

CULTURAL HERITAGE MONITORING: RESULTS, PERSPECTIVES AND OPPORTUNITIES FOR IMPROVEMENT

*Prepared by: Steve Lehnert, MF, RPF,
Lisa Levesque, M.Sc., A.Ag., Carrie Carty and
Peter Bradford, RPF*

The objective of the British Columbia Forest and Range Evaluation Program (FREP) is to evaluate forest and range practices under the *Forest and Range Practices Act* (FRPA) to determine whether current practices are meeting government's objectives. The 2009 field season was the second year of piloting the Cultural Heritage Resource (CHR) stewardship monitoring protocol. The pilot indicators and protocol, designed through collaboration with several First Nations and resource agencies, have been established to evaluate the success of forest management strategies in conserving, and where necessary protecting, previously identified First Nation cultural heritage resource values, including traditional use sites. A key goal of the CHR work under FREP is to bring the required collective expertise together from First Nations, government and industry.

A key purpose of FREP extension notes is to inform resource management professionals of the results of management practices. This enhances the knowledge base on which professional advice and accountability are based.



*Stubbing of CMTs along cultural trail, Fort St. James,
photo: Carl Pollard*

FREP

EXTENSION NOTE #11

June 2010

FREP CULTURAL HERITAGE RESOURCE STEWARDSHIP MONITORING PILOT SCOPE

The *Forest Act* describes a cultural heritage resource as “an object, a site or the location of a traditional societal practice that is of historical, cultural or archaeological significance to British Columbia, a community or an aboriginal people.”

The objective set by government, under FRPA, for cultural heritage resources is to conserve, or, if necessary, protect cultural heritage resources that are: (a) the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and (b) not regulated under the Heritage Conservation Act.

Guided by the objectives set by government for the cultural heritage resource value under FRPA, the goal of CHR stewardship monitoring is to evaluate forest practices in order to answer the question:

Are cultural heritage resources being conserved, and when necessary protected for First Nations' cultural and traditional use as a result of forest practices in British Columbia?

The *Forest Planning and Practices Regulation* (FPPR) provides default forest practices expected to maintain resource values identified under FRPA. Unlike other resource values, there are no default FRPA practice requirements for CHR values. As a result, forest tenure holders develop their own set of results and/or strategies for CHRs. However, the FPPR does identify key cultural heritage resource factors for consideration in the development of Forest Stewardship Plan results or strategies. These factors are:

The FREP Mission:

To be a world leader in resource stewardship monitoring and effectiveness evaluations; providing the science-based information needed for decision-making and continuous improvement of British Columbia's forest and range practices, policies and legislation.
<http://www.for.gov.bc.ca/hfp/frep/index.htm>



- the relative value or importance of the resource to a traditional use by an aboriginal people,
- the relative abundance or scarcity of the particular cultural heritage resource,
- the historical extent and traditional use of the cultural heritage resource by an aboriginal people,
- the potential impact on government granted timber harvesting rights of conserving or protecting the resource, and
- Options available to mitigate the impact of forest practices on a cultural heritage resource.

