



Ministry of Forests, Range



Wildlife Tree Committee of British Columbia

Bulletin to WDT Assessors – July 7, 2008 Hazardous Top Defect

This bulletin clarifies the description of the hazardous top defect indicator that assessors should be using when conducting tree assessments. In 2008 the Wildlife Tree Committee (WTC) provided clarification to the dangerous tree criteria for the hazardous top defect in response to queries about how to interpret defective tops. This bulletin provides assessors with a clearer description of this defect category.

Wildlife/Danger Tree (WDT) Assessors should review and implement the following revisions to Tables 4, 4A and 5 during tree assessments. Revisions to course manuals and field cards can be viewed by visiting the website of the WTC (www.for.gov.bc.ca/hfp/values/wildlife/WLT/index). This bulletin serves as a standard of practice addendum and replaces earlier versions of the hazardous top defect description in the WDT assessor's Course modules for Harvesting/Silviculture, Parks and Recreation, and Wildland Fire.

Rationale for revisions:

In previous versions of the course modules the criteria for a hazardous top inferred that only tops that were secondary tops should be considered dangerous. While the glossary linked secondary tops to top defects of all types, the tables in the manual and the field cards (FS502) did not provide this clarity. Therefore, the tables were revised as indicated to reference defective tops of which a secondary top is one of numerous examples. In addition, the term hazardous top was defined in the glossary of course manuals as follows:

Hazardous Top (HT): *A suspect or defective top section (live or dead) of a tree that may be hazardous because of visible structural weakness, especially if there is evidence of decay or cracking. The defect length is defined by the point of visible stem deformation (stem swelling or goiter, spike, multi-tops or candelabra, fork, kink or other such deformity) or stem damage that makes the top prone to failure.*

REVISED clarification to the Dangerous Tree Criteria for a Hazardous Top (July 2008)

The following table excerpts reflect the revised version of tables 4, 4a and 5. The determination of whether a tree has a HT is based on the presence of a defective top, of which a secondary top is one of many examples.

Table 4. Dangerous Tree Criteria for Level 2 Disturbance Activities

Defect Category	Species Group			
	Douglas-fir, larch, pines, spruces	Western redcedar, yellow cedar	Hemlock, true firs	Broad-leaved deciduous
Hazardous top (HT)	<ul style="list-style-type: none"> • Class 2 to 5 trees: Defective Top (any size: e.g., secondary top) where structural weakness is evident; OR • Class 4 and 5 trees: defective top (e.g., secondary top) >30% of tree height 	Class 2 to 5 trees: Defective Top (any size: e.g., secondary top) where structural weakness is evident	<ul style="list-style-type: none"> • Class 2 to 5 trees: Defective Top (any size: e.g., secondary top) where structural weakness is evident; OR • Class 4 and 5 trees: defective top (e.g., secondary top) >20% of tree height 	<ul style="list-style-type: none"> ▪ Class 2 to 5 trees: Defective top (any size) as a fork, co-dominant or multiple stem where structural weakness is evident; OR ▪ Where a dead top is >20% of the tree height

Table 4a. Dangerous Tree Criteria for Level 3 Disturbance Activities

Defect Category	Species Group			
	Douglas-fir, larch, pines, spruces	Western redcedar, yellow cedar	Hemlock, true firs	Broad-leaved deciduous
Hazardous top (HT)	<ul style="list-style-type: none"> • Class 2 to 5 trees: Defective Top (any size: e.g., secondary top) where structural weakness is evident; OR • Class 4 and 5 trees: defective top (e.g., secondary top) >30% of tree height 	Class 2 to 5 trees: Defective Top (any size: e.g., secondary top) where structural weakness is evident	<ul style="list-style-type: none"> • Class 2 to 5 trees: Defective Top (any size: e.g., secondary top) where structural weakness is evident; OR • Class 4 and 5 trees: defective top (e.g., secondary top) >20% of tree height 	<ul style="list-style-type: none"> • Class 2 to 5 trees: Defective top (any size) in the form of a fork, co-dominant or multiple stem where structural weakness is evident; OR ▪ Where dead top >20% of tree height

Table 5. Danger Tree Assessment Process for Level 4 Disturbance Activities

CLASS 2 CEDAR TREES ARE SAFE IF THEY FIT THE FOLLOWING CRITERIA:	
Defect Category	Western Redcedar, Yellow-cedar Low Failure Potential
Hazardous top (HT)	Defective Top (e.g. secondary top, spike) <30% of tree height with no evidence of decay, cracking, failure or other structural weakness

A series of photographs on the attached page illustrate a variety of defective tops that would be classed as a “hazardous top”. Assessors must then determine whether the defect length of the HT can reach the work site (the target) and if there are compromising signs of structural weakness when rating the top as dangerous or safe.

<p>Secondary top at kink</p>	<p>Secondary top – weak at break</p>	<p>Secondary top – primary top recently failed</p>
<p>Secondary top – dead spike</p>	<p>Fork top with included bark at stem union</p>	<p>Candelabra top with numerous spikes</p>
<p>Top dieback with dead fork top</p>	<p>Spike top Cedar</p>	<p>Stem damage – fork stem recently failed</p>