

# **Tolt Triangle Fire Council Community Wildfire Protection Plan February 2005**

Prepared by  
Carnation-Duvall Citizens Corp Council  
with assistance from the  
Washington State Department of Natural Resources, King County Department of Natural Resources and  
Parks, Eastside Fire and Rescue District 10

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## **1.0 Motivation**

The community that makes up the Tolt Triangle Fire Council has great spirit, resolve and willingness to take responsibility for the community's ignition potential. This community is willing to take a proactive role in preventing fires.

### **1.1 Recent Fire History**

In 2003 this community became intimately aware of the danger of wild fires. There were three wildfire incidents that summer, the first and largest involved 30 acres on a hillside next to the city of Carnation. Luck and weather was with the neighbors as there was little wind and the fire was contained without much property damage. The two subsequent fires were smaller (one burned about 3 acres and another just a small area around the vehicle that was the cause of the fire) but every bit as worrisome. The situation became more complex following the winter of 2003 – 2004 when several winter storms, including a devastating ice storm, caused many trees to fall and tops to break, increasing the fuel load.

### **1.2 Past Fire History**

All the area defined by the Tolt Triangle Fire Council Community Wildfire Protection Plan has historically been managed as forestland. Evidence of historic fires can be observed on some of the large old stumps that possess fire scars. Wildfires in this area happened periodically, typically as a result of the logging practices (railroad), or as a result of catastrophic weather events (lightning). In fact, the Tolt Triangle Fire Council is considered to be in a convergence zone for lightning in East King County. This area is subject to a heavy concentration of lightning activity. A recent lightning storm (February 4th, 2005) passed through this area from Interstate - 90 to the Snohomish County line. In the past few years severe lightning storms have caused two fires in the Cascade foothills east of the Tolt Triangle Fire Council community on Hancock Timber Lands. Lightning has also struck overhead power lines causing electrical transformers to explode and burn during these events. Multiple fire starts are a very real possibility during these events - taxing firefighting resources.

### **1.3 Changing Landscape**

An argument could be made that logging related fires in this area are a thing of the past due to improved practices, careful regulations and changing land use. An argument could also be made that because of the changing nature of land ownership in this area and the greater density of people living here, the risk of fires is actually greater.

The wildland urban interface indicates a “mixed bag” of landowner stewardship goals and objectives. For example, some of the property owners are managing their properties as tree farms, some are managing their properties as natural preserves, some properties are being converted into hobby farms (animal evacuation needs to be a consideration), and some of the properties are being used as non-developed investments.

The character of the homes in the Tolt Triangle Fire Council area of concern are as varied as the land ownership objectives; there are homes valued at over one million dollars as well as simple trailer homes. Many of these properties are accessed from gravel roads that were not designed for easy access by emergency response vehicles and many of these roads have only one way in and one way out. Access to fire hydrants or any other water source has not been a consideration in community ‘design.’

### **1.4 Changing Climate**

The typical weather patterns experienced in the area of concern is relatively predictable. Rainfall in the fall, winter and spring seasons is plentiful (November – May). Summers are hot and dry. These types of weather patterns provide an interesting dynamic for vegetation growth and

subsequent fuel accumulation. During the wet seasons, particularly spring, “fuel” grows enthusiastically. During the dry season the “fine fuels” have plenty of opportunities to dry out.

## **2.0 Area of Concern**

The area defined by the Tolt Triangle Fire Council is essentially one large, contiguous forest of more than 5,800 acres. A wildfire anywhere in this area could easily endanger the entire area and any of the over 500 homes or structures in the area. Wildfire has the opportunity to be spread by ground or through the crowns of the trees, or both.

### **2.1 Tolt Triangle Fire Council and the Carnation-Duvall Citizens Corp Council**

The origin of the Tolt Triangle Fire Council resulted when several concerned residents of the Tolt River Highlands and Lake Joy neighborhoods attended a full day Firewise training session. On April 8, 2003, at the Nestlé Training Center in Carnation, Washington, the Washington Department of Natural Resources sponsored a Firewise community workshop. Among the 60+ people who attended the workshop, 7 were individuals who resided in the highlands area of Carnation-Duvall. One participant was the President of the Carnation-Duvall Citizens Corps Council. Recognizing the need for a Fire Corp, the president of the local Citizens Corp asked one of the Lake Joy participants to spearhead its Fire Corps division.

The residents then organized two additional Firewise presentations in both the Lake Joy and Tolt River Highlands neighborhoods where more homeowners learned how to protect their homes from wildfire. Realizing that both neighborhoods are connected by a contiguous forest, it was determined that a joint plan of action should be devised to reduce the risk of wildfires and improve evacuation routes in case of such an event.

