old Railroad Grade Road. This right of way is populated with heavy brush and small trees but could be used to advantage. Firefighting operations should not be conducted under these power lines. The use of aerial operations should be considered early to protect egress routes.

RESOURCE NEEDS – two Type 2 helicopters should be ordered in addition to other resources.

PROBABILITY OF SUCCESS – Fair (50% - 65%)

COMMUNITY FIRE RISK ASSESSMENT - Using the NFPA 299 community wildfire hazard assessment methodology, Kerriston 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 Kerriston. Kerriston has been rated as having a high (97 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 Kerriston. 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 landowners around the entire community to establish and maintain a permanent fuel break.
- Work within the community to promote the ignition reduction potential of all structures.
- Recommend to all owners of vacant land that grass and/or brush should be cut short to reduce the spread of fire.
- Community meetings should be held to develop a community evacuation plan and conduct table top exercises.
- Implement a Firewise Community plan.
- Establish a scheduled road maintenance program.

Kerriston 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 Maple Valley. Evacuations from Kerriston must be coordinated through the Maple Valley Police Department. Maple Valley 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 Maple Valley 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. AN ASSEMBLY POINT OR EVACUATION LOCATION WILL BE IDENTIFIED AT THE TIME OF A NEED.

Kerriston Road



Typical closed canopy fuels



Example of larger structure



Fire Department Connection 37026 S.E. 191St St.



Wildfire Hazard Severity Form Checklist NFPA 299

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

Name of area or address receiving assessment

Kerriston

	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		
Non-surfaced, grade < 5%	2	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		

