

Protocol for Cultural Heritage Resource Stewardship Monitoring

For the most current version of this document, please consult the

FREP web site

<http://www.for.gov.bc.ca/hfp/frep/indicators/table.htm#heritage>

For other FREP information, please go to

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

Version 2.0



FREP

FOREST AND RANGE EVALUTION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Citation:

Province of British Columbia, 2011. Protocol for Cultural Heritage Resource Stewardship Monitoring. Forest and Range Evaluation Program, B.C. Ministry of Forest, Lands and Natural Resource Operations and B.C. Ministry of Environment, Victoria, BC.

Original prepared by
Lisa Levesque and the
Cultural Heritage Resource Working Group.
Revised by
Steve Lehnert and
Peter Bradford.

B.C. Ministry of Forests, Lands and
Natural Resource Operations

Copies of this report may be obtained, depending on supply, from:
Government Publications
PO Box 9452
Stn Prov Gov't
Victoria BC
V8W 9V7

In Victoria (250) 387-6409
Outside Victoria 1-800-663-6105

<http://www.publications.gov.bc.ca>

For more information on Resource Practices Branch publications, visit our web site at:
<http://www.for.gov.bc.ca/hfp/pubs.htm>

© 2011 Province of British Columbia

When using information from this or any FREP publication, please cite fully and correctly.

Acknowledgements

This protocol and associated field cards are the product of many individuals' insight, hard work, knowledge, and creativity. Thanks to all those who have provided comments on early drafts on this protocol, participated in field visits throughout its development, or contributed insights that have helped to shape this work. Particular thanks to the Forest and Range Evaluation Program (FREP) Cultural Heritage Resource Working Group members, both past and present, who have helped to make this program a reality.

Ajit Krishnaswamy (FORREX), Alec McKinnon (Nak'azdli First Nation), Andrew Riecker (Ministry of Forests, Lands and Natural Resource Operations [MFLNRO]), Becky Holte (Ulkatcho First Nation), Bernadette Manual (Nicola Tribal Association), Brandy Lauder (Hupacasath First Nation), Bruce Baptiste (Tsi Del Del First Nation), Bruce Low (MFLNRO), Cameron Beck (consultant), Carol Pollard (MFLNRO), Cheryl Gilbert (MFLNRO), Christine Galliazzo (MFLNRO), Cindy Stern (consultant), Darwyn John (St'at'imc Nation), Dawna Harden (MFLNRO), Devlin Fernandes (MFLNRO), Devon Windsor, Diane Goode (MFLNRO) Doug Glaum (Ministry of Tourism, Culture and the Arts), Dwayne Martin (T'lazt'en Nation), Ed Nedokus (MFLNRO), Eric Forgen (Ministry of Tourism, Culture and the Arts), Garry Merkel (consultant), Gilbert Richer (MFLNRO), Keith Hunter (First Nations Wildcrafters), Gene Cooper (T'silhqot'in Stewardship Department), Lana Wilhelm (consultant), Larry Joseph (FORREX), Lynne Jorgeson (Upper Nicola Band), Mary Sandy (Esh-kn-am Cultural Resources Management), Peter Bradford (FREP), Ricardo Toledo (MFLNRO), Sean Brennan (Haida Nation), Sean Muise (MFLNRO), Sharon Jules (Neskonlith Indian Band), Sharon Marr (MFLNRO), Steve Lehnert (MFLNRO), Steve Tatoosh (Hupacasath First Nation), T. Rosemarie Sam (Nak'azdli First Nation), Travis Glasman (consultant), Wendy Cocksedge (Centre for Non-Timber Resources), Jennifer Barolet (MFLNRO).

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

FREP Background

The *Forest and Range Practices Act (FRPA)* introduces the transition to a results-based forest practices framework in British Columbia. Under this approach to forest management, the forest industry is responsible for developing results and strategies, or using specified defaults, for the sustainable management of the 11 resource values identified under *FRPA*. The role of the Forest and Range Evaluation Program (FREP) is to evaluate the effectiveness of forest and range practices in achieving government's objectives for *FRPA*'s resource values.

Resource stewardship monitoring (RSM) is a key component of the provincial FREP. RSM will help identify implementation issues regarding forest policies, practices, legislation, and evaluate the effectiveness of Forest Stewardship Plan results and strategies. As a result, RSM is a fundamental tool for implementing continuous improvement of forest management in British Columbia.

FREP has been established as a multi-agency program to evaluate whether practices under *FRPA* are meeting not only the intent of current *FRPA* objectives, but also to determine whether the practices and the legislation are meeting government's broader intent for the sustainable use of resources.

FREP is a long-term commitment designed to:

- assess the effectiveness of *FRPA* and its regulations in achieving stewardship objectives
- determine if forest and range policies and practices are achieving government's objectives, with a priority on environmental parameters, and consideration for social and economic parameters, where appropriate
- identify issues regarding the implementation of forest policies, practices, and legislation as they affect achieving stewardship objectives
- implement continuous improvement of forest management in British Columbia.