Inspired by the Firewise presentations and with the collaboration government agencies, members of both neighborhoods have joined together to create this Community Wildfire Protection Plan. Community meetings involving a broad selection of representatives from Eastside Fire and Rescue (the local fire department), King County Department of Natural Resources and Parks, Washington Department of Natural Resources, U.S. Forest Service, City of Seattle, the Carnation-Duvall Citizen Corps Council, and property owners have been held with a focus on the feasibility of creating such a plan. (Appendix 1 provides information about collaborating organizations)

## **2.2 Neighborhood Descriptions**

In the 5,800+ acres that are within the Tolt Triangle Fire Council boundaries, there are over 900 different parcels and more than 500 homes. The majority of these parcels are organized in four different established and establishing neighborhoods. Each neighborhood has a little different flavor and history, but when it comes to wildfire risk the neighborhoods realize we are all in this together. What follows is a brief description of the neighborhoods.

### **2.2.1 Tolt River Highlands**

In 1996, the Weyerhaeuser Real Estate Corporation began selling 20 acre parcels of their holdings above the Tolt River to private individuals for home sites. The area was previously managed as a Douglas Fir timber plantation, with the last harvest and replanting occurring over 30 years ago. In the intervening years, minimal forest management has taken place. In fact, there were no tree thinning operations as would normally occur if the forest were managed for timber production. The result is a dense stand of somewhat unhealthy trees.

This development consists of 120 20+ acre lots, around 2,400 acres of total area. It is called the Tolt River Highlands. The Tolt River Highlands abuts the community of Lake Joy, the city of Carnation, the Tolt Watershed, Moss Lake County Park, and the Tolt

River amongst other areas. Since 1996 property owners have been developing their land and moving into the area.

Tolt River Highlands has a FireWise Community Assessment high hazard score of 76 based on data collected from a tour of the area by Charley Burns, Fuels Reduction Specialist, Washington State Department of Natural Resources, during the fall of 2004. The primary contributors to this score which require mitigation are: single-lane or dead-end access roads; ice damage; heavy vegetation; lack of fuel breaks.

**2.2.2 Lake Joy**

The Lake Joy community has existed for over 75 years. It was originally a lakeside subdivision of the Snoqualmie Tree Farm (originally owned and managed by Weyerhaeuser). Originally, the subdivision consisted of seasonal-use recreation cabins. Over time, the Lake Joy community has evolved to predominantly year-round residential use. In addition to all of the properties adjacent to the lake, the Lake Joy community includes many properties accessed off the Lake Joy Road. These vary from a dense subdivision with homes on ½ acre lots to small farms with 1 – 10 (or more) acres.

Lake Joy has a FireWise Community Assessment high hazard score of 95 based on data collected from a tour of the area by Charley Burns, Fuels Reduction Specialist, Washington State Department of Natural Resources, during the fall of 2004. The primary contributors to this score which require mitigation are: flammable structural components; lack of defensible space; one-way ingress and egress; lack of fuel breaks.

**2.2.3 North Lake Joy Estates**

North Lake Joy Estates is the result of the subdivision of a Douglas Fir plantation and associated wetlands into 17, 20-acre parcels. The resulting development is similar in nature to the Tolt River Highlands.

North Lake Joy Estates has a high hazard score of 88 based on data collected from a tour of the by Charley Burns, Fuels Reduction Specialist, Washington State Department of Natural Resources, during the fall of 2004. The primary contributors to this score which require mitigation are: one way ingress and egress; lack of fuel breaks; heavy vegetation; ice damage.

**2.2.4 The Reserve at Lake Joy**

The Reserve at Lake Joy is a community of 20 homes in rural eastern King County just northwest of Lake Joy. The Reserve is situated among 100 acres with designated wetlands scattered throughout providing privacy for residents, homes and for our area wildlife. The homes sites range from two to five acres. All the homes were created with defensible space landscaping incorporated into the covenants and restrictions.

Due to existing defensible space the Reserve at Lake Joy scores a moderate hazard rating of 64 based on data collected from a tour of the area by Charley Burns, Fuels Reduction Specialist, Washington State Department of Natural Resources, during the fall of 2004. The access road is one-way with closed canopy and heavy vegetation in many areas. Thinning and fuels reduction will provide safer escape routes and contribute to a shaded fuel break.

