

## Tubbs Hill Native Habitat Restoration

Coeur d'Alene is privileged to have Tubbs Hill, a unique lakeside natural park, in the midst of the city. Tubbs Hill serves as a welcome escape, a play area, a nature adventure, and a scenic backdrop for exercise. Tubbs Hill fans revel in its tall trees, wildlife, scenic vistas and wildflowers.

The health of native vegetation on Tubbs Hill plays an important role in maintaining the values the Hill offers to so many people. Yet in certain areas non-native species have been slowly taking over sites important for indigenous plants.

### Some Tree History

Tubbs Hill historically has been composed of ponderosa pine and Douglas-fir trees with some larch. With the exclusion of wildfire, shade-tolerant Douglas-fir has become a larger part of the tree population than it would have under natural circumstances. The Douglas-fir has developed root rot, a fungal disease that spreads underground by root contact. The large numbers of Douglas-fir has made it easy for the root rot to quickly spread. The result is the death of many Douglas-fir trees over the past decade.

Meanwhile, wind and birds were carrying seeds of Norway maple and cherry trees from adjoining neighborhoods onto the hill. Where sufficient moisture could be found, the seeds sprouted in the shade of the native forest. This process was aided by the sudden loss of trees to ice storm damage (1996) and root rot. The non-natives responded to increased sunlight with quick growth. They are now scattered throughout approximately 30 acres of Tubbs Hill, primarily on the north and east facing slopes.

### The Problem with Non-natives

The problem is not that we don't like the non-native trees, it's that we like the native trees more. The places where the non-natives are gaining a foothold are the moistest sites on Tubbs Hill. These sites should be the home of ponderosa pine, western white pine (Idaho's state tree), western larch, and a variety of native shrubs. All of these native tree species need sunlight to become established. They cannot compete with the shade-dense Norway maple and cherry trees.

These sites are, in fact, the only opportunity to grow white pine and larch on Tubbs Hill. If we are to have these native trees on Tubbs Hill, action must be taken to control the non-native trees and preserve the native habitat.



Photos of Vegetation at swinging bridge 20 years ago (left) and today (right)

## Action Plan

To help restore these native habitats on Tubbs Hill, the Urban Forestry Committee recommended a pro-active approach to controlling non-native trees. With a fuel-reduction project planned for 2010 to reduce the threat of wildfire, there was an opportunity to combine non-native control with these projects.

Step One (has been completed): Cut down small non-native trees in conjunction with fuel reduction efforts. The freshly-cut stumps of targeted non-natives were treated with an herbicide to prevent them from re-sprouting.

Step Two (has also been completed): Control the larger maples and cherry trees by the “hack and squirt” method, where a hatchet is used to cut through the cambium layer of the tree, and herbicide is applied to the cut.

Step Three: Plant the treated areas with a mixture of native trees and shrubs. 2,500 seedlings (western white pine, ponderosa pine, and western larch) have been purchased and will be planted in April, 2011. Volunteers will be helping to plant these trees.

Step Four: A yearly follow-up. The area would be inspected for trees not sufficiently controlled, or new ones that may be getting a start. Control efforts could vary from pulling small seedlings to spot herbicide applications. Follow-up maintenance must be continued until the planted native trees reach a height of 15 to 20 feet.



### Tubbs Hill Non-native Trees

Map Prepared in February, 2010

#### Legend

- Scattered Non-Native Trees
- Norway Maple Concentration

## **The Herbicides**

The Urban Forestry Committee does not take use of herbicides lightly. The recommended herbicides were selected because they are environmentally safe as well as effective. Copies of the labels and Manufacturer's Safety Data Sheets (MSDS) can be viewed at the Parks Department office in City Hall

- Cut stump treatment and basal spray – Garlon 4 Ultra
- Hack & squirt of larger trees – Accord and Arsenal

If you have any questions or wish to provide comment, please contact Karen at 769-2266.