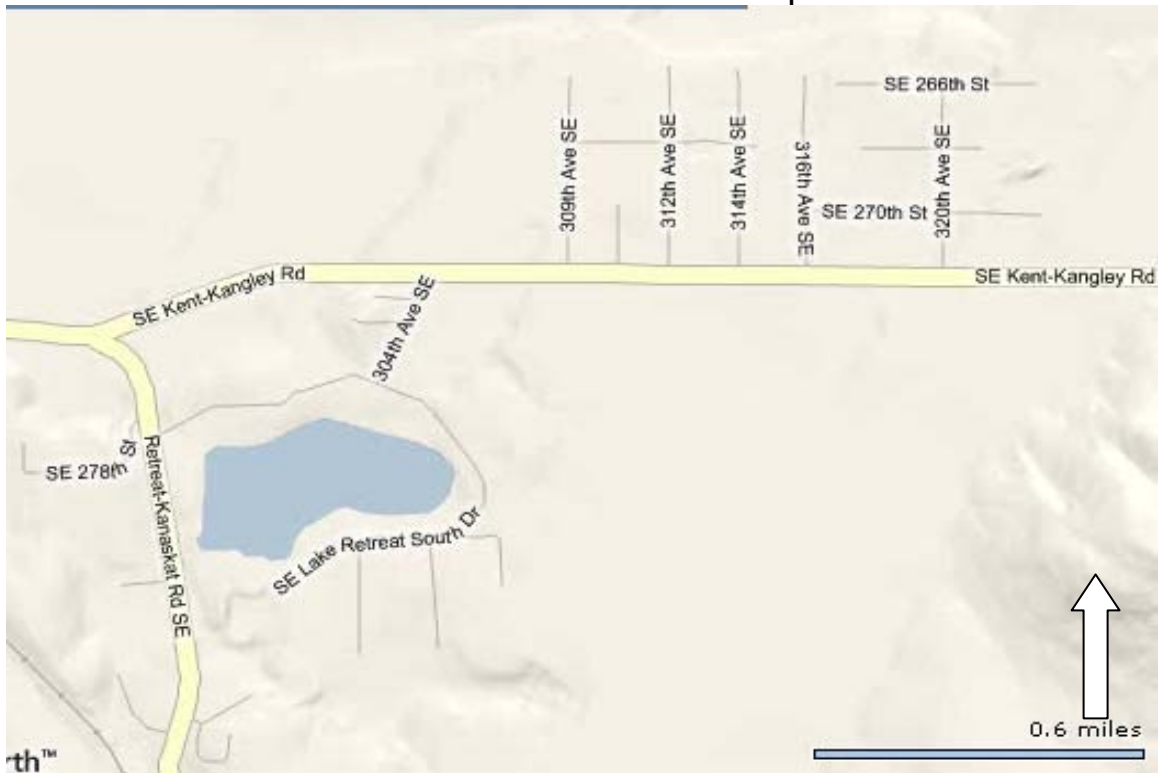
Totals for this page

49

	Points	House or area	Notes
D. Additional Rating Factors			
1. Topography that adversely affects wildland fire behavior	0 - 5	3	in the foothills
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	1	
Less than 30 feet to slope	5		
Not applicable	0		
G. Available Fire Protection			
1. Water source availability (on site)			
500 gpm pressurized hydrants < 1000ft apart	0		
250 gpm pressurized hydrants < 1000ft apart	1		
More than 250 gpm non-pressurized, 2 hours	3		
Less than 250 gpm non-pressurized, 2 hours	5		
No hydrants available	10	10	
2. Organized response resources			
Station within 5 miles of structure	1		
Station greater than 5 miles	3	10	not within fire district
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		48	
I. Totals for Risk Assessments			
Totals for page 1 and 2		97	

LAKE RETREAT

Lake Retreat street map



Lake Retreat overhead



**Structural Protection
Lake Retreat
Sec.32 R7E T22N**

GENERAL – Lake Retreat is located south east of the intersection of SE Kent-Kangley Road and Retreat-Kanaskat Road SE. This private lake is surrounded by single family residences some of which are lake front properties. Access to all of the structures around the lake is from one of two points. The first is in the 27900 block of Retreat Kanaskat Road SE. From this point Lake Retreat Drive extends for approximately 2.2 miles around the lake. 304th Ave. SE intersects Lake Retreat Drive at the north end of the lake and provides access to the Kent-Kangley Road. Beyond this intersection there is no other egress from the Lake Retreat Drive.

PRIMARY PROTECTION - Maple Valley Fire & Life Safety
23775 SE 264th ST.
Maple Valley, WA 98038
425.432.0200

HAZARDS –

- Lake Retreat Drive past the 30400 block is a dead end.
- As is common in most rural areas there are LPG tanks in this entire area.

WATER SUPPLY – With the exception of the Lake Retreat Conference Center there is no fire protection water system in the Lake Retreat area. The lake is adequate for aerial dipping. Water for firefighting and structural protection will need to be transported in.

TACTICAL CONSIDERATIONS – The area around Lake Retreat is populated by mature trees (see overhead map). Outside this area there are several physical barriers that can be used to the advantage of fire suppression crews. The north and west sides of this area are bounded by county

roads. The south side has a very distinct fuel difference in the lighter density of natural vegetation and the fact that the road curves to include this part of the area too. To the east of Lake Retreat is an open piece of land that is covered by brush and small trees. This area to the east is backed by a power line right of way that provides an additional fuel break.

RESOURCE NEEDS – Two structural protection task forces should be ordered during any sizable wildland fire in the Lake Retreat area.

PROBABILITY OF SUCCESS – High (90% or better)

COMMUNITY FIRE RISK ASSESSMENT - Using the NFPA 299 community wildfire hazard assessment methodology, Lake Retreat 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 Lake Retreat. Lake Retreat has been rated as having a moderate (64 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 Lake Retreat. There are several other general recommendations that may help reduce the potential of fire. The general recommendations can be found in Appendix E.

- Work within the community to promote the ignition reduction potential of all structures.
- Recommend to all owners of vacant land that grass and/or brush should be cut short to reduce the spread of fire.

- Work as a community to establish and maintain an access point to the lake that will allow fire apparatus to gain access for drafting.
- Community meetings should be held to discuss the importance of community evacuation and conduct table top exercises.

Lake Retreat 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 Enumclaw. Evacuations from Lake Retreat must be coordinated through the Enumclaw Police Department. Enumclaw 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 Enumclaw 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. AN ASSEMBLY POINT OR EVACUATION LOCATION WILL BE IDENTIFIED AT THE TIME OF A NEED.

