Tree Inventory Report and Management Plan for the Entrance to Durham's City Park

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By

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City of Durham's City Park Entrance
Tree Inventory and Management Plan

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Introduction

On July 26 and 27, 2006, AmeriCorps member, Sarah Kresse, and Oregon Department of Forestry Community Assistance Forester, Kristin Ramstad, conducted a park tree inventory of the entry area of the City of Durham's city park.

The purpose of the inventory was to

- determine the hazard level and related management needs of the trees at the entry of the park, which would be the basis of a basic tree management plan
- ascertain the relative age and species diversity of the park trees at the entry
- conduct a "pilot" inventory that could be used to justify a more complete tree inventory for the rest of the park.
- (from ODF's standpoint) test the new park tree inventory protocol developed by Sarah that is specifically designed to be used by community volunteers.

Additionally, the City Administrator, Roland Signett, requested that Sarah and Kristin walk the main paths through the park, away from the entry area, to look for any clear and immediate tree hazards. These areas were not inventoried tree-by-tree by the team; however, we have suggested some management needs for a couple of areas of concern.

Durham's city park is used frequently by citizens that live and work in the area. In the middle of the summer, it clearly provides respite from the seasonal heat and brightness. In the two days Sarah and Kristin spent there, they watched a succession of children and caregivers, picnickers, dog-owners, runners, and strolling people use the park.

Since trees are living things, they change over time. One of the goals of this management plan is to provide a strategic approach to sustaining the park's tree health on both a short and a long-term basis, both physically and economically. From a prudent management standpoint, this plan also strives to provide a structure from which to make sound fiscal decisions in the management of the trees at the entrance of the City Park.[1]

The plan for the park entrance starts with a hand-drawn map of the inventory area, followed by a summary of Findings from the collected tree data, then by Short and Long Term Recommendations, and a prioritized tree data spreadsheet. Information on how the inventory was conducted and the data gathered, tree data sorted by "tree number" are included in appendices.

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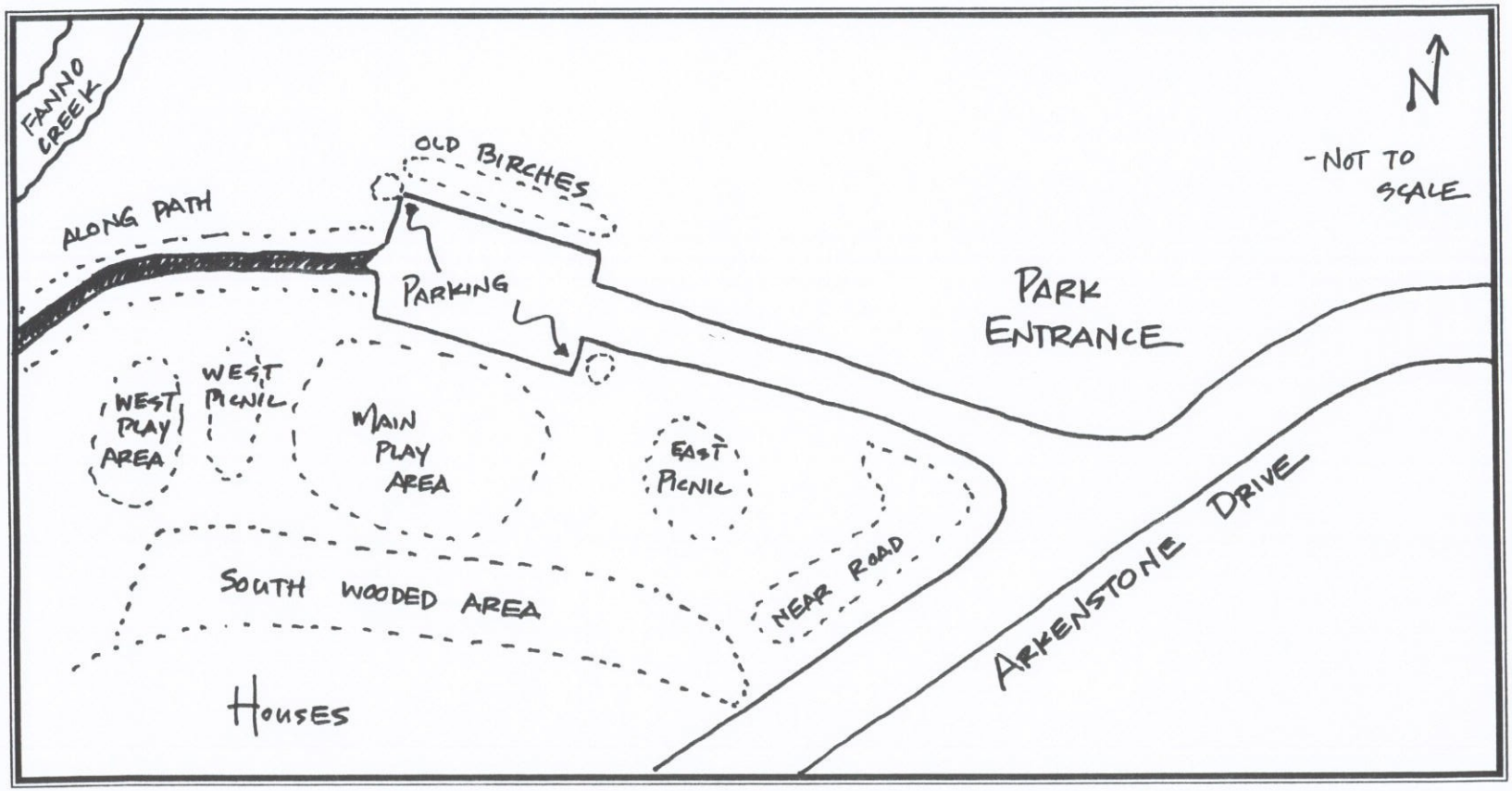
[1] In March 2007, Kristin revisited the park entrance to check on the trees, their number tags, and the follow-up recommendations.