Table 1: Summary of Tolt Triangle Fire Council Neighborhoods

Neighborhood	Access	Hydrant availability	Water access
Tolt River Highlands	Gravel Roads	None	private wells

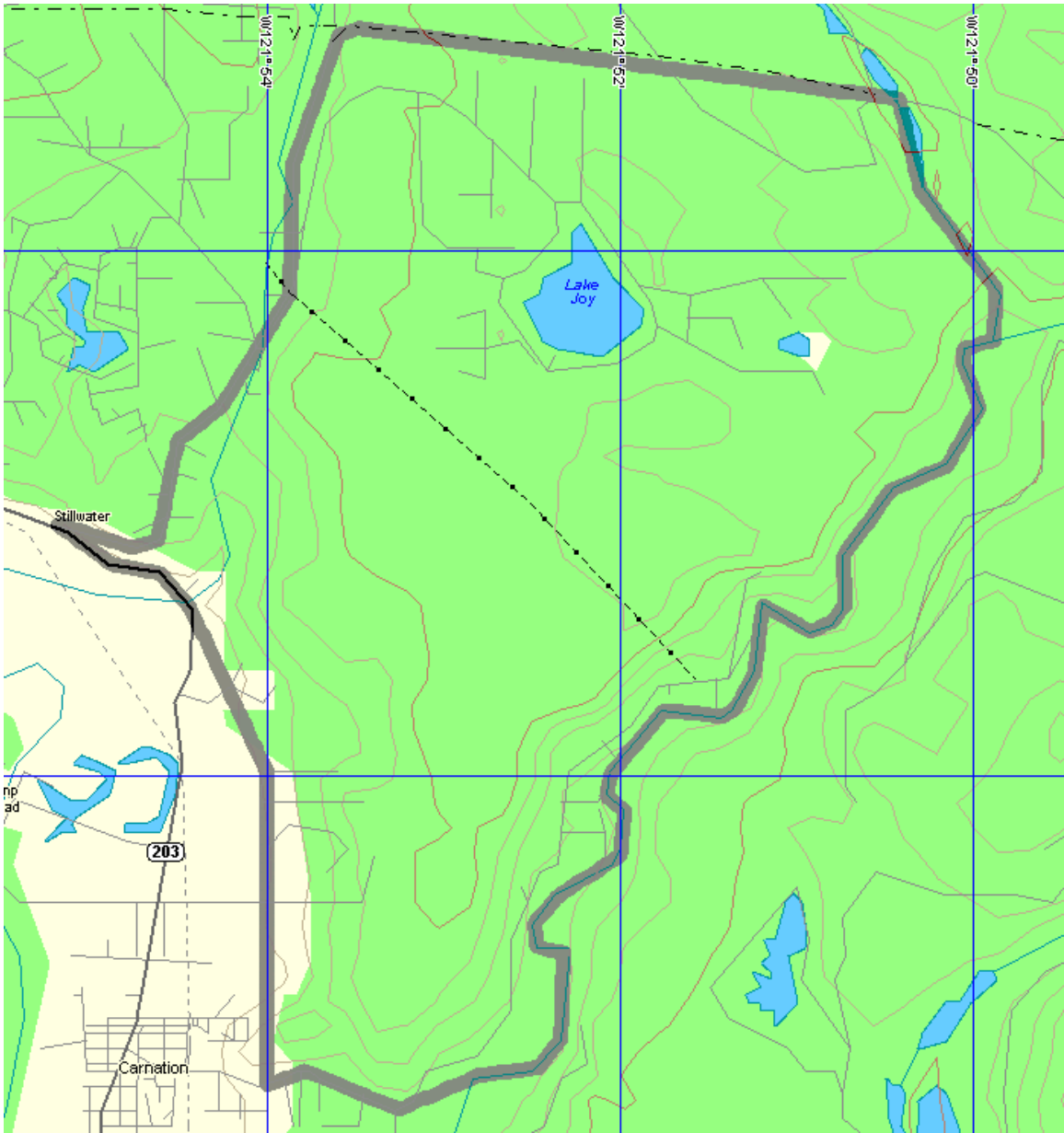
Lake Joy perimeter	Asphalt Roads	Yes	water district
Lake Joy extended	Gravel Roads	Some	water district
North Lake Joy Estates	Gravel Roads	Yes	water district
The Reserve at Lake Joy	Asphalt Roads	Yes	water district

**2.3 Surrounding Environment and Large Tree Farm Neighbors**

The northeast section abuts the Tolt Watershed and the Markworth State Forest. The Tolt Watershed is managed by the City of Seattle and provides Seattle with about 30 percent of its fresh water supply (Appendix 3 provides more information about the Tolt Watershed). The Markworth State Forest is managed by the Washington State Department of Natural Resources as a working forest. The east section abuts the Snoqualmie Tree Farm, which is managed by Hancock Forest Management as an industrial forest. North of this area is more wildland urban interface (long term plans are to grow this community to include these areas once TTFC is established). To the west is agricultural and wetland private and public properties along the Snoqualmie River. The southern boundary is the city of Carnation, Washington.

