

**BC Timber Sales
Stuart-Nechako Business Area**

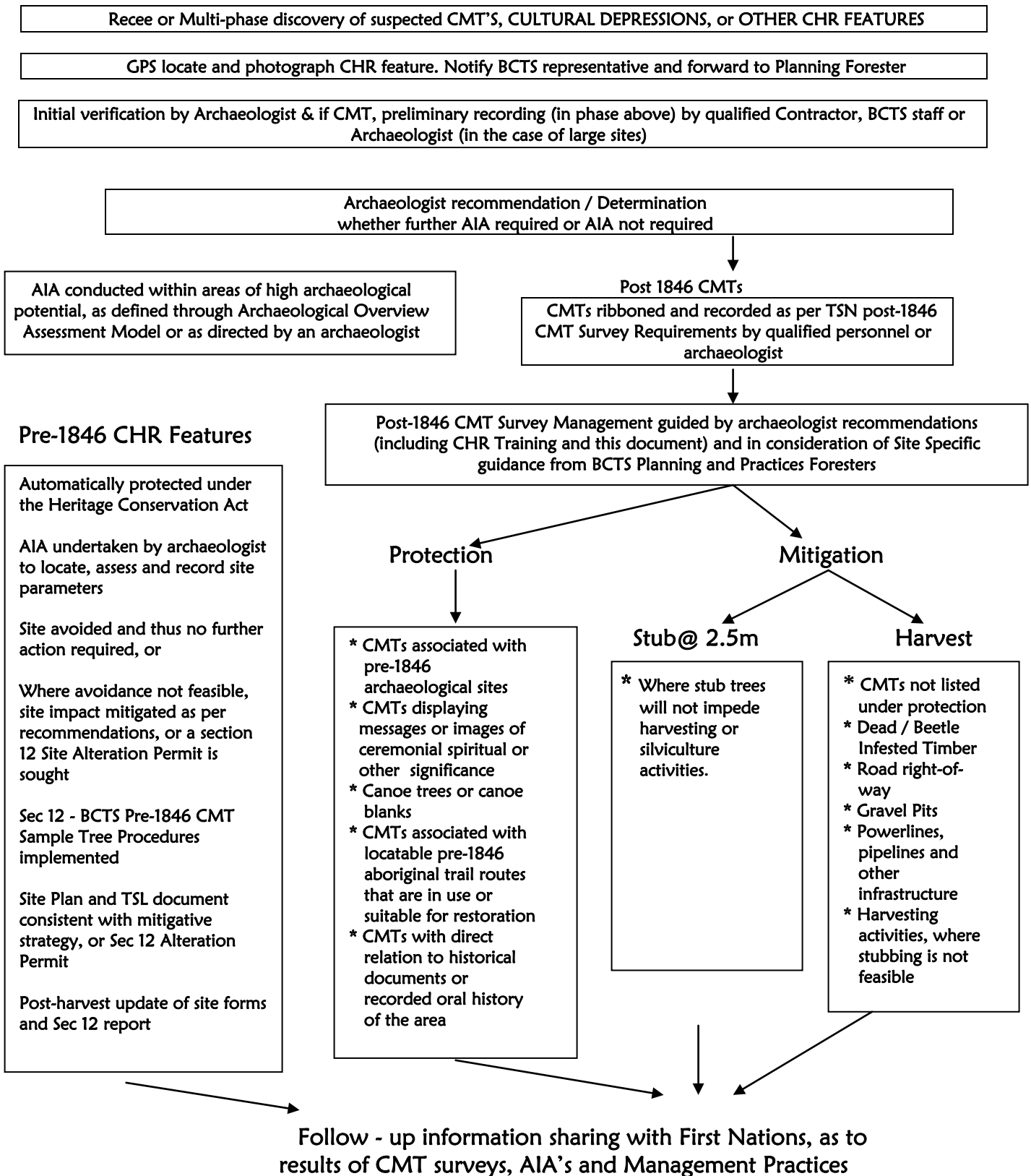


Planning Procedures

**TSN Procedures for the Management of
Cultural Heritage Resources**

Last Updated June 26, 2017

BC TIMBER SALES (BCTS) PROCEDURE FOR THE MANAGEMENT OF CULTURAL HERITAGE RESOURCES, April 2016



BCTS Post-1846 CMT Surveys may only be conducted by qualified personnel, possessing sufficient knowledge in the identification and assessment of Culturally Modified Trees (CMTs). Demonstration (via training records) of CMT training will generally be required.