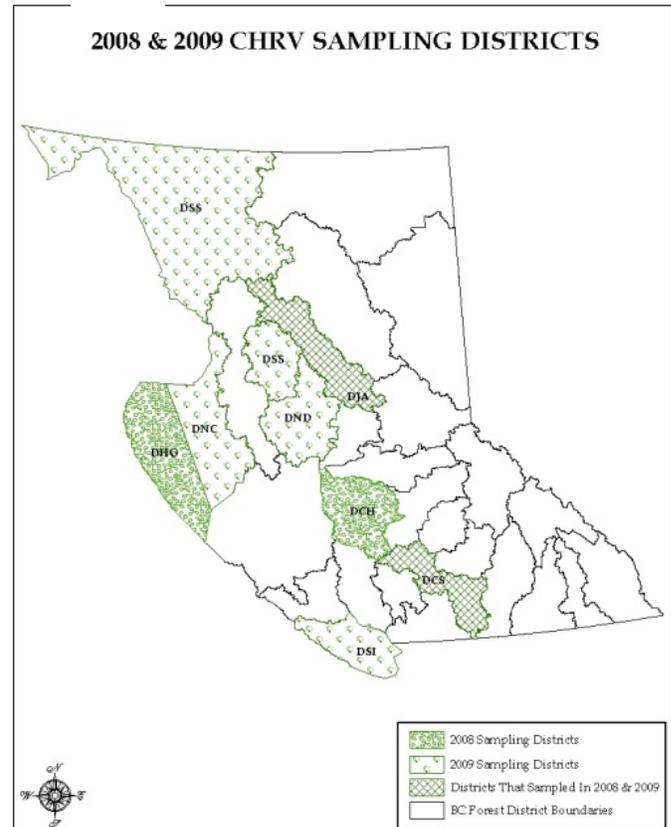
A FREP working group advises on the scope and direction of CHR stewardship monitoring. Consistent with previous years, the working group is an evolving, dynamic group of representatives from First Nations, First Nations organizations and government agencies. Field data is collected using a combination of random and targeted samples, at the district-level, by Ministry of Forests and Range (MFR) staff, often in conjunction with First Nations, First Nations’ representatives, and the forest industry.

In developing the CHR monitoring protocol, a broad set of CHR categories identifying common province-wide indicators have been developed. In recognition of the unique perspectives held by individual First Nations, the protocol also accommodates opportunities to identify local cultural values not included in the provincial pilot. As the CHR monitoring project is still in pilot, the protocol is considered a living document, subject to continued improvements as new partnerships with First Nations and industry are created and new knowledge is gained.

The involvement of First Nations in the development of the CHR stewardship monitoring framework, protocol and indicators has also proven valuable for improving relationships and enhancing trust between First Nations, the provincial government and the forest industry. As reported in extension note #6 from November 2009, (http://www.for.gov.bc.ca/ftp/HFP/external/!publish/FREP/extension/CHR_Extension_Note_06.pdf), CHR stewardship monitoring has helped enhance skills and knowledge in local First Nation communities and provided an improved awareness of First Nations cultural values amongst industry and government natural resource management professionals. CHR monitoring has revealed successes and benefits, such as improved relationship building, that go well beyond site-level assessment and reporting.

CHR Pilot Project Scope

Thirty-four cutblock-level field assessments were completed, within six forest districts, during the 2009 field season, compared to 20 evaluations completed within in four districts the previous year. Twenty-five First Nations territories are associated with the pilot sampling sites to date. Contacting, informing and where possible involving First Nations when monitoring outcomes in their territories, is an important FREP goal.



During 2009, a total of 106 cultural heritage sites and features were sampled within or next to cutblock boundaries, in contrast to 58 in 2008. While there is significant consistency between the findings of the two pilot years, there is also some variability of results due to refinements in the field protocol, the number of assessments, and wider variety of CHR values held by participating First Nations in 2009. Table 1 shows the types of CHR sites or features evaluated over the last two years.

Table 1: Types of CHR sites or features

CHR site or feature	# encountered in 2008 sampling	# encountered in 2009 sampling
Stand of culturally modified trees (CMTs)	23	37
Individual CMT	5	18
Cedar Bark Strip Area	Not recorded	10
Other (Trapper's house set, snake fence, campsites, logged CMTs, cache pit)	Not recorded	10
Cultural trail w/associated features	Not recorded	9
Archaeological/ Heritage Site	4	8
Cultural trail (designated and undesignated)	10	8
Traditional Use Site/ cultural plant site	1	5
Den (bear, cougar, coyote, other)	2	1
Monumental cedar (individual or stand)	8	0
Total	58	106

2008/2009 Findings and Results

Over the past two years, field staff observed a number of successful strategies to protect or conserve CHRs. Table 2 shows a summary of the effectiveness of management practices in maintaining cultural values at the cutblock-level. These were qualitative assessments that considered site-specific recommendations, opportunities and operational limitations.

