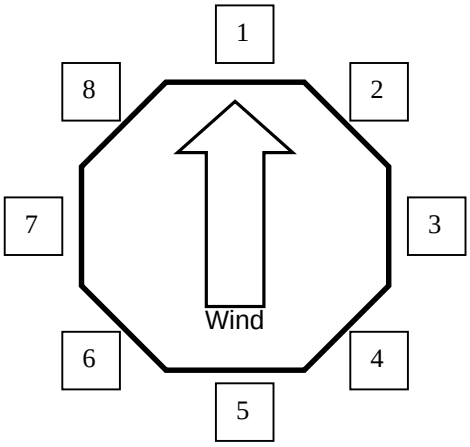
Determining Boundary Exposure ratings for the Wind Exposure Index

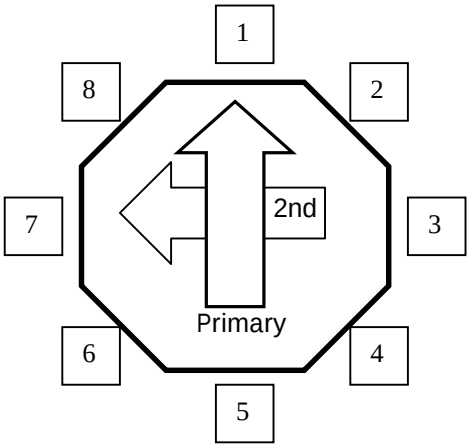
The diagram on the right represents an octagonal cutblock surrounded by a forest edge (arrow indicates direction of wind). The following are the classifications and scores used for calculating exposure to one wind direction for numbered boundary segments in the diagram:



1 = windward	score: 5
2 = windward diagonal	score: 4
3 = parallel	score: 3
4 = lee diagonal	score: 2
5 = leeward	score: 1
6 = lee diagonal	score: 2
7 = parallel	score: 3
8 = windward diagonal	score: 4

To determine the total WEI score for an existing or proposed boundary, add the scores from the primary and secondary windthrow directions observed in the area. For the example above, you must calculate a second set of scores for each segment based on the next most common direction of windfall.

EXAMPLE:



1 = windward + parallel	score: 5+3=8
2 = wind diag + lee diag	score: 4+2=6
3 = parallel + leeward	score: 3+1=4
4 = lee diag + lee diag	score: 2+2=4
5 = leeward + parallel	score: 1+3=4
6 = lee diag + wind diag	score: 2+4=6
7 = parallel + windward	score: 3+5=8
8 = wind diag + wind diag	score: 4+4=8

Wind Exposure Index was developed by Terry Rollerson, Golder Associates Ltd., and is described in “Riparian Windthrow – Northern Vancouver Island” by Rollerson and McGourlick (2001), In Proceedings of the Windthrow Researchers Workshop, Richmond, BC. See: www.fcsn.bc.ca/Proceedings/windthrow.pdf

Example by W. Beese, Weyerhaeuser Coastal Group.