

**Sierra Club Canada Delegation to City Council regarding Royal City Park  
November 23 2009**

Dear Mayor Farbridge and City Councilors,

Sierra Club Canada respectfully submits the following comments on the Royal City Park Plant Management Plan:

1. Vision statement. Virtually all of the 13 public comments on the vision statement referred to the image of large trees and canopy. In our opinion, these are the elements that should be included in a vision statement: The vision of Royal City Park with large, mature native trees and a mostly closed canopy.

The current vision statement is, we believe, too technical and too detailed, containing a definition of healthy tree, reference to management practices, a specific percentage of canopy, etc. While we can appreciate that this level of detail is helpful from a management perspective, we believe a vision statement should be more general in nature and that management details should be left to the plan itself.

2. The definition of "healthy tree" in the report is questionable. The consultant stated at the CDES committee meeting that the definition came from a number of sources, and that it was not the "standard" definition of a healthy tree used by the industry.

As you know, policy implementation can be significantly influenced by the definitions in policy documents. We are concerned that in this case the definition of "healthy tree" is so uncompromising that it could facilitate the removal of trees that are healthy but do not meet the stringent definition. For example, the definition states that healthy trees exhibit "symmetrical crowns showing even development on all sides." So an asymmetric tree is unhealthy by definition.

We have asked for clarification on this point: Does this definition mean that trees that don't meet this ideal will be subject to removal?

3. Naturalized areas. According to the report, 86% of the surveys completed supported naturalization of the Park. Yet, we are told by staff that one of the two naturally regenerating areas will not be designated as a naturalized area. In addition, naturalization is not scheduled to occur until 2012, and then only "small pilot naturalized areas" with shrubs will be established.

We believe the two existing naturally-regenerating areas in the park should remain and that a more aggressive plan for naturalization should be implemented in order to offset the environmental damage caused by the mass removal of mature trees from the Park.

4. Canopy loss. If all 52 trees are removed as planned, over 25% of the canopy in the park will be lost. Of those 52 trees, a dozen or so were rated as Medium priority for removal. Therefore, it should be possible to retain the Medium priority trees for the short term to mitigate the loss of canopy. This would also allow for replanting to occur before all trees are removed.

We notice that the report to council states that this plan "directly supports the City's tree canopy coverage objective" in the Strategic Plan, which reads as follows: A biodiverse city with the highest tree canopy percentage among comparable municipalities.

We find it an odd concept that a loss of 7,729 square metres of canopy (a number provided by the consultant) would "directly support" this goal of tree canopy. We suggest that to get a more realistic idea of how the tree canopy goal is being supported that an annual report be generated which documents the amount of canopy lost versus the amount of canopy actually replaced by tree plantings, rather than estimates of future canopy replacement.

5. Funding for replanting. The importance of trees and canopy to the health of the City and its citizens is clear. This is evidenced by the fact that tree canopy is a Strategic Plan priority. Funding for green infrastructure should not have to go begging. It should be a high priority in the City budget, even if it requires cuts to other programs. We hope council will have the foresight to fully fund the replanting and naturalization plan for Royal City Park.

**Additional comments on veteran trees in Royal City Park with respect to the Royal City Park Plant Management Plan:**

1. Vision Statement. We believe the vision statement should reflect public comments: that Royal City Park be characterized by large, mature native trees with a nearly closed canopy.

2. Healthy tree definition. We believe the definition of "healthy tree" is unworkable.

3. Naturalization. As 86% of respondents supported naturalization in the park, we believe the plan should include more naturalization and it should begin immediately, not in 2012.

4. Tree removals. We object to the mass removal of 52 trees. And contrary to what was printed in the Mercury, Sierra Club did not suggest that 34 trees require immediate removal; we did point out that the report done for the City recommended 34 trees for immediate removal. We disagree with the assertion that this plan, which will remove 25% of the canopy of the park, directly supports the city's canopy goal.

5. Funding. We urge council to make replanting and naturalization a budget priority because of the enormous benefits that green infrastructure provides to citizens.

Finally, we would like to say a word about risk management.

Many of the trees in this park are old, or veteran trees. Among many other things, veteran trees store between 600 and 1000 times more carbon within their biomass than 3-inch diameter trees. And they continue to store additional carbon as they age, annually sequestering between 30 and 80 times more carbon than small trees. (Nowak 2004)

According to the City's natural heritage strategy, over its lifetime, a 50-year old tree has provided over \$150,000 in environmental services by producing oxygen, reducing air pollution and

recycling water. So assuming that the trees proposed for removal are only 50 years old, they have provided over \$8 million in services over their lifetimes and could continue to provide these valuable services.

One of the greatest threats to veteran trees is misunderstanding (Read 2000). Many have been cut down as they were thought of as dying, diseased and dangerous. Those who study veteran trees know that they naturally shed branches, which helps to relieve the pressure on declining root and leaf systems and helps the tree maintain stability. Pruning some limbs from these trees will usually make them safe (Corney 2007).

It is also known that cutting all trees which surround veteran trees can result in leaf scorch, dessication and possible frost damage. This stress may even kill the tree (Corney). Therefore, the mass removal of 52 trees could very well compromise the health or kill the veteran trees that remain.

The main reason for wanting to remove these trees is risk of injury. How likely is that? The risk management organization in the UK has determined that the risk of being killed by a tree in a public space is 1 in 20 million. Compare that with the odds of being killed in a terrorist attack while traveling (1:650,000); the risk of being killed by snakebite (1:1.2 million), the risk of being killed by lightning (under 1:1 million).

The risk of being killed by a tree in a public space is so low that it's not even on the charts. A risk of death of 1:10,000 is considered unacceptable. A risk of death below 1:1 million is considered broadly acceptable. So the risk of being killed by a tree in a public space is 20 times below the broadly acceptable risk.

But in a risk adverse society, irrational fears can lead to massive expenditures on defensive tree management, which means the unwarranted, irrational culling of trees. How much of our tree budget is spent on risk management? Experts in the UK estimate over 70%.

In 2004, in a widely publicized and cited case, a 10-year-old boy was killed at the RBG by a falling tree. Was the tree a behemoth, keeling over from decay? No: it was a 30-foot tree. In August of this year a woman jogging in a Pennsylvania park was killed by a falling tree branch. Park officials thoroughly investigated the incident and found that it was a healthy tree. They could discover no reason for the branch failure. Tree evaluation is not an exact science.

We desperately need a tree risk management strategy based upon reasonable control of risks. The public needs to be engaged in a discussion of the nature of the risks involved in the enjoyment of trees. In the UK, the Veteran Trees Initiative has been formed to fill this void. There is a strong case that this should be a high priority for our City so that important components of tree populations are not needlessly lost, as will likely occur in Royal City Park.

Respectfully submitted,

Judy Martin, Regional Representative  
Sierra Club Canada