**2.4 Tolt Triangle Fire Council Defined Geographically**

Using topographic maps and aerial photos, the group defined an area that would be most affected by wild fire. This area is a roughly triangular shape that is bounded by the Tolt River on the east, the Tolt Pipeline road on the north, and Kelly Road and a creek that follows the base of the hill along Highway 203 on the west. These boundaries meet along the northeastern boundary of the city limits of Carnation. This area includes the communities of Tolt River Highlands, Lake Joy, North Lake Joy Estates, The Reserve at Lake Joy, Moss Lake County Park, and other developments. See the following map for details.



Map 1: Topographic map of Tolt Triangle Fire Council community

This area was chosen for its geographical features. Natural or manmade firebreaks, such as the river and various roads, determined the boundaries. The following three-dimensional representation illustrates those geographical features.



Map 2: Three-Dimensional Topographic map of Tolt Triangle Fire Council community  
*Please note that the vertical features have been exaggerated 8x greater than the horizontal scale to make them more viewable.*

### **3.0 FireWise Community Assessment**

The Tolt Triangle Fire Council initiated a FireWise Community Assessment through the Washington State Department of Natural Resources (DNR). On September 9, 2004, Charley Burns, Wildlands Fuels Reduction Specialist, selected a sample of homes located in four of the neighborhoods and performed a community Firewise assessment.

Three of the neighborhoods in Tolt Triangle Fire Council are in a High Hazard area. The neighborhood with the densest population, Lake Joy, received the highest score. The main problems were abundance of fuels and limited emergency access. A common observation in the neighborhoods assessed was inadequate defensible space around homes and other structures. Table 2 provides a summary of the assessment results. Appendix 6 provides an example of an evaluation form utilized in the FireWise property assessment.

Table 2. FireWise Neighborhood Assessment Results

Community	Score	Notes
Lake Joy	95	Moss Lake County Park, fuel break, access road only escape route
North Lake Joy Estates	88	Access to Tolt Pipeline Road Steep climb up Stillwater Hill road (paved)
Tolt River Highlands	76	Ice damage, lots of vegetation, most home sites have single access road
The Reserve at Lake Joy	64	

<39 Low Hazard

40 – 69 Moderate Hazard

70 – 112 High Hazard

>113 Extreme Hazard

#### 4.0 Collaboration

The Tolt Triangle Fire Council is collaborating with state, county, city and local fire districts. Table 3 provides general information about the collaborators. Appendix 1 provides additional information about this group.

Table 3: Tolt Triangle Fire Council list of Collaborators

Collaborator	Type
Eastside Fire and Rescue	Emergency Response
King County	County Government
Washington State Department of Natural Resources	State Government
City of Seattle, Seattle Public Utilities	City Government
City of Carnation	City Government
King County Duvall Fire District 45	Emergency Response
US Forest Service	Federal Government
Hancock Forest Management	Private Industry

#### 5.0 Community Wildfire Planning Committees

Building on the spirit and enthusiasm to be proactive regarding fire prevention in the community, areas of Firewise focus were identified and relevant committees were formed. The purposes of the committees are threefold:

1. To provide an opportunity for neighborhood members to share their expertise or interest relative to fire prevention;
2. To provide input to the Tolt Triangle Fire Council Community Wildfire Protection Plan;
3. To provide opportunities to spread the word about Firewise through neighborhood networking.

Three primary committees were formed with the task of drafting an achievable action plan relative to their committee area of focus. What follows are the action plans created by the following committees: Emergency Response/Evacuation Committee, Education and Public Relations Committee; Fuel Reduction Committee.

## **5.1 Emergency Response/Evacuation Plan**

The Emergency Response committee is working with the local fire department (Eastside Fire and Rescue) to determine what property owners should do during various emergencies. Once a plan is created, they will communicate this information to property owners.