Table 2: Overall cutblock level results

Extent of opportunities to improve CHR site-level management	2008	2009	Combined 2008-2009 % (weighted)
Significant	17%	16%	16%
Limited to moderate	33%	38%	36%
Limited to none	50%	47%	48%

Table 3 shows strategies used to manage cultural features that were found during site assessments.

Table 3: CHR Management Strategies

Management Strategy Used	Total Sites 2008	Total Sites 2009	Total % 08/09
Stumped (some/all) CMT(s) above scars	10	18	17.5
Conserve in protected or retention area	8	12	12.5
Modified block boundary to protect the feature	10	9	12
Multiple strategies	10	9	12
None (no active management)	9	8	11
Other	0	15	9
Retained feature with no buffer	2	7	5.5
Retained a buffer around site/feature	3	5	5
Completed crown or stand modification	0	6	3.75
Altered silviculture activity	0	6	3.75
Left standing where safe to do so	0	6	3.75
Dated the feature	0	5	3
Date and cut CMT	2	0	1.25
TOTAL	54	106	100

The most common strategies identified during 2008 and 2009 were feature/site avoidance and stumping of some or all CMTs above cultural markings/scars.

Over two years of piloting, approximately 50 per cent of CHR assessments showed no evidence of damage to individual sites or features. The 2009 data reveals that 54 per cent of evaluated sites and features showed no evidence of damage compared to approximately 46 per cent found in 2008. Twenty-one per cent of the cultural resource sites evaluated in 2009 found damage attributed to harvesting activities, with an additional 8 per cent of sites with damage from activities such as road building, or post harvest influences such as wind-throw and pile burning damage. Of all sites evaluated in 2009, 12 per cent had permanent damage and/or were rendered unsuitable for continued use. The 2009 data revealed 17 sites/features with recognized cultural trails. Of these trails, approximately 50 per cent were fully functioning post harvest. The other trails had evidence of impact through activities such as road building (e.g., section of trail removed), cross trail yarding (e.g., trail-bed damage or trail blocking debris), planting or windthrow.

From the 2009 samples, alternative management strategies or practices were identified for 26 sites/features that could have been used to improve the protection or conservation of CHR values. These suggestions, along with management strategies that proved to be effective during both the 2008 and 2009 field seasons, are described in the following section.

OPPORTUNITIES FOR IMPROVEMENT IN THE MANAGEMENT OF CHR VALUES

The results of CHR value monitoring show both positive outcomes and opportunities for improvement.

Pre-Harvest Planning:

From a cultural heritage perspective, successful pre-harvest planning involves resource value identification, description, strategy development and communication. The following activities are specific pre-harvest planning actions that can help ensure successful CHR management:

- Using professional archaeologists and (or) other trained professional cultural resource management specialists and established provincial standards to assess cultural heritage resource values.
- Knowing and understanding available information (e.g., Preliminary Field Reconnaissance, Archaeological Impact Assessment, Site Plan, Forest Stewardship Plan recommendations and (or) requirements).
 - Knowing, understanding and documenting local First Nations preferred management practices and outcomes through direct contact with local First Nations (direct contact is often the only way to obtain detailed cultural and historic information).
 - Locating, assessing and determining the significance of individual and (or) multiple features on a site-specific basis.
 - Mapping and describing features (written, photos) to aid in identification during forest management activities.
 - In harvest design:
 - a. Avoiding features by excluding from harvest areas where practical (e.g., retaining in riparian management areas, wildlife tree patches and (or) outside of harvest area boundaries).
 - b. Providing higher levels of post-harvest retention.
 - c. Providing an adequate buffer to protect features, recognizing wind-firmness and uphill hazards such as slope stability.



Cache Pit: Vanderhoof, photo: Lisa Levesque

Harvesting and Road Building:

From a cultural heritage perspective, successful harvesting and road building involves resource value identification, description, management planning and communication. The following harvesting and road-building actions can help ensure successful CHR management:

- Holding pre-harvest briefings with the people conducting the harvesting (or) road building:
 - Describing management strategies and expectations; known hazards and safe work procedures.
 - Providing a harvest map with cultural features identified.
 - Describing how cultural features have been marked (e.g., paint, ribbon — what colours, patterns, are associated with individual features).
- Using harvest inspection forms to help guide harvesting and determine if cultural heritage management strategies/requirements are being/have been followed.
- Falling and yarding away from cultural features where possible.
- Ensuring adequate marking/identification of cultural values to help reduce accidental loss.
- Keeping accumulations of slash and (or) burn piles well away from features.

