Main Mall Tree
Inventory

Jane Ho
April 6, 2018
Tree Inventories

Provide insight of the urban forest condition on Main Mall. The data can help to inform the development of UBC’s Urban Forest Management Plan!
Prior Research

The UBC Student Tree Inventory Team

- Inventories trees in the Stadium Neighbourhood
- Developed a protocol for conducting tree inventories at UBC
How Did I Inventory?

**Tree Tag**
Tree ID number based on the previous tree inventory conducted in 1998.

**GPS Coordinates**
The longitude and latitude of each tree found using the Avenza Maps™ application on an android device.

**DBH (mm)**
Diameter of the trunk measured at approximately 1.3m from the base of the tree using D-tape.

**Groundcover**
Visual estimate of percent vegetation cover within 1m from all sides of the tree.

**Crown Width (m)**
Crown width was measured by pacing from the north to south side of the tree and then from the east to west side of the tree. Crown width was recorded as the average of both measurements.

**Tree Height (m)**
The Nikon Laser Rangefinder Forestry Pro was used to measure tree height.

**Crown Height (m)**
The Nikon Laser Rangefinder Forestry Pro was used to measure crown height. The height is measured from the top of the tree to the lowest branch.

**Probability of Failure**
Likelihood that a tree will fail or die. The 5 level rating system follows the tree risk assessment that was done by last year’s tree inventory team. The rating system is based off of ISA’s Tree Heath and Risk Assessment.
Inventoried Area

- Iconic part of the UBC Campus image
- All red oaks (*Quercus rubra*) except for one white oak
- Earliest red oaks were planted in the 1920s
Summary of Field Measurements

**Tree Height**
- Tallest tree: 37.6m
- Shortest tree: 6.8m
- Average: 20.8m

**DBH**
- Greatest: 126.1mm
- Least: 9.1mm
- Average: 67.1mm

**Crown Ratio**
- Greatest: 96.8%
- Least: 37.8%
- Average: 85.8%
Number of trees in each probability of failure class

<table>
<thead>
<tr>
<th>Probability of Failure Rating</th>
<th>Count</th>
</tr>
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<tbody>
<tr>
<td>5</td>
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<tr>
<td>4</td>
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<tr>
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<td>2</td>
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- mechanical damage
- pathogens
- major cracks
Recommendations

1. Aerate the soil to reduce compaction
2. Maintain good communication with utility vehicles operators, arborists, contractors
3. Apply mulch – trade offs
4. Fertilize – depending on soil/foliar analysis
5. Prune broken/split branches hanging over benches and walkways
Special Thank You…

Owen Croy
Zach Wirtz
Dr. Sheppard
Dr. Konijnendijk and Sara Barron
UBC SEEDS
Michael Pang
References


Photos by Jane Ho