Structures around Lake Retreat (typical)



Lake Retreat Road



Hydrant at Lake Retreat Camp



Lake Retreat Camp complex



Typical fuel east of lake Retreat



Wildfire Hazard Severity Form Checklist NFPA 299

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

Name of area or address receiving assessment

Lake Retreat

	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		
> = 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	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		

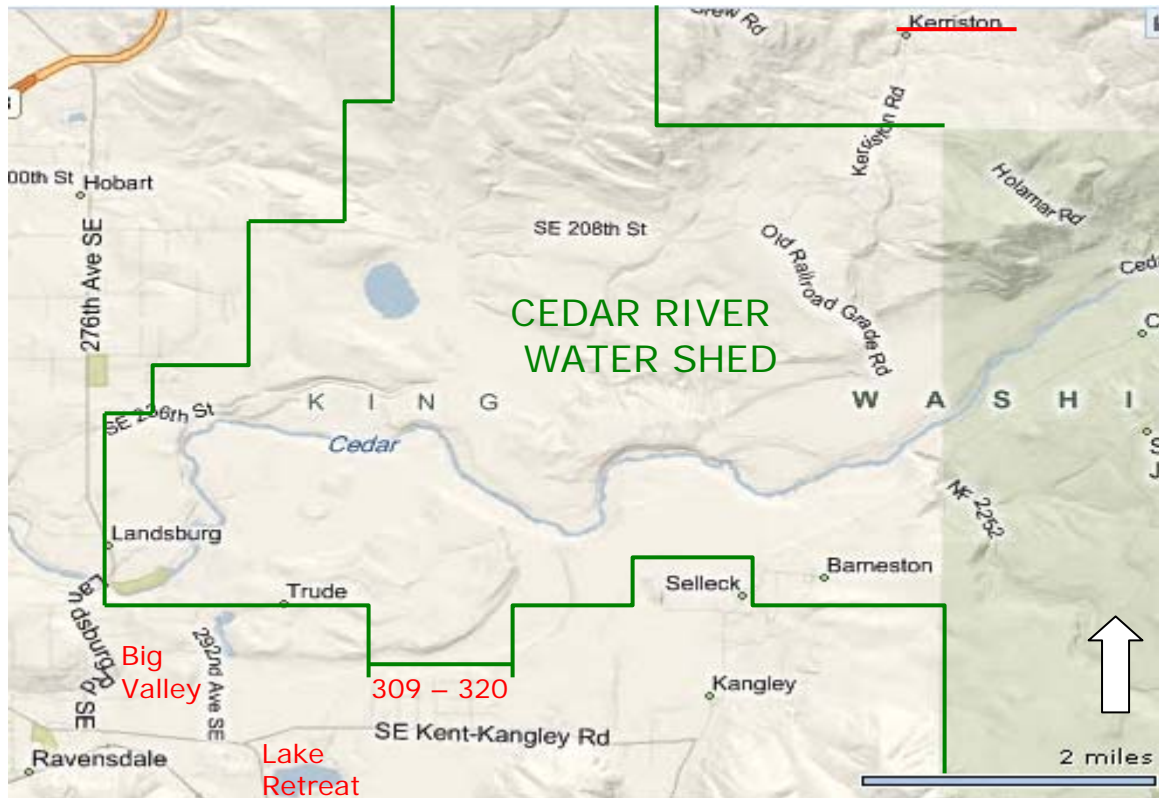
Totals for this page

32

	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	0	
4. Separation of adjacent structures	0 - 5	3	narrow lots around lake
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		
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	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		
Totals for this page		32	
I. Totals for Risk Assessments			
Totals for page 1 and 2		64	

APPENDIX A

Lake Retreat/Rock Creek Protection area map



Green line on map represents the approximate administrative boundary of the Cedar River Water Shed.