- 1) Define Neighborhood Area Boundaries
  - a) Identify property owners in each Neighborhood Area
- 2) Define Emergency Response Plan
  - a) Collect contact information for people in each Neighborhood Area
  - b) Identify Area Leaders / Block Captains for each Area who will be responsible for contacting people in their Area
  - c) Establish Emergency Response Plan or, minimally, a phone tree plan for each area
    - i) Communicate Area Plan to appropriate property owners
    - ii) Develop back-up plan for communication if telephones are down
    - iii) Prepare people for evacuation in steps per statewide guidelines
    - iv) Define appropriate contacts for communication with professional emergency responders
- 3) Define Evacuation Plan
  - a) Identify access roads in each Neighborhood Area
    - i) Specify type of road, width
    - ii) Identify potential hazards in specific disaster scenarios
  - b) Identify potential alternates for emergency access/escape or firebreaks
    - i) Existing trails, old roads or clearings
    - ii) "Opportunity points" where minimal clearance with bulldozer or backhoe could create quick access
  - c) Identify short-term Safe Areas to harbor people and animals in case evacuation is not possible
    - i) Identify minimal support systems (water, sanitation, and so on) for Safe Areas for a 2-day minimum
  - d) Define Evacuation Plan for each Neighborhood area
    - i) Contacts with emergency agencies to communicate information and to establish evacuation guidelines
    - ii) Notification to individual Areas
    - iii) Temporary Rendezvous Location outside of threatened area
    - iv) System to assure everyone is "checked out"
    - v) Logistics to evacuate people and animals
    - vi) Logistics to notify "all clear" and to facilitate re-entry into homes
    - vii) Consider an Evacuation Drill, at least for one or two Areas in the TTFC: experiences to be conveyed to everyone to minimize problem areas in case of a real disaster
    - viii) Communicate outline of Evacuation Plan to all residents so everyone knows what to expect

### ***Emergency Access***

Encourage property owners to attach a Knox box to any locked gate (a Knox box is a special box that is only accessible to firefighters and emergency personnel. Gate keys and combinations may be securely left in the box to allow access through gates for emergency personnel). See Appendix 2 for more information about obtaining a Knox box

## **5.2 Education and Public Relations Plan**

Educate property owners about the various things they can do to reduce the risk of wildfires.

To reach the greatest possible number of people, a variety of educational methods will be used. This will include presentations by recognized authorities, written material targeted to the property owners, and resource information that will be readily available.

### Presentations

The education committee is attempting to determine the appropriate number of meetings/presentations for the property owners without overloading the property owners or duplicating existing efforts. A lot of information is currently available from various county, state and Firewise sources. However, there seems to be a need for site-specific information.

The Education committee is suggesting three presentations for 2005. These would consist of the following:

- Winter - Fuel reduction, thinning and pruning, and the related permit process
- Spring - Firewise/Defensible space (Lake Joy with examples in that community)
- Fall – burning permits or related topic

### Mailers

To provide homeowners with written material that could also serve as reference, the Education committee suggests the creation of a “Welcome basket” consisting of information gleaned from county, state and federal sources (Firewise and other organizations). This package would be sent to all current homeowners and to new property owners as property ownership changes.

In addition, the education committee suggests that there are two annual mailings. For 2005 those mailings would consist of the following.

- Spring – Emergency Response, Fire Hazard
- Fall - burn permit information; may be annual mailer

### Web site

To provide a reference resource, the Education committee suggests the creation of a web site. The web content would echo much of the content that was in the presentations and the mailings, as well as links to other important information.

The current web site is located at <http://www.ToltFirewise.org>.

### Public Relations

To try and reach as many people as possible, this committee would like to recommend some additional educational/public relations activities. These may consist of the following.

- Articles in neighborhood association newsletter and local newspapers
- Information booth at local events (Farmer’s Market, parades, etc.)

### Additional activities/ideas:

Identify funding for marketing materials.

Create reminder give-aways, items to distribute to property owners with tips, hints and other Firewise-related information.

Create Firewise “arboretum”, a sample of defensible landscaping plants at a local county park (Moss Lake) or entrance to one or more of the established neighborhoods.

## **5.3 Fuel Reduction Identification Priorities and Recommendations Plan**

One of the more troubling issues in the area is the abundant amount of fuel for a potential wildfire. The existing forest stands tend to be very dense and there is a lot of downed slash and brush due to the ice storm in 2004. The Fuel Reduction committee has come up with several suggestions to reduce the fuel.

### 1. Reduce fuels and improve visibility along main access roads

The roads in the area tend to be narrow and twisting with limited visibility. There are numerous sections of roads where the trees are dense enough to form a closed canopy. While this may look picturesque, the situation reduces the road's ability to perform as a firebreak. To improve this situation, we suggest the following.

- Continue to apply for grants similar to WUI (applied for in 2004).
- Organize community clearing projects.
- Encourage property owners to clear, thin and chip along roads and drives

### 2. Expand fuel reduction program along secondary roads, drives, and other access points

In addition to improving access and visibility on the main roads, we want to identify additional sources of funding to expand on brush clearing along all of the roads in the area that need this treatment since the nature of the contiguous forested area dictates that all roads in the TTFC area be included in a fuel reduction program.

### 3. Increase number of homes and structures with appropriate defensible space

One of the best ways to minimize damage to homes is to reduce the fuel around the house and create a defensible space.