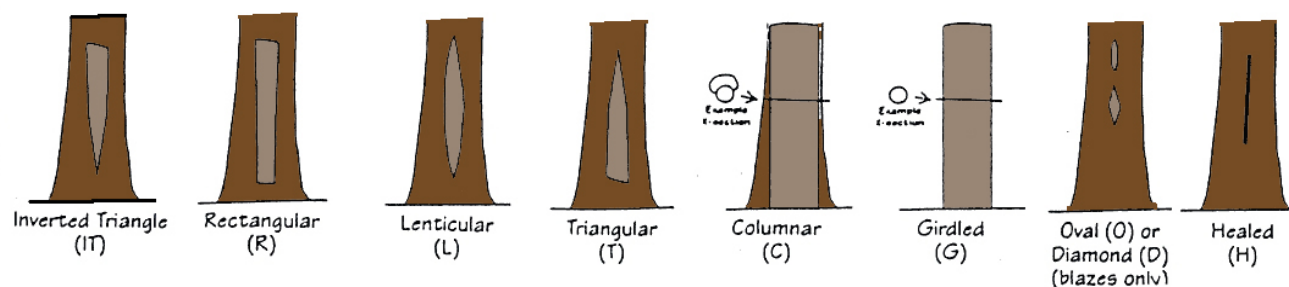
WHY ARE CULTURALLY MODIFIED TREES IMPORTANT AND WHY DO WE RECORD THEM.

- CMT's are protected under the Heritage Conservation Act (pre-1846) and are managed as an objective set by government under FRPA (post-1846), via the cultural heritage resource objective (FPPR 10).
- They have cultural value and are dateable markers of traditional forest sustenance use.
- They are evidence of physical use and occupancy for the purpose of carrying out a practise integral to the distinctive culture of the aboriginal society and may play a role in determining aboriginal rights or title or in treaty or land use negotiations.
- They may have connections to archaeological sites, oral histories, or other traditional use sites.
- When studied scientifically they may be used to determine: trail and travel corridors, travel patterns, settlement patterns, low years of other food supplies, population densities or fluctuations.
- They have interpretative values for cultural tourism, cultural education of First Nations youth and to educate non-native public about First Nations cultures and traditional land use.

Once Post-1846 Culturally Modified Trees are Assessed Where do the Reports Go

- One color hardcopy of the CMT report (block specific) is submitted with the TSL deliverables. This should include:
 - Post-1846 CMT Photo/Age Sheets
 - CMT Recording Form
 - An SP map with the gps location of identified CMT's (sketch map clumps, where large distributions occur).
- One Adobe Acrobat file (pdf format) of the above report (Block specific).
- BCTS contract coordinator to distribute CMT Reports as follows:
 - Copy of digital Pdf Report file to TSL directory
 - Copy of digital PDF Report file to Planning Forester for Archaeologist (inclusion in AIA) and/or Information Sharing with appropriate First Nation.

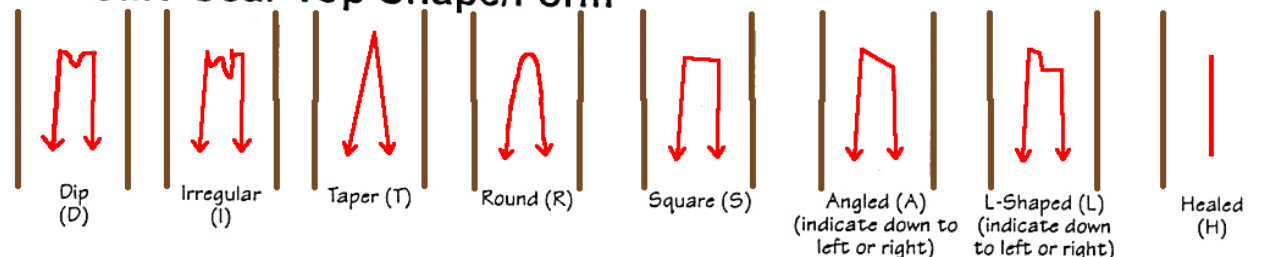
CMT Scar Shapes



Any Scar which does not conform more or less to any of these shapes should be called "irregular (I)" and should be described in comments and/or sketched.