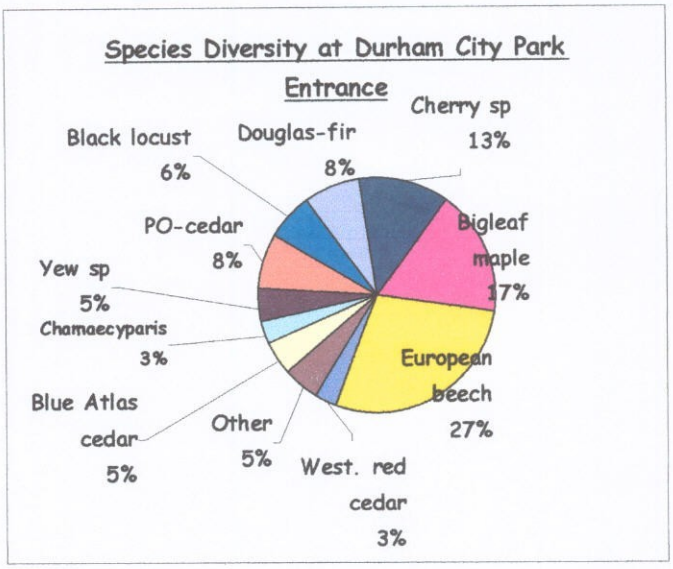
City of Durham City Park
Hand-Drawn Map of Tree Inventory Area
Showing General Tree Locations



Drawn by Kristin Ramstad
OR Dept Forestry
March 22, 2007

City of Durham's City Park Entrance
Tree Inventory and Analysis

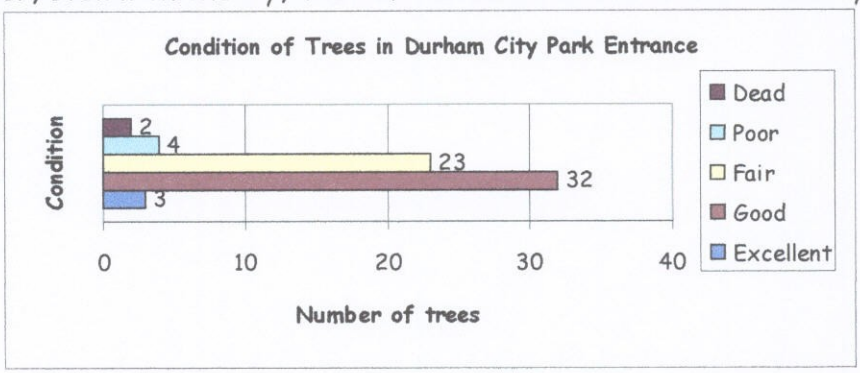
Findings:



- Of the 64 trees that were inventoried at the Durham City Park Entrance, 13 tree genera were identified.

- Of particular note are the 18 old, but healthy European beeches that border the south side of the play/picnic area. These trees are a rare find in Oregon parks, and comprise 27% of the inventoried trees at the park's entrance.

- The trees in the Durham City Park entrance are mostly in good shape. Some of the beech trees were "downgraded" to "fair" if they had a significant amount of English ivy growing on them, since the ivy obscures assessment. However, even with the ivy, most of the beeches still looked like they were in good condition.