- Refer to education committee for Firewise and other information
- Get sample homes around Lake Joy and other neighborhoods

### 4. Expand defensible space concept by “feathering” tree and plant density

- Educate homeowners how to expand defensible space.
- Examples of good landscaping practices
- Washington DNR/State Farm Insurance video

### 5. Maintain existing natural and man-made fuel breaks (such as the power line right-of-way)

With a large expanse of interconnected properties, existing fuel breaks may be critical in controlling any future wildfires. These breaks, such as the power line right-of-way, also allow access to the interior of the properties. We want to encourage property owners to maintain these existing fuel breaks. To accomplish this we plan on the following.

- Contact Bonneville Power Authority (power line right-of-way) and obtain their maintenance plans.
- Work with Eastside Fire and Rescue or similar group to apply for grant to purchase chipper. Make chipper available to property owners on certain days.
- Map and maintain the existing hiking and horse trails. Small trails can provide access to fires for firefighting crews. We can then provide this map to fire officials.

### 6. Encourage good forest management practices to thin and prune trees

- Work in conjunction with the education committee
- Provide harvest/thinning permit information to property owners
- Locate list of consultants to assist property owners (see Appendix 5)
- Encourage property owners along main road to thin appropriately to serve as examples for all property owners
- Work with abutting property owners to create and maintain fuel breaks.

## **6.0 Conclusion**

The area defined by the Tolt Triangle Fire Council is composed of a group of enthusiastic and concerned neighbors representing diverse neighborhoods who collectively form a community. There exist real opportunities to do great work relative to wildfire education and prevention in this community. Organizing, coordinating and drafting the Tolt Triangle Fire Council Community Wildfire Protection Plan is a unified effort. The Tolt Triangle Fire Council participants are responsible for drafting this plan and look towards our government collaborators for support in our efforts to educate our neighbors, reduce hazardous fuels and conditions near or enroute to our homes (or our neighbors' homes) and be responsible stewards of our dynamic ecosystem.

## **Appendix 1 Participating Organizations**

The following is some brief information about the various groups and organizations supporting the efforts of the Tolt Triangle Fire Council:

### **Neighborhoods and Related Associations**

Tolt River Highlands, including TRH Div 1, Div 2, Div 3, Div 7

The Tolt River Highlands neighborhood has a main property owners' association that consists of all property owners. This association is responsible for the shared main road and meets annually.

[www.toltriverhighlands.org](http://www.toltriverhighlands.org)

The side roads in this neighborhood are maintained by separate property owners associations.

Lake Joy

The Lake Joy neighborhood has a voluntary Lake Joy Community Club that is open for membership to all neighbors who access their properties off East Lake Joy Drive NE, and West Lake Joy Drive NE.

The primary focus of this community club is to address issues that impact the neighborhood. The Lake Joy Community Club is the oldest neighborhood organization in the Tolt Triangle Fire Council Community. [www.lakejoycommunity.com](http://www.lakejoycommunity.com)

North Lake Joy Estates

The North Lake Joy Estates neighborhood has a homeowners' association whose primary focus is road surface maintenance.

The Reserve at Lake Joy

The Reserve at Lake Joy neighborhood has a homeowners' association whose primary focus is respect of the covenants and restrictions that apply to the property owners in this development.

### **Non-government Organizations**

Carnation-Duvall Citizens Corps Council

In response to the national request for Americans to work together to strengthen our communities, the cities of Carnation and Duvall have established a nationally-registered Citizen Corps Council to assist in the coordination and dissemination of local volunteer emergency response opportunities and information in the Carnation-Duvall area. During President Bush's State of the Union address on January 29, 2002, he requested that all citizens devote time in volunteer service to their own communities by "getting organized to offer citizens opportunities to help make their communities safer, stronger, and better prepared for preventing and handling threats of terrorism, crime, and other emergencies and disasters." The Carnation-Duvall area offers a broad range of opportunities for volunteer service including over 70 CERT trained volunteers. The goals of the Carnation-Duvall Citizen Corps Council are to stimulate interest at the grass roots level, to provide accurate information of available resources, to coordinate interests in order to avoid duplication, and to create funding, when required, for increased program growth. [www.cdcncl.org/](http://www.cdcncl.org/)