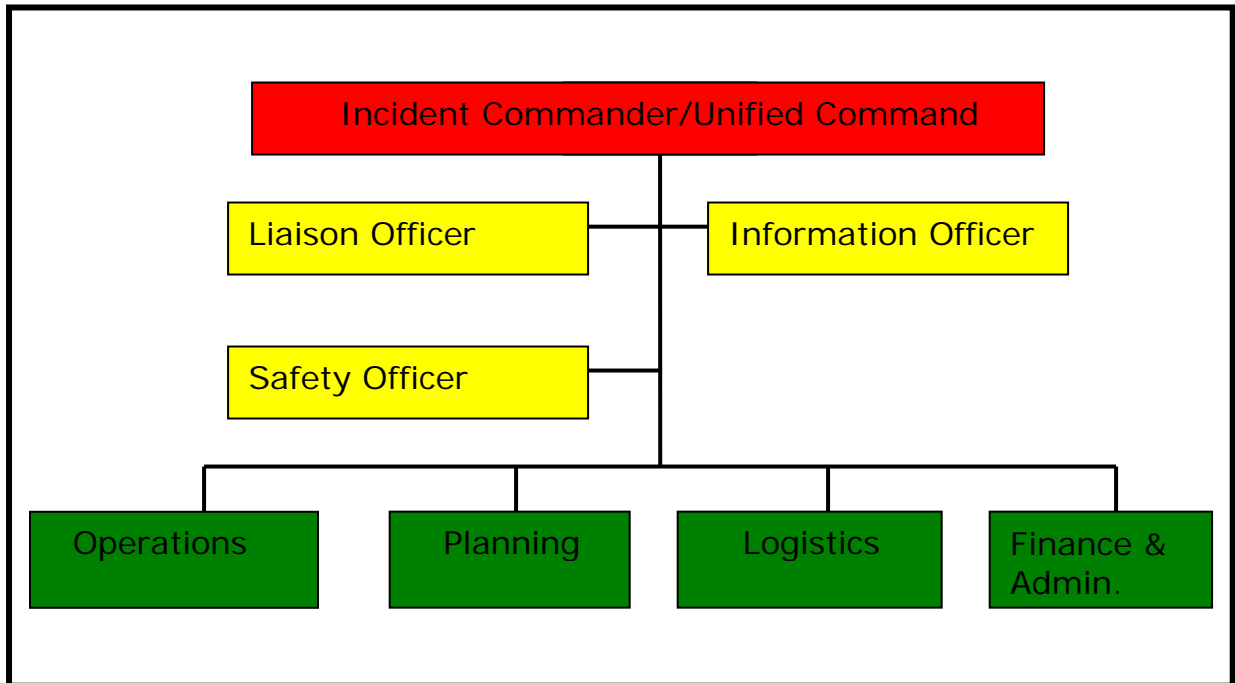
APPENDIX B

Structure Protection Checksheet - Single Property

Tactical Area				Protection #		S F
Address				Owner		
Legal	Sec	Twnsp	Range			
LAT. N			LONG W			
<i>Structure Type</i> 1 Story <input type="checkbox"/> 2 story <input type="checkbox"/> Other <input type="checkbox"/> Wood Frame <input type="checkbox"/> A-Frame <input type="checkbox"/> Log Home <input type="checkbox"/> Outbuilding <input type="checkbox"/>						
Safety Factor						
RAPID <input type="checkbox"/> Driveway - Unsafe to use for ingress - egress during fire passage ASSESSMENT <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	
<div style="display: flex; justify-content: space-between;"> <div> Defensible Evaluation Tally 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) </div> <div> Place tally # in upper right box </div> </div>						
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

Maple Valley Fire and Life Safety 23775 SE 264 th St. Maple Valley, WA 98038	425.432.0200
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King County Fire District 47 34803 SE 268 th St. P.O. Box 206 Ravensdale, WA 98051	360.886.1915
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Washington DNR 950 Farman St Enumclaw, WA 98022 Dispatch	360.825.1631 360.802.7024
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Valley (Fire) Communications 27519 108 th Ave. SE Kent, WA 98030	253.372.1300
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U.S. Forest Service Emunclaw Office 450 Roosevelt Ave. Enumclaw, WA 98022	360.825.6585
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LAW

Maple Valley Police 22035 Wax Rd. Ste 5 P.O. Box 320 Maple Valley, WA 98038 Dispatch	425.413.5158 206.296.3311
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King County Police Precinct 3 22300 SE 231 st Maple Valley, 98038	206.296.3883
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King County Office of Emergency Mgmt.	206.296.3830
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Washington State Patrol 2803 156 th Ave. SE Bellevue, WA 98007	425.649.4370
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UTILITIES

King County Dept of Transportation Road Services Division 201 S. Jackson St. Seattle, WA 98104	206.296.6590 1.800.527.6237
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Maple Valley Public Works P.O. Box 320 22035 Wax Rd SE Maple Valley WA, 98038	425.413.8800
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Washington State Dept of Transportation NW Region Office 15700 Dayton Ave. Shoreline, WA P.O. Box 330310 Seattle, WA 98133	206.440.4000
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Puget Sound Energy P.O. Box 97034 Bellevue, Wa 98009	888.225.5773
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OTHERS

Red Cross (King County Chapter) 1900 25 th Ave. South P.O. Box 3097 Seattle, WA 98114	206.323.2345
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Metro Transit 201 S. Jackson St. Seattle, WA 98104	206.684.1162
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Tahoma School District 409 27520 Maple Valley – Black Diamond Rd. Maple Valley, WA 98038	425.413.3400
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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.