



**DOGWOOD
TREE
SERVICE**



Member of



Society
of
Commercial
Arboriculture



Dogwood Tree Service
1611 Kersey Road
Brentwood Bay, BC V8M 1J5
Tel.: 250.652.9654
www.dogwoodtreeservices.com

Donald Bottrell, Consulting Arborist

December 14th, 2010

Ian Cameron, President
RROCSS
#105 - 7088 Wallace Drive
Brentwood Bay, BC V8M 1P4

Re: Mount Newton/Senanus Waterline Project

Dear Mr. Cameron;

At the request of Ms. Lori Waters, I have visually examined the course which will be taken during the installation of the proposed waterline from Mt. Newton X Road to the west end of Senanus Drive. The purpose of this examination was to determine potential areas of conflict which exist between native trees and proposed cut/excavations, which will be required to complete the line installation.

Visual examination of the course determined that the existing road is bordered, up and downslope, by Big leaf maple, *Acer macrophyllum*; Douglas fir, *Pseudotsuga menziesii*; Garry oak, *Quercus garryanna* and Pacific madrone, *Arbutus menziesii*. For the record, all of these species are deemed protected under the District of Central Saanich's "Tree Protection Bylaw No.1595", dated July, 2008.

Evidence of exposed bedrock outcrops and undulations associated with the Mt. Newton X Road/Senanus Road area - in relation to the location of the existing native trees are indicative of the limiting factors which are present in native soil profiles in this area. It is these soil limitations which dictate the development and extent - horizontal and depth, of both woody mechanical/support and non-woody absorbing roots, in the rhizosphere. It is in this rhizosphere where woody mechanical support roots and non-woody absorbing roots generate and function, that severe conflict exists with the proposed cut line.

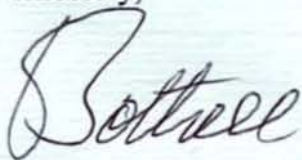
The proposed cutline will require the outright removal of native trees. Those adjacent to the cutline will be subjected to mechanical wounding and loss of mechanical support roots, subsequently exposing them to structural failure or "windthrow". Arboricultural mitigative measures may reduce the potential for failure of these trees, however, it is unlikely that a certified arboricultural consultant will assume any responsibility for the liability associated with tree failure, tree loss or personal injury secondary to tree failure.

The longterm effect of the cutline will manifest in the trees as a direct result of the hydrological changes which will be realized. This change will be directly attributed to existing hydrological flows being bisected by the cutline. The bisection of the existing north-south hydrological flow by the east-west cutline/excavation will accelerate drainage on the north/upslope and drastically reduce available water in the rhizosphere on the south/downslope. It has been our findings that the current age class, vitality and rhizosphere (i.e. organic soil profile in which non-woody absorbing roots generate and function) of the existing trees will not withstand this sudden change. Consequently, trees will enter into a state of dysfunction which most often leads to strain (irreversible stress). It is in this state of strain that a slow undignified death is inevitable.

It has been my experience as an arboricultural consultant serving British Columbia's Urban Forest since 1983 - that the proposed waterline installation will necessitate "Bylaw Protected" trees being removed prior to the waterline installation, and then subsequent removal of mechanically unstable/hazardous trees created as a result of the loss of mechanical supportive woody roots; dysfunction, strain and death attributed to loss of rhizosphere and hydrological changes.

Should you have any questions regarding the information contained herein, please contact the undersigned.

Yours Sincerely,

A handwritten signature in cursive script that reads "Bottrell".

Don Bottrell, Consulting Arborist
Dogwood Tree Services Ltd.