Tree Management Plan for Centennial Park, Salt Spring Island

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Introduction

Centennial Park was created in 1967 by infilling the upper portion of Ganges Harbour. The source of the fill was from dredging operations that were active at the time. In 1985 pile-driving and rip-rap repairs were made along the harbour foreshore adjacent to the park to prevent erosion, as well as to prevent these materials from re-filling the formerly dredged harbour area adjacent to the park. Also in 1985 plans were made to build the wooden walkway / promenade and bandshell, with the idea of encouraging public use and activities within the park. Judging from the current age of the trees, they would have been planted a few years after the infilling – when the soil had settled and drained. The planted trees have since grown and created a beautiful urban woodland that is used on a daily basis by residents and visitors alike. For a fairly small park there are a lot of interesting features within it including children's playground, cenotaph / war memorial area, wooden promenade that provides great views over the harbour, public plaza, picnic area, bandshell and, of course, the trees.   The park is the focal point and centerpiece for the Village of Ganges.

Acknowledgements

Report Objectives

The primary objective of this project is to have a close look at the trees in the park and to make comments and recommendations with regard to:

Pruning

- ⚒ to reduce the encroachment of low-growing branches, and to encourage activities in places such as the Market and playground

- ⚒ to create more light for other trees that may be suppressed by lack of light

- ⚒ to improve the health or beauty of a tree

- ⚒ pruning while not overly compromising summer shade for park visitors

- ⚒ tree roots growing under pathways and creating tripping hazards

Tree removals

- ⚒ where a tree is unhealthy

- ⚒ where certain trees are in awkward spots and taking up public space

- where the species is the wrong fit for the park

Tree additions

- the park is already well stocked with trees, but there may be few opportunities for additions

The secondary objectives are to look at the trees in relation to the other activities and elements that occur within the park including:

- the Market

- public space for organized and informal activities

- children's playground

- existing infrastructure and paths

- Cenotaph area

This report is not an inventory of the number of trees and species present in the park, nor does it speculate on how the park will dovetail into the long-term plans for the Village of Ganges. The report structure is roughly based on focal points within the park followed by general remarks on the entire park. A photo section with specific details follows the written portion of the report.

Objectives for the Market area

- Create more space for vendors and kiosks by pruning the lower branches of certain trees, and at the same time encouraging the slightly higher branches to extend over the area, creating a "canopy effect" over parts of the market, as well as providing summer shade.

- Remove one tree that is an obstacle to pedestrian circulation

- Prune trees with high public visibility for beauty and symmetry

- These recommendations assume that the long term plan is to keep the Market at the present location

Objectives for the Children's playground

- Pruning to allow more sideways light into the area, but at the same time ensuring the area has adequate shade for the summer months.

- Remove one tree that is unhealthy due to crowding

- Raise low hanging branches

- Fix or replace playground elements and consider adding an additional bench for parents

Objectives for the Public washroom area

This area needs more light and visibility so people feel more secure. Therefore:

- Prune trees to allow more light for people, visual security, and to discourage unwanted activities

- Provide more light to certain desirable trees that are currently suppressed

- The tall ornamental evergreens create a lot of shade, and reduce visibility in an area of the park that should be more open. However they do provide a formal backdrop for the cenotaph and flag pole. Therefore prune these trees in a more columnar, formal way to allow more light through to the public washroom, but at the same time maintaining their role for the cenotaph area.

Objectives for the Public Plaza

- Remove several of the trees that are unhealthy and block circulation

- Consider possibly removing the large tree in the middle of the plaza to create more space for activities, however this tree appears to be healthy so perhaps leave it for the time being, and remove only if necessary

- The trees in containers need a yearly top-dressing of good leaf mulch or well-rotted compost, with small amounts of fish fertilizer and dolomite lime for trace minerals.

- Plant roses or other perennial low-growing woody shrubs in the tree containers. Possibly species include kinnikinnik (*Arctostaphylosuva-ursi*) and California lilac (*Ceonothusthyrsiflorus*). Note that kinnikinnik requires less annual pruning than California lilac. This will reduce yearly cost of planting annuals and will discourage people from walking or sitting in the containers and compacting the soils

- The cenotaph area needs some attention befitting its importance. Improve overall drainage in this area by top-dressing yearly with sand or pea gravel, and aeration. Consult with local veterans on future plans for this area.

General remarks on the park

Soil issues

The soils in the park have likely originated from dredged marine sediments. Marine soils are typically high in clay which encourage soil compaction and discourage good soil drainage. The whole park appears to have poor drainage (except the little hills by the bandshell), and this is obvious by the puddles and surface water that is present after heavy rains. My recommendations are:

- ⚲ Use an Aerator that pokes holes into the dirt to improve soil oxygenation and soil drainage.

