
Assessment of trees > 20cm DBH and protected species located at 310, 320, & 360 Hunt Rd.

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Purpose:

Inventory and assess any trees greater than 20cm DBH (diameter at breast height) and any protected to determine the trees suitable for retention and those which must be removed as a result infrastructure conflict or poor condition.

Site Description:

At the time of assessment, the 0.75 ha (approx.) site was heavily vegetated with predominantly scrub plum and hawthorne trees and shrubs < 20cm dbh. The site appeared to be relatively wet with invasive Himalayan blackberry present in several large areas. There were small trails throughout the brush with evidence of human activity and garbage. A few paths had been cut through the vegetation recently, presumably for the purpose of surveying lot boundaries.

Adjacent to lot 336 to the east is an uncategorized lot, presumably a right of way owned by the City of Courtenay. This undeveloped land continues to the northeast, south of lot 365. This 'lot' is addressed as 385 on the City of Courtenay iMap however no lot boundaries are present.

Methods:

After a review of the general site plans a site assessment was performed on April 29, 2020. The site was walked and trees > 20cm DBH any protected species were identified and inventoried. For each tree the following data were collected: Species, tag #, DBH, health/condition, location, Action, and any general notes about condition.

The four recorded recommended 'Actions' for each tree are defined as follows:

Remove – A tree that due to its health/condition or conflict with proposed construction is not able to be retained without suffering irreparable harm and/or posing a future hazard to people and property.

Retain- A tree that is suitable for retention because it is of adequate health and stability and cannot be reasonably foreseen to be in conflict with current construction plans.

Monitor- A tree that due to proximity to proposed construction activities may necessitate removal depending what is determined during excavation

For trees to be retained a critical root zone (CRZ) and root protection areas (RPA) were calculated.

Results:

A total of 3 trees greater than 20cm DBH were identified on site. Additionally, five trees were identified on adjacent properties that may be affected by construction activities (Table 1). Of the five trees identified on adjacent properties, four were the protected species Western White Pine (*Pinus monticola*) located on 'lot' 385. The remaining adjacent tree is a variety of ornamental Cherry (*Prunus serrulata*) located on lot 305. An additional three trees greater than 20cm DBH were identified on the unclassified right of way to the southeast of lot 336.

Protected species and trees greater than 20cm DBH located at and adjacent to 310, 320, & 336 Hunt Rd. Courtenay BC.							
Tag #	Species	DBH (cm)	Health/Condition	Action	Rational	CRZ (m)	RPA (m)
1	Cherry (ornamental)	26	Good	Monitor	Adjacent	3.12	1.8
2	Red alder	28	Good	Remove	In Conflict	N/A	N/A
3	Red alder	21	Good	Remove	In Conflict	N/A	N/A
4	White pine	35	Good health. Multiple tops. Possibly previously topped.	Monitor	Adjacent	4.2	2.1
5	White pine	24	Good health. Multiple tops. Possibly previously topped	Monitor	Adjacent	2.88	1.8
6	White pine	25	Good health. Possibly previously topped.	Monitor	Adjacent	3	1.8
7	White pine	27	Good health. Multiple tops. Possibly previously topped	Monitor	Adjacent	3.24	1.8
8	Red alder	30	Good	Remove	In Conflict	N/A	N/A
9	Red alder	25	Declining top	Remove	Poor condition	N/A	N/A
10	Red alder	25	Dead	Remove	Dead	N/A	N/A
11	Red alder	22	Declining top	Remove	Poor condition	N/A	N/A

All of the trees greater than 20cm DBH on site were Red Alder (*Alnus rubra*). None of these trees were deemed suitable for retention as they were 'In conflict' with proposed infrastructure.

Discussion:

The three Red alder trees identified on site (2,3 & 8) are in direct conflict with planned infrastructure and cannot be retained. Tree #1 appears to be very close to the property line of lot 310. This tree has a critical root zone of 3.1m and minimum root protection area of 1.8m. With the 0.7m landscape buffer at the rear of the property, this tree will still require a minimum 1.1m of root protection during construction activities.

The four Western white pines (4,5,6,7) located on 'lot' 385 are of moderate concern given the current location of the adjacent proposed entrance road. These trees have critical root zones of 4.2, 2.9, 3.0, and 3.25m respectively with minimum root protection areas of 2.1 and 1.8m. This root protection area will be likely impossible to maintain with the excavation and grading necessary with the current plan. If the city requires the retention of these trees then a change in development plans will be required to preserve the root protection area during construction. It should be noted that given the orientation and spacing of these trees that they were likely planted and not volunteers. All four western white pine also have regrown tops at the same height, suggesting that they were manually topped early in their life. With the regrown tops, and basal stem defects, these trees are only of satisfactory quality for retention.

At the time of writing it was unclear what the intended outcome was for the uncategorized 'right of way' to the southeast of lot 336. It was also understood that some form of upgrade was to occur to Tunner Drive. Until the type and extent of road upgrade is established it cannot be determined if or how the trees in this area will be affected by construction activities. The trees identified on this right of way were young red alder and were generally in poor condition with declining tops. Red alder are short lived pioneer species and given their already poor condition would be unsuitable for retention immediately adjacent to a new development. It would be more desirable to landscape this area and replant with more suitable species for long-term retention and aesthetics.

Recommendations:

Once development plans are finalized the root protection area for any trees being retained should be established based on the specifications in Table 1. Prior to clearing and grading these RPA should be established on site with a semi-permanent barrier. A suitable material orange 'snow fence' or safety fence in a 36 or 48" height and erected with sturdy posts that will not be blown over by wind. This will provide a highly visible root protection area that shall not have material removed from, piled in or heavy equipment moved through, or parked on. This barrier should remain in place until all major construction is complete so that any building materials or equipment are not parked or stored in the root protection area. If any compromises to the root protection are agreed upon through the development planning, a certified arborist should be present to supervise any excavation that occurs within the otherwise minimum root protection area.

Continued monitoring of the remaining trees should continue throughout development and for the first years after development. The heat island effect of the new asphalt parking lot adjacent to potentially retained trees will dramatically change micro climate and soil moisture regime. Retained trees will continue to adjust to the environmental changes on site and some decline or mortality is possible.

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310, 320 & 360 Hunt Rd

Trees > 20cm DBH

Legend

 Trees > 20cm DBH and protected species



Google Earth

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