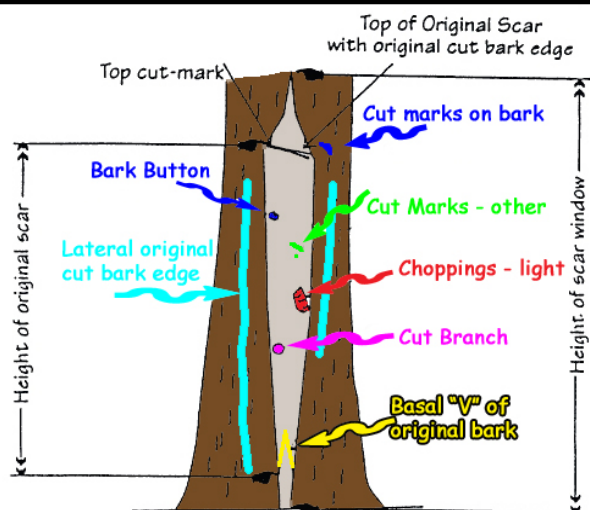
Shape describes overall shape of the scar window. The shape/form of scar top can vary highly. Describe top separately (see illustrations below).

CMT Scar Top Shape/Form



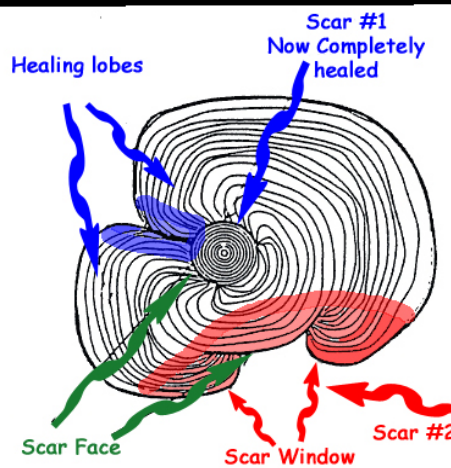
Top Shape describes either Top of Original Scar or Top of Scar Window, depending on overall morphology of scar.

Only use Irregular description if no other shape describes scar top.



Examples of some features

Refer to next page



Example cross-section of CMT stripped twice

Post-1846 CMT PHOTO/AGE SHEET

BC Timber Sales POST – 1846 CMT SURVEY REQUIREMENTS

- Step 1.** Count & identify all CMTs (mark with yellow flagging & #). GPS all CMTs unless several are adjacent one another and record point as multiple CMTs (i.e. CMT 1- 4).
- Step 2.** Determine CMT sample trees on a judgmental basis trying for a representative sample (evenly distributed across the site). This includes sampling across the range of CMT diameters & ages within the block. Fully sample the first 10 CMT's (to ensure an adequate sample of small CMT sites). Afterwards proceed with a sample intensity of 1 out of every 5 (20% objective) CMT's to a max of 30 sample trees on a specific cutblock (whichever is the lesser).
- Step 3.** Record CMT sample trees (including a digital photo of scar) on the photo/age sheets.
- Step 4.** Complete the CMT Record Sheet (Traces Archaeological Research and Consulting Ltd. form Feb.26, 1998) for all CMT sample trees.
- Step 5.** Complete a final CMT map 1:20 000 or larger (SP or harvest plan base).



Tape or glue Photo here

Blk / CMT Site _____ CMT # _____

Type: Post-1846 Cambium stripped

Species: Lodgepole Pine

Age Data

Height of core _____ cm

Annual rings pith to outer bark _____ + _____ (corr.) = _____

Annual rings pith to scar _____ + _____ (corr.) = _____

Year of tree scar _____

GPS location Lat. _____ Long. _____ (if applicable)

Guidelines—CMT Record

Ver. Feb 26, 1998

Use two lines/rows on form per tree.

- First line indicates location of the tree (*e.g. Location 25m @ 36 deg. From POT A.L8 or 25 m @ 26 deg. From previous CMT #1*)
- If locations have been mapped and are reported elsewhere, indicate where they are reported on the first line of form.
- Enter something in every field so that it is clear attribute was considered during recording.