- Using machine free zones and (or) buffers to help ensure integrity of features and (or) excluding from harvest areas to protect potential high value cultural areas where not all features are known.
- **Specifically for culturally modified trees:**
 - Avoiding where possible.
 - Stubbing above cultural scar, where stubbing is necessary for wind throw risk, safety, forest health, longevity (e.g., dead pine stubs may last longer than full trees).
 - If necessary to fell, leaving the log, on the ground, scar side up.
 - Discussing stubbing ahead of time with local First Nations.
 - Keeping roads and debris piles out of culturally modified tree patches.
 - Maintaining representative examples (species, size, use) in large “stands” of CMTs where it is not possible/practical to maintain all CMTs.
- **Specifically for Cultural Trails**
 - Applying trail management strategies along the entire length of cultural trails within the harvest area
 - Stubbing trees and (or) retention of non-merchantable vegetation along trail edges will help identify trail boundary.
 - Minimizing crossings (machines, yarding)
 - Using over burden where possible.
 - Re-establishing access points at road crossings at time of road construction or as soon as possible afterwards.
 - Avoiding disconnecting trail with high cut-banks and/or fill slopes.
 - Avoiding crossing and yarding next to features during and after prolonged rain events.
 - Removing debris from trail beds; where appropriate, using hand cleaning to avoid potential damage from embedded debris.
- Including assessment of cultural heritage resource values on post-harvest checklists.
- Removing harvest debris where necessary to maintain feature identification and integrity.
- Ensuring adequate communication with people conducting post harvest activities such as pile burning and silviculture, so that features protected during harvest will remain protected (may require post harvest activity checklists, maps).
- Avoiding planting on cultural trails.
- De-briefing lessons learned with planners, field crews contractors and others as appropriate.
- Communicating with First Nations, even if things go wrong, — this has often resulted in relationship building and opportunities for better outcomes on future blocks.

**Pilot Indicators and Protocol:
Continued Improvements**

One of the goals of the CHR pilot is to test and refine the monitoring indicators and protocol and data collection practices. This year several improvement opportunities, such as streamlining the data form, were identified. These changes will help improve the effectiveness and efficiency of field forms. In addition, opportunities for improving data collection quality were identified, such as greater consistency in the way data is recorded.

Plans for CHR Monitoring under FREP in 2010 and Beyond

The FREP CHR pilot will be completed during the 2010 field season. Training of field staff will be through district to district mentoring and online support. Upon completion of the pilot, the combined three years of results will be analyzed and reported. In addition, the field cards, protocol and training materials will be finalized based on identified opportunities for improvement. It is intended that CHR stewardship monitoring will become operational in 2011.

Operational implementation of the CHR value will continue to promote continued field-level participation between First Nations, government and industry; thereby, creating ongoing opportunities for communications, capacity, trust and relationship building. In addition, multiple resource agency linkages and collaboration will continue to be explored with a goal of increasing efficiency and improving First Nations consultation outcomes.

Post Harvest

From a cultural heritage perspective, successful post-harvest management involves resource value identification, description, management planning and communication. The following activities are specific post-harvest management actions that can help ensure successful CHR management:

THANK YOU:

Thank you to all of the district staff who have, in collaboration with First Nations and industry, assisted in the development of this protocol, collected the data on which this note is based; and, suggested ongoing improvements. In addition, thank you to Lisa Levesque who initiated this work and led the Cultural Heritage Resource Value team, but has now moved to the Ministry of Healthy Living and Sport.

For more information on FREP, please see:

<http://www.for.gov.bc.ca/hfp/frep/index.htm>

or, contact Peter Bradford at Peter.Bradford@gov.bc.ca