Eastside Fire and Rescue

In the mid-1930's the Washington Legislature enacted what has become known as "Title 52," laws allowing the formation of fire protection districts. First known as Rural Fire Districts, these autonomous municipal corporations were intended to offer some measure of public support for fire protection to unincorporated areas. Organized fire protection outside of cities at that time was almost unknown. What Title 52 did was give the people the opportunity to organize fire protection and to tax themselves for its support. Despite the fact that they bear county-sounding designations, fire districts are not part of county government. They are individual entities, administered by elected

commissioners. The county role is largely that of tax collection. On January 1, 1999 the consolidation of several rural fire districts created a new Fire and Emergency Medical Services agency called Eastside Fire & Rescue. [www.eastsidefire-rescue.org/](http://www.eastsidefire-rescue.org/)

### **Government Organizations**

#### **King County Department of Natural Resources and Parks**

Department of Natural Resources and Parks' mission is to be the steward of the region's environment and strengthen sustainable communities by protecting our water, land and natural habitats, safely disposing of and reusing wastewater and solid waste, and providing natural areas, parks and recreation programs. <http://dnr.metrokc.gov/>

#### **Washington State Department of Natural Resources**

The people of Washington own more than 5 million acres of land - forests, farms, commercial properties and underwater lands - all of which are managed to provide benefits to the people. The Department of Natural Resources' mission is: To provide professional, forward-looking stewardship of our state lands, natural resources and environment; and to provide leadership in creating a sustainable future for the Trusts and all citizens.

The DNR also protects other public resources- fish, wildlife, water, etc. Two of the largest and most important responsibilities in resource protection are fire prevention and suppression and regulating forest practices (or timber harvest). [www.dnr.wa.gov/](http://www.dnr.wa.gov/)

#### **King County Duvall Fire District 45**

The District includes the City of Duvall, the communities of Lake Margaret and Lake Marcel, and the surrounding areas. Our mission is to provide for the safety of our community by delivering comprehensive emergency services and a broad range of safety education and information. District 45 also provides important backup resources to Eastside Fire and Rescue and would be among the first responders to any wildfire in the Tolt Triangle Fire Council communities. <http://www.duvallfire45.com/>

#### **U.S. Forest Service**

US Forest Service land (Alpine Lakes Wilderness, part of the Mt. Baker Snoqualmie National Forest) borders the Tolt River Watershed and the Snoqualmie Tree Farm and is due east of the Tolt Triangle Fire Council area of concern. The Forest Service is responsible for fire suppression on Forest Service managed lands, and the Forest Service takes an active role in prevention and education relative to forest fires.

The Mt. Baker-Snoqualmie National Forest in Washington State extends more than 140 miles along the western slopes of the Cascade Mountains from the Canadian border to the northern boundary of Mt. Rainier National Park. The Forest covers portions of Whatcom, Skagit, Snohomish, King, and Pierce Counties. Together, with the other central Puget Sound counties, 62% (3.63 million people) of the State's population lives within a 70-mile drive of the Forest. The large population factor, coupled with easy road access, makes the Mt. Baker-Snoqualmie National Forest one of the most visited National Forests in the country. [www.fs.fed.us/](http://www.fs.fed.us/)

#### **City of Seattle, Seattle Public Utilities Tolt Watershed**

The City of Seattle manages two watersheds for the purpose of supplying drinking water to the citizens of Seattle. The Tolt Watershed supplies approximately 1/3 of that drinking water and is located northeast of the Tolt Triangle Fire Council area of concern. The Tolt Watershed is managed solely as a water supply source supported by approximately 14,000 acres of second growth forestland

### **Private Organizations**

#### Hancock Forest Management

Hancock Forest Management is responsible for management of the Snoqualmie Tree Farm. This tree farm is being managed as an industrial forest with sustainable revenue and fiber production being a primary focus. The tree farm is approximately 103,000 acres and is directly east of the Tolt Triangle Fire Council area of concern.

## **Appendix 2**

### **Knox Boxes**

If there is a fire or other emergency, it is critical that the Fire Department have rapid access to your property. If you have a locked gate to your property, this can delay the Fire Department's response. One way you can make it easy for emergency personnel to access your property (without damaging anything) is to install a Knox box on the gate.

Knox boxes are a secure system that allows Fire and Emergency personnel access to your locked gates. These boxes can only be opened by Fire and Emergency Medical personnel (Police do not have access). In fact, some of the boxes are set up in such a manner that once installed you do not even have access to the box.

The box itself can contain keys to locks, access codes, or even override switches to gates or other locked areas on your property.

The Knox box lock box system utilizes a single master key, with all lock boxes within Eastside Fire and Rescue's jurisdiction keyed to the same master key. The master key is secured with only authorized Fire Department personnel having access to the master key.

Having a Knox box on your locked gate will speed Eastside Fire and Rescue's response time and may help save your property in case of an emergency.