CMT #	Enter unique number or letter designation for tree. Number or letter should also be written on flag or tag and placed on tree itself.
Tree Spcs.	Enter tree species: pine (Pl); spruce (SP); birch (E_); aspen (At); balsam (B)
Dead/Alive	Enter “D” or “A”. If fallen and dead, enter “Df”
CMT Type	Enter type of modification—one or more of following: Stripping (St); Chopping (CP); Blaze (Bl); Cut Branch (CB); or Other (O), if “Other”, then describe in comments on back side of form.
No. of Scars	Enter number of definite scars visible. If there are additional possible scars or healed scars, enter the number of such scars after a “+” sign followed by a “?”. (<i>e.g. 2+2?</i> Means there are two definite scars and two additional possible scars). Each definite scar is subsequently described on a separate line of the form.
Scar #	Enter consecutive unique number for each scar on tree. Generally earliest scar is Scar # 1.
Scar Morph	Overall Scar Morphology. Put only one of “W”, “OT”, or “H” W (Window) means scar has healed to such an extent that the original scar top is not visible. All subsequent measurements of length, and descriptions of shape should be based on scar window. OT (Original top) means original top of scar is visible. All subsequent measurements of length, and descriptions of shape should be based on top of original scar. H (Healed) means scar is healed and closed.
Side of Tree	Enter bearing (in degrees) for direction scar is facing. If more than one definite scar, separate bearings with a slash. Indicate declination used for site in bottom right-hand corner of sheet.
Angle of slope	Enter angle of slope measured with clinometer. Indicate whether degrees or percent.
Dir. of slope	Enter direction (N, NE, E, SE, S, SW, W, or NW) for downward direction of slope along fall-line.
DBH	Diameter of tree at breast height (cm). Use diameter tape. Measure circumference and indicate on form if a diameter tape is unavailable.
Hght. Top of scar	Enter height from ground to top of scar window or original top of scar if visible (cm)
Hght. Btm of scar	Enter height from ground to bottom of scar window (cm)
Lgth scar or scar window	Enter total length (L) of scar or window (cm)
Wdth scar or scar window	Enter maximum width (W) in centimetres of the scar window. If columnar or girdled measure around scar (<i>e.g. circumference arc</i>)
Depth of scar	Enter depth of scar or thickness of healing lobe depending on scar morphology.
Scar shape	Enter general shape of scar using terminology on attached sheet.
Top shape	Enter general shape of top of scar or scar window using terminology on attached sheet.
Cut-Mark (top, bottom, other)	Enter the number of cut marks visible at the top (t), bottom (b), and/or other (o), <i>e.g. t=1, b=1, and o=2</i> means there is one cut-mark at the top, one at the bottom and one in the middle of the scar. Do not confuse cut-marks (which are made with a a knife) with choppings (which are made with an axe).
Basal “V”	Enter “Y” or “N” in column cell if a basal, inverted “V” of original bark is present at bottom of scar.
Bark button	Enter “Y” or “N” in column cell if small “buttons” of original bark are present on the bases of branches in the scar.
Cut branch	Enter “Y” or “N” in column cell if cut branches are present in the scar, indicate number of cut branches.
Chops	(heavy, medium, light) Indicate relative amount of chopping in scar if present.
Cored	Enter “Y” if the tree was cored and “N” if not. In comments indicate any relevant comments about the cores concerning quality etc. Store core in a taped-up straw and make sure straw is labelled with Site #, CMT #, and Date.
Hght of core	Enter the height at which the core(s) was taken in centimetres and measured on the scar side of the tree.
Photos	Enter “Y” if photos were taken and “N” if not. In comments indicate Person, Camera #, and Roll #.
Comments	Use back of sheet to write any additional comments about the tree. Comments should include if necessary: notations to clarify any of the information entered in the above fields; comments on any cores removed; notations about unique features present on the scar or tree; or any other relevant comments. If appropriate, draw sketches of scar on back or on separate sheet. If on separate sheet, indicate in comments that sketch was drawn and attach sketch to form. Sketches are very useful.

CULTURALLY MODIFIED TREE (CMT) RECORDING FORM

CMT# _____ PROJECT _____ DEVELOPMENT AREA _____ DATE _____ RECORDERS _____

[illegible]

PUT INDICATED MEASUREMENT OR NOTATION (In brackets) IN BOX IF FEATURE IS PRESENT ON SCAR
USE ONE LINE PER SCAR
REFER TO GUIDE FOR EXPLANATIONS AND ILLUSTRATIONS

DECLINATION: _____ deg. E. _____

WRITE ADDITIONAL COMMENTS ON BACK FOR ANY OTHER NOTABLE ATTRIBUTES OF SCARS

PAGE _____ OF _____ PAGES FOR SITE _____