- ⚲ Top-dress yearly with coarse sand and possible fine pea gravel in places.

- ⚲ If any further soil settling occurs, which is likely, fill depressions with sand or fine gravel, then add thin layer of topsoil to encourage grass re-establishment.

- ⚲ For the cenotaph area - with Remembrance Day occurring during the wet time of the year - it would be good to improve drainage in this area so veterans and public alike can keep their feet dry.

Infrastructure

Centennial Park is a focal point of Ganges so it's important to maintain the infrastructure within it. This includes the benches, water fountain, public washroom, garbage receptacles,bandshell, and oceanside promenade.

Pathways

Should there be any new pathways in the park in an effort to reduce excessive traffic in certain areas? If so would porous gravel paths be practical instead of asphalt? Keeping people on paths will reduce trampling and soil compaction elsewhere. On the other hand additional paths reduce overall green space.

Tree roots are also growing under pathways in places and pushing up the asphalt and creating possible tripping hazards for pedestrians, as well as reducing ease of transport for wheelchairs and baby strollers. There are three options:

1. Lift up the asphalt, cut back the roots, and lay down new asphalt. The rule of thumb for safe removal is no more than 25% of roots within the drip line. That said, for tree health it is better to remove those roots that are furthest away from the trunk. The other consideration in Centennial Park is wind direction. With four to five severe winter storms each year accompanied by south-easterly winds, it is important to be more cautious about root removal on the windward side of the tree, and to ensure that no major roots are removed.

2. Lift up the asphalt, leave the roots, and lay down crushed gravel that covers the roots as well as filling up all the depressions between the roots leaving a smooth surface. No roots are removed in this option, but the finished pathway will not be completely level. Also gravel does not have as tidy an edge as asphalt does, unless a trim board is used to contain the gravel (which would be difficult to place given the roots). Also, while crushed gravel packs down well, it isn't as smooth a surface as asphalt, an important detail for wheelchair users. This is the cheapest of the three options.

3. Proceed with option 2, and then pave with asphalt over the crushed gravel.

Public Plaza

I see this as an excellent place to have public events or performances with people bringing their own folding chairs. Having events here will keep people on the hard surface, and reduce soil compaction elsewhere. It's also a logical place for the Market to use. Activity in this area will draw other pedestrians into the park.

Interacting with the public

To showcase the wonderful diversity of trees in the park, create a map of the park with the names of the trees as well as other interesting information. This map could be used by visitors for a walking tour of the park, and could be made available on the CRD parks website.

Photo Section

Photo 1:Market objectives are:
- Create more space for the vendors and their kiosks
- increase lateral light
- preserve and encourage shade from upper lateral branches
- improve pedestrian circulation

The trees in the Market corner should be pruned up about 18-24 inches, while encouraging the lateral growth of the slightly higher branches to create an umbrella effect over the area. The tree in the lower left of photo should be removed – it is in an awkward spot, impedes circulation, and is not particularly healthy.
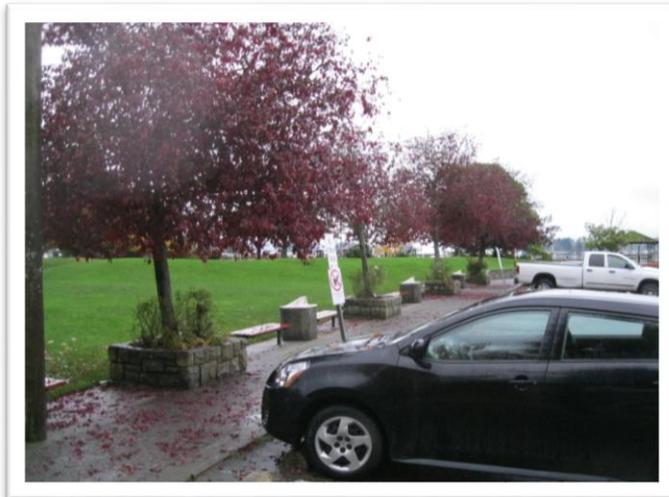

Photo 2: These trees adjacent to the parking lot seem healthy even though they are exposed to winter winds and occasional damage from Market activities. With high public visibility the main objective for pruning could be for symmetry, so lightly thin out some of the interior branches, and clip off the ends of the outer branches to produce a nice rounded look. Plant perennial low woody shrubs such as roses in the containers.

