

# **Tolt Triangle Fuels Reduction and Forest Health Management Project**

**Final Report  
December 1, 2007**



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Opportunity Grant awarded by the King County Department  
of Natural Resources and Parks**



**King County**

Department of  
Natural Resources and Parks

**Water and Land Resources Division**

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## **Introduction**

The Tolt River Highlands (hereafter referred to as TRH) is a forested residential community located in rural King County, Washington. The community consists of 120 individually owned lots of approximately 20 acres each. The total area of land under private ownership in the TRH is over 2400 acres, most of which is heavily or partially forested. Douglas Fir is the dominate species populating the area with other assorted conifers and hardwood trees represented in smaller proportions.

Many of the landowners in the Tolt River Highlands manage their forests in accordance with King County approved forest management plans which they have developed themselves under the guidance of King County foresters and/or with private forestry consultants. Although the specifics of each landowner's plan varies, most plans have the goal of ensuring long-term forest health through planned forest management activities.

The area also has two active citizen-run organizations, the Carnation-Duvall Citizen Corps Council Inc. (hereafter referred to as CDCCC) and the Tolt Triangle Fire Council (TTFC) which have been active in providing information and assisting in the organization of owner based efforts to manage privately owned forestland and increase awareness of fire control and protection practices.

## **Project Information**

**Title:** Tolt Triangle Fuels Reduction and Forest Health Management Project

**Project Dates:** March 13, 2007 – November 1, 2007

**Sponsoring Organization:** Carnation-Duvall Citizen Corps Council, Inc. (CDCCC)

**Fiscal Agent:** Carnation-Duvall Citizen Corps Council, Inc. (CDCCC)

**Participant Group:** Tolt River Highlands (TRH) Community Forested Landowners  
Total ownership representing 17 lots (approximately 320 acres)

**Project Partners:** Tolt Triangle Fire Council  
International Forestry Consultants  
Sub Terra Incorporated

**Project Coordinator:** Deanna Schroeder, TRH Landowner

## **The Project Proposal**

The need for this project arose from a combination of two events. First, in December 2006, Mother Nature delivered some very fierce winter storms that caused considerable damage to the forests in the TRH and surrounding areas. The total or partial blow down of trees in several sections of the forest created both an immediate safety hazard for the residents of the Tolt River Highlands as well as a numerous potential long-term forest health consequences including (but not limited to) a severely increased forest fire fuel supply, creation of conditions favorable to infestation by beetles & other insects and increased potential for root rot and susceptibility to other forest diseases. Second, over 42 lots in the Tolt River Highlands have been designated as a ground water recharge area (hereafter referred to as GWRA). As a result, the landowners ability to obtain permits to carry out both immediately necessary and longer term forest management operations has been severely restricted. All permits for forest management activities were being denied and would continue to be denied until a comprehensive geo-hydrology study conducted by a state approved geotechnical consultant was completed and available for review. The cost of obtaining such a report was prohibitive for any one landowner to bear. As a result, a group of TRH landowners representing ownership of over 320 acres decided to work together to cooperatively obtain the needed report.

The purpose of the report was to have an expert geologist evaluate the potential that the removal of trees from the area would have to affect the underlying groundwater recharge area. The goal and expected outcome of obtaining the report was that the

conclusion of the study would determine that the removal of downed and damaged trees from the winter storms would not adversely impact the condition of the designated GWRA. Furthermore, that landowners carrying out the activities as defined in their approved forest management plans would also be determined to not adversely impact the GWRA and thus permits to allow the operations necessary to carry out long term forest health and management goals could be obtained.

## **The Project Execution**

On March 13, 2007 the Forestry Opportunity Grant (hereafter referred to as FOG) Agreement between the CDCCC and King County was finalized. One of the goals of the FOG was to encourage cooperative forest management among landowners. After approval, the participating group of cooperating TRH landowners was finalized and work on the project was begun. Commitments from project partners were also solidified. CDCCC agreed to provide administration and accounting assistance and be the fiscal sponsor for the project. The Tolt Triangle Fire Council agreed to provide educational information and support as well as via its existing website ([www.toltfirewise.org](http://www.toltfirewise.org)), offer a way to make the results of the project more widely available to the public. This would allow for other communities to use this project as a guideline for future cooperative forestry efforts. Matt Rourke representing International Forestry Consultants volunteered to donate professional/technical forestry assistance, analysis and advice as needed. Cooperating TRH landowners also committed to making a financial contribution to the project.

Study bids from qualified hydro-geologists were obtained. Bid proposals were compared and George Bennett of Bennett Consulting was chosen as the geo-hydrologist to conduct the study. A “scope of work” summary was submitted to King County. Per the scope of work submitted, the planned geological assessment would address the potentially unstable landforms in and around the application site (GWRA) and provide analysis on the following issues:

1. The likelihood of the proposed forest practice causing movement of potentially unstable slopes or landforms, or contributing to the further movement of potentially unstable landforms.
2. The likelihood of delivery of sediment or debris to any public resources in a manner that would threaten public safety.
3. Any possible mitigation for identified risks or hazards

King County approval for the scope of work was given and George Bennett began work on the study.

During this time, several TRH landowners began the process of applying for permits for their individual storm clean-up and forestry management projects. The approval of these permits in process would be pending the outcome of the geo-hydrology report but due to the severity of the storm damage, several landowners began the permitting process while still awaiting the outcome of the geo-hydrology report.

## **The Outcome**

The geo-hydrology report by Bennett Consulting was completed on July 10, 2007. The conclusion of the study was that the proposed storm clean-up and thinning operations would have negligible impact on the GRWA's potentially unstable landforms and would not present a threat to public safety. (See Exhibit 2)

In late August, the first of the TRH storm clean-up projects was begun for lots located in the GWRA. The completion and favorable conclusion outcome of the geo-hydrology study allowed for the permits in process affecting hundreds of acres of TRH land to be approved and intensive clean-up efforts by professional loggers in accordance with TRH landowner forest management plans were conducted over the next several months. (See Exhibit 1 for before and after photos)

The goal of reducing the fire fuel supply and debris was achieved. The risk of beetle and other insect infestation was minimized. Overall health of the forest was improved thereby reducing the likelihood of root rot and other diseases. Moreover, the safety of residents living in the Tolt River Highlands community was improved as the danger associated with fallen and partially downed trees and unstable piles of logs, branches and debris was minimized.

The benefits of the outcome of this project will be ongoing in the future. TRH landowners can now continue to plan for the long term management of their forested properties knowing that their ability to obtain forestry operations permits will no be categorically denied due to the fact that their land is in the ground water recharge area. Probable future projects include commercial and/or non-commercial thinning for improved forest health.

## **Project Successes**

In addition to the successful outcomes noted above, this project made a positive contribution to the TRH community. The contributions of the CDCCC and the TTFC to this project has resulted in an increased community awareness of these citizen-run organizations and the wealth of information that they have to offer. The result is an improved collective knowledge on the part of landowners about the resources and information available to help them better manage their private forested properties.

Increased communication among TRH community landowners (both resident and non-resident) has also been an outcome of the project. Through e-mail links, phone calls and meetings there have been increased opportunities for the sharing of information in the future.

The final goal of this project is to make the results available for other communities to use as a model for future cooperative forestry efforts. In addition to making copies of this report available, information will be posted on the website of the TTFC so it can be more easily referenced by others wishing to learn more about cooperative forestry projects.