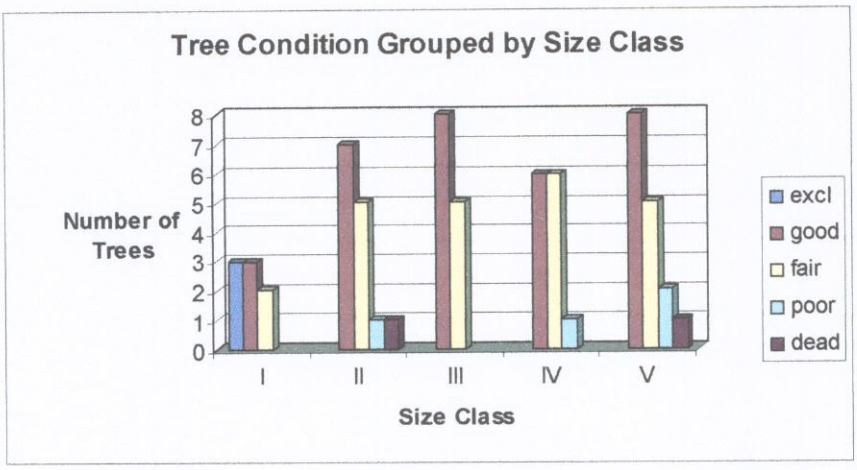
- 15 trees require deadwood, and/or hazard reduction pruning of scaffold branches to reduce likelihood of limb drop; 12 need structural pruning to improve long term strength; and nine trees need both deadwood and structural pruning. Six trees were determined to be "High Priority Prune", 18 are considered to be lower priority.

- 12 trees are designated "1" for high priority attention (within next two-six months); 11 have been determined to be "2", or intermediate priority (within the next 6-9 months); and 41 were determined to be "3", lower priority (next 9-36 months). Trees designated for higher priority maintenance are those closest to path and play areas, or near areas designated as frequent use.

- Two large "maple clumps" on the north side of the path just beyond the main play area need to be pruned for safety, but since they provide abundant animal habitat, should not be removed entirely.

- In each size class category, the "good" condition trees equal or outnumber all other conditions.

- Five trees have exposed or damaged roots. Compromised roots can affect long-term stability of the tree, but do not seem to be a compelling problem for these trees at this point.



Recommendations for Tree Management

Short-term priorities (next 2-12 months)

1. Schedule maintenance of highest priority "1" trees for Spring/Summer 2007. A few of these trees will require a further commercial arborist assessment and high canopy pruning, since a couple of the trees have large wounds that can compromise long-term stability.

2. Consider removal of - or making into "wildlife trees" - the large Atlas cedars (#136, 138) and Colorado blue spruce (#130) in the south wooded area.

3. Prune for safety the two maple clumps (#150, 151) along north side of path, close to start of park trail. These trees provide valuable wildlife habitat, so should only be pruned to minimize human/property hazard, retaining as many cavities as possible.

Recommendations in areas outside of inventory area:

4. Consider removing **all** the old birches along the North edge of the parking lot so that the area can be cleared and re-established with new trees. These non-native birches are old and brittle, and compete with nearby native Western redcedars. This area has good southern exposure, ideal for establishing new trees - either native fir, redcedar, or smaller flowering trees. The City wants to avoid removing these old trees after the new planting has been established.

5. Restrict public access to area north of the old birches. Trail has several tree and walking hazards along it that need to be attended to.

6. Assess dead tree "pocket" on North side of Fanno Creek Loop trail with Peter Torres, or other tree pathologist. Along the northwest edge of the Loop trail, there are several standing dead trees that are - and will become increasingly - hazardous. These should be removed or made into non-hazardous "wildlife" trees.

Long term management suggestions (next 12-36 months):

South Wooded Area:

1. Control invasive plants in South Wooded Area and restrict public access in the area. The area beneath the European beeches comprises invasive holly and laurel that, under usual circumstances, should be controlled (removed) annually. However, this is an area where old Port Orford-Cedar also grow. ***A disease deadly to Port Orford-Cedar, Phytopthora lateralis, can be carried into the area via dirt on the soles of shoes and spread during the winter months by water in the area.*** So, while it might be desirable to rid the area under the beeches of the invasive understory plants,

they do serve the purpose of restricting foot traffic to the area that could result in the death of the old cedars.

Nonetheless, I do recommend removing the invasive species, if not annually, at least every 2-3 years. I suggest training volunteers to do this in the spring, after most of the rain has stopped, but while the ground is still moist. The volunteers should make sure to brush and wash off the bottoms of their boots and clean their tools prior to entering and working in the area. The ivy should be cut and pulled off of the bottoms of the trees, and removed from the ground at least three feet from the trunk while the soil is still moist (if not in the Spring, late fall after the rains have saturated the soil somewhat). The laurel and holly should be cut/sawn down to the ground, and while trunk/stem is still moist, should be treated with Garlon or Round-Up, to prevent resprouting.

To discourage entry into the area by the Port Orford-Cedars, The City may want to consider erecting a small fence along the south side of the play area and grassy areas next to the trees, with informational signage explaining how important it is for people to stay out from under these trees (or risk killing the old cedars).

Park Entry

2. Schedule pruning and maintenance for intermediate (2) and lower priority (3) trees.

Area behind Birches (north of parking area)

3. After hazard mitigation and assessment (above), continue to monitor and perhaps restrict access to trails beyond the paved path areas where there is a history of tree and limb failure. These areas seem to attract activities that do harm to the park and bring litter into the forest. If some areas continue to be frequented, consider "developing" the paths fully by cleaning debris, mitigating tree hazards, and making the areas more accessible.