Photo 3: This is perhaps the most beautiful tree in the park. The wooden promenade, the tree, and great ocean views together create a very attractive place.
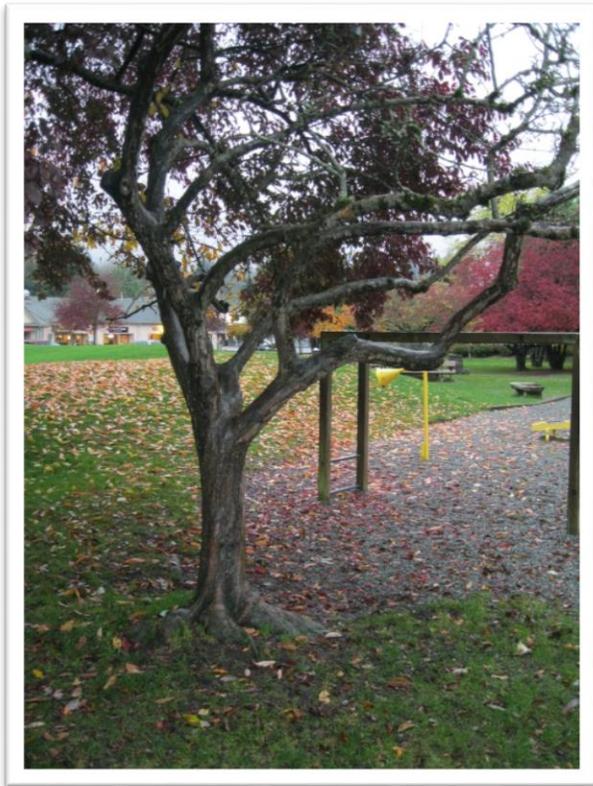
Photo 4: Children's playground area: this suppressed tree should be removed. By doing so more lateral light will enter the playground and grass can then be encouraged to grow on this spot.

Photo 5: This is a lovely cedar of Lebanon, and is obviously doing very well in this site. The only suggestion is to prune up the lower branches which are infringing on the playground, however the large limbs that come out of the base of the tree should remain – they allow kids to play in the tree.

Photo 6: This tree is perhaps an unfortunate choice for three reasons: as it grows it will block the kids' view of the ocean, it's prickly, and the limbs will extend into the playground area. Consider removal.
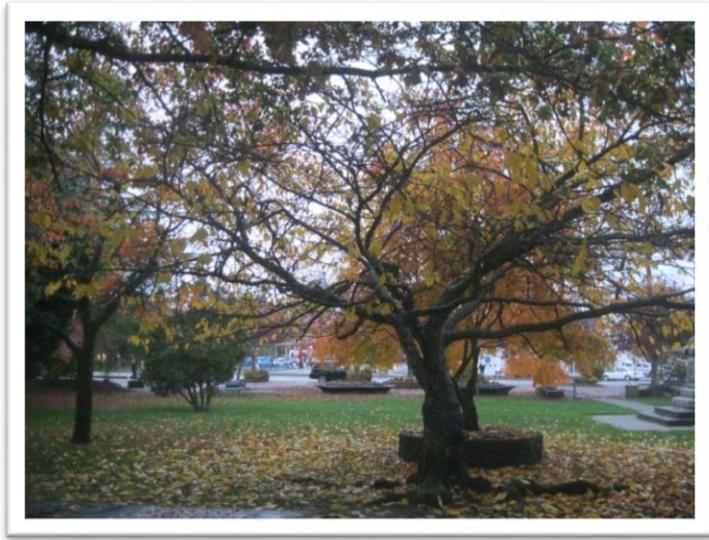
Photo 7: Central part of the park, close to the public washroom. Given that the cherry tree on the right is a desirable tree to have in the park, and is currently suffering from lack of light, the lateral limbs of the adjacent oak (just outside picture frame to the left) need to be either removed or pruned back.
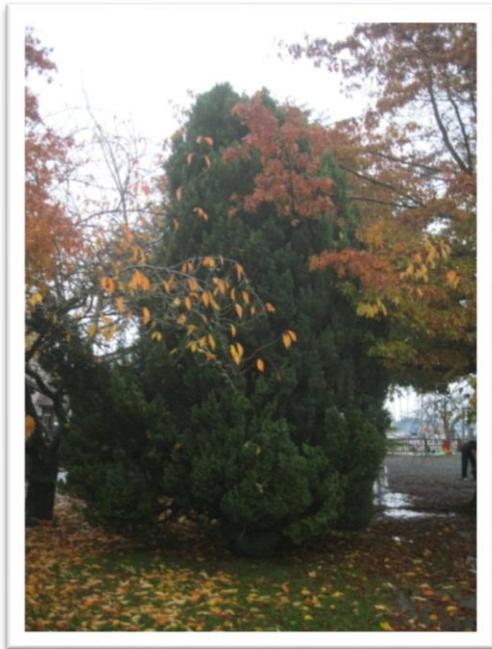
Photo 8: The two conifers near the public washroom (this photo and the next) provide a formal backdrop to the cenotaph and flagpole (see photo 14), and block the view of the washroom from the cenotaph area. However there is a concern that they excessively shade the washroom thus possibly making people uncomfortable about using the facilities at certain times of the day.