For more details or to purchase and install a Knox box, contact:

Eastside Fire and Rescue  
175 NW Newport Way  
Issaquah, WA

425-313-3200

## **Appendix 3**

### **Tolt River Watershed**

The South Fork Tolt is Seattle's "other" watershed. Nestled in the foothills of the Cascades east of Carnation, WA, it supplies about 30% of the drinking water for 1.3 million people in and around Seattle. It first came on-line in 1964. In 1997, the City of Seattle successfully exchanged lands within the South Fork Tolt watershed with Weyerhaeuser. This exchange gives Seattle 70% ownership of the land that supplies the water.

The landscape of the Tolt River Watershed is predominantly second-growth forests occurring on fairly steep hillsides. The Dam is an earthen dam.

#### The South Fork Tolt River Watershed:

- Is 12,500 acres in size.
- Can provide up to 100 million gallons of drinking water a day!
- Began operation in 1964.
- Can store up to 18.3 billion gallons of water.
- Ranges from 760 feet in elevation at the regulating basin, to 5,535 feet at McLain Peak.
- Receives between 90 and 160 inches of precipitation a year!

For more details, refer the Tolt River Watershed web site:

[http://www.seattle.gov/util/About\\_SPU/Water\\_System/Water\\_Sources\\_&\\_Treatment/Tolt\\_River\\_Watershed/index.asp](http://www.seattle.gov/util/About_SPU/Water_System/Water_Sources_&_Treatment/Tolt_River_Watershed/index.asp)

## **Appendix 4**

### **Harvesting Tress and/or Land Clearing**

If landowners are contemplating harvesting timber, cutting trees or clearing land, it is likely a permit would be required. Contact King County Department of Development and Environmental Services and/or the Washington State Department of Natural Resources regarding specific requirements.

The consequences of conducting an activity without the required permits range from a significant fine to a \$10,000.00 civil penalty to the automatic imposition of a six year development moratorium. The moratorium can be in addition to fines and civil penalties. The affect of the moratorium is to preclude King County from accepting or approving any application related to conversion of forest land to non-forestry uses such as to a residence, a commercial development or a pasture.

## Appendix 5

### Fuel Reduction, Precommercial Thinning and Hand Slashing Contractors

C&V Reforestation Inc  
PO Box 1482  
Chehalis WA 98532  
PH # 360-740-4493

EVS Forestry Inc  
PO Box 197  
Toutle WA 98649  
PH # 360-274-7637

Jose's Reforestation  
634 South Market Blvd  
Chehalis WA 98532  
PH # 360-748-4691

Monty's Tree Service  
Montgomery R. Konold  
15 G Street S.E.  
Auburn, Washington 98002  
(253) 351-9975

Ramirez Reforestation Inc  
PO Box 1412  
Chehalis WA 98532  
PH # 360-269-1769

Timberline Silvics Inc  
PO Box 1900  
Snoqualmie WA 98065  
PH # 206-799-6133

**Appendix 6**  
**Firewise Community Assessment Form**

**Wildfire Hazard Severity Form Checklist    NFPA 299**

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

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

Totals for this page

0	0	
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<b>D. Additional Rating Factors</b>		or area	/ 2
1. Topography that adversely affects wildland fire behavior	0 - 5		
2. Area with history of higher fire occurrence	0 - 5		
3. Areas of unusually severe fire weather and winds	0 - 5		
4. Separation of adjacent structures	0 - 5		
<b>E. Roofing Materials</b>			
1. Construction material			
Class A roof ( metal, tile)	0		
Class B roof ( composite)	3		
Class C roof ( wood shingle)	15		
Non-rated	25		
<b>F. Existing Building Construction</b>			
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		
<b>G. Available Fire Protection</b>			
1. Water source availability ( on site)			
500 gpm pressurized hydrants < 1000ft apart	0		
250 gpm pressurized hydrants < 1000ft apart	1		
More than 250 gpm non-pressurized, 2 hours	3		
Less than 250 gpm non-pressurized, 2 hours	5		
No hydrants available	10		
2. Organized response resources			
Station within 5 miles of structure	1		
Station greater than 5 miles	3		
3. Fixed fire protection			
Sprinkler system (NFPA 13, 13R, 13D)	0		
None	5		
<b>H. Utilities ( Gas and Electric</b>			
1. Placement			
All underground utilities	0		
One underground, one aboveground	3		
All aboveground	5		
<b>Totals for this page</b>		0	0
<b>I. Totals for Risk Assessments</b>			
<b>Totals for page 1 and 2</b>		0	#R EF!
1. Low Hazard: < 39 points			
2. Moderate Hazard: 40-69 points			
3. High Hazard: 70-112 points			
4. Extreme Hazard: 113 > points			

Census Data				
Track number				
Block group number				
Block number (s)				