Photo 9: Second conifer near public washroom. Perhaps given their importance for the cenotaph area, the two conifer trees could be pruned to take on a more formal, columnar appearance, while allowing more light into the washroom area.
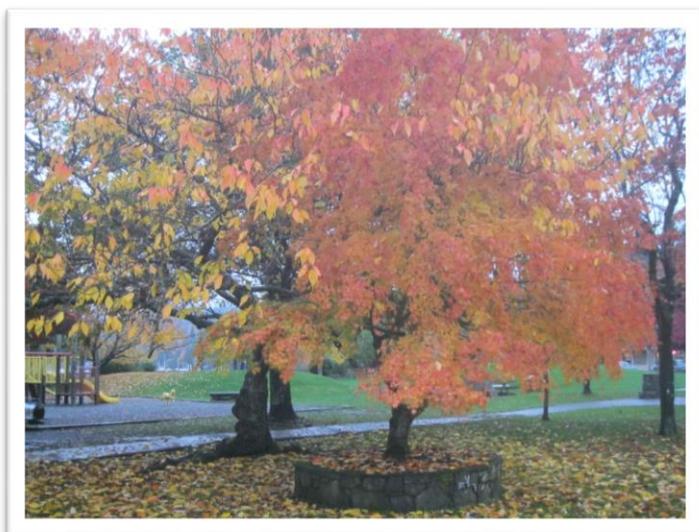
Photo 10: Lovely fall colour in the park.

Photo 11: This tree at the east end of the plaza area should be removed – the tree isn't particularly healthy, the position of the tree infringes on pedestrian circulation, and presents a tripping hazard.

Photo 12: Public Plaza objective: maintain an open central corridor, while encouraging the trees along the perimeter. This is a great spot for cultural activities and performances. Plant low growing woody shrubs in the containers to discourage people from using them as chairs and tables.
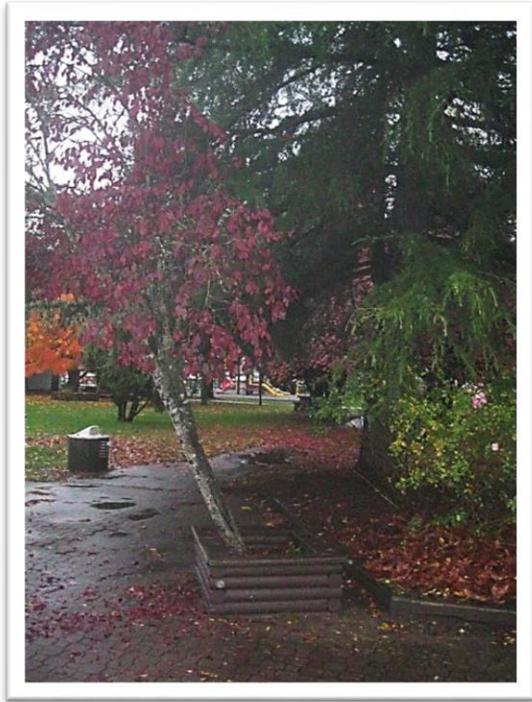
Photo 13: This suppressed tree should be removed. It impedes pedestrian movement and the style of container does not match with the circular concrete containers elsewhere in the plaza area.

Photo 14: Cenotaph area: A more formal style of pruning is warranted in this area- especially for the trees immediately behind the war memorial and the flag pole. Annual top-dressing with sand or pea gravel will contribute to better drainage in this area so that people don't get wet feet on Remembrance Day. I recommend consulting with local veterans for their ideas.

Photo 15: The trees in the containers along the edges of the plaza generally look healthy, but they do need a yearly top-dressing of leaf mulch or well-rotted manure. Also an annual sprinkling of lime and fish-fertilizer for micro-nutrients would be beneficial. Standard pruning is recommended for symmetry and shape.

Photo 16: These seats are strong and well built, but they need to be painted a better colour! Bright fire Engine red (similar to the official government wharf colour) would nicely complement the colours of the park as provided by the trees and the grass. Lay down crushed gravel down beneath the benches to provide better soil drainage and eliminate the puddling.

Photo 17: Water fountain in disrepair. It should be fixed because every good park deserves a good water fountain.

Photo 18. A rather unattractive plastic garbage receptacle. Using the same foundation, build a new attractive wooden top.

Photo 20: A beautiful park encourages inspired artwork!