To accomplish these objectives, FREP will:

- develop specific monitoring and evaluation questions to be addressed
- document the status and/or trends of resource values over time through the use of detailed protocols
- identify causal factors where the status or trend is found to be undesirable
- determine whether resource values are being managed in a sustainable manner through proven or alternative forest practices
- communicate the results of evaluations
- recommend changes to forest and range policies and legislation, where required

FREP

FOREST AND RANGE EVALUTION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Table of Contents

Acknowledgements	3
FREP Background	4
Table of Contents	5 & 6
Document Purpose	7
Legislation	7
Definitions of Archaeological Sites, Traditional Use Sites, and Cultural Heritage Resources.....	8
Important Considerations and Limitations of this Protocol.....	9
Availability and Access to Cultural Heritage Resource Information.....	9
Scale.....	10
Links to Other FREP Values.....	11
Incorporating Traditional Knowledge.....	12
Priorities for Cultural Heritage Resource Monitoring.....	14
Culturally Modified Trees (pre- and post-1846).....	15
Cultural Trails.....	16
Cultural Plants.....	16
Traditional Use, Spiritual or Ceremonial Areas, Sites or Features.....	17
Ecological Features with Cultural Significance.....	17
Archaeological Resources.....	18
Goals of Cultural Heritage Resource Value Monitoring.....	18
Current Strategies for Cultural Heritage Resource Management.....	19
Sources of Cultural Heritage Resources Information.....	20
A Note on Confidentiality.....	20
Completing the Field Cards.....	24
Step 1 Complete an Inventory of Cultural Heritage Resource Information.....	24
Step 2 Select Field Sites.....	27

a) Random Selection of Sites for Field Sampling (50% or more of your total sample).....	27
b) Selecting Targeted Sites (50% or less of total).....	28
Step 3 Completing the Field Checklist Part 1: Office Procedures.....	29
c) Opening Information.....	29
d) Locating Cultural Heritage Sites and Features from Documented Information Sources.....	30
e) Management Planning.....	33
f) Contacts.....	35
g) Pest Management History.....	38
Step 4 Completing the Field Checklist Part 2: Field Procedures.....	39
h) Locating Cultural Heritage Sites and Features in the Field.....	39
i) Assessing Management Effectiveness.....	40
j) Photos.....	41
Step 5 Completing the Cultural Plants Card (optional 2011)	
Documenting Previously Unrecorded Sites.....	42
Recording Culturally Modified Trees.....	44
Recording Other cultural Heritage Resource Sites.....	44
Rock Art.....	44
Cultural Depressions and All Other Features.....	44
For All New Sites.....	45
References.....	46

List of Figures

1. Cultural Values are Linked to All Other Values
2. Comparing Traditional Knowledge and Western Science
3. Small Bark-stripped Cedar with Tapered Bark-strip Scar
4. Process for Completing FREP HCR Effectiveness Evaluations

List of Tables

1. Documented Sources of Cultural Heritage Resource Information

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Document Purpose

This protocol provides background and instructions for field data collection for cutblock-level Cultural Heritage Resource (CHR) stewardship monitoring activities under the Forest and Range Evaluation Program (FREP). The protocol was designed in collaboration with several First Nations partners and is subject to change as knowledge is gained and new partnerships between the First Nations, Province, industry and other stakeholders are built.

Legislation

The *Forest Act* defines a CHR 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.*¹

The objective set by government for the CHR value under the *Forest and Range Practices Act* (FRPA) in the Forest Planning and Practices Regulation (FPPR) 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.*²

The FPPR also identifies the following factors that managers need to consider when managing cultural heritage resources:

- a) The relative value or importance of a particular cultural heritage resource to a traditional use by an aboriginal people;*
- b) The relative abundance or scarcity of a cultural heritage resource that is the focus of a traditional use by an aboriginal people;*
- c) The historical extent of a traditional use by an aboriginal people of a cultural heritage resource;*
- d) The impact on government granted timber harvesting rights of conserving or protecting a cultural heritage resource that is the focus of a traditional use by an aboriginal people;*
- e) Options for mitigating the impact that a forest practice might have on a cultural heritage resource that is the focus of a traditional use by an aboriginal people.*³

¹ RSBC 1996, Chapter 157. *Forest Act*, Section 1.

See: <http://www.for.gov.bc.ca/tasb/legsregs/forest/foract/part1.htm#section1>

² Forest and Range Practices Regulation (B.C. Reg.14/2004) Section 10.

See: <http://www.for.gov.bc.ca/tasb/legsregs/frpa/frparegs/forplanprac/fppr.htm#section10>

Default practice requirements currently do not exist for the CHR value under *FRPA*.⁴

The management and protection of archaeological sites is regulated under the *Heritage Conservation Act (HCA)*, which prohibits the destruction, excavation, or alteration of all pre-1846 archaeological resources unless a permit has been issued.⁵ Two mechanisms within the *HCA* are used to protect sites: designation and automatic protection. **Designation** is a process to protect a specific identified site; **automatic protection** is a tool to safeguard all sites of a certain type. All archaeological resources that pre-date 1846 receive automatic protection under the *HCA*, as do some types of sites that post-date 1846, including all burial sites and rock art (petroglyphs [rock carvings] and pictographs [rock paints]) (B.C. Ministry of Tourism, Sports and the Arts 2007).

Definitions of Archaeological Sites, Traditional Use Sites, and Cultural Heritage Resources

Archaeological sites consist of the physical remains of past human activity. The scientific study of these remains through the methods and techniques employed in the discipline of archaeology (e.g., survey, excavation) is essential to the understanding and appreciation of pre-European contact and historic cultural development in British Columbia. These non-renewable sites are very susceptible to disturbance and are finite in number. They are managed for their historical, cultural, scientific, and educational value to the general public, local communities, and First Nations. Archaeological sites may be of regional, provincial, national, or international significance (B.C. Ministry of Tourism, Sports and the Arts 2007).

Some examples of archaeological sites include: an 8000-year-old campsite in the Fraser River Canyon; a 19th century fur trade fort on the Peace River; a 3000 year-old grove of culturally modified trees near Prince Rupert; and a 19th century shipwreck off the West Coast (B.C. Ministry of Tourism, Sports and the Arts 2007).

A **traditional use site** is any geographically defined site or area identified by one or more First Nations' communities as an important area for traditional practice. Archaeological and traditional use sites may correspond, as areas of traditional practice may contain physical evidence of past

³ Forest and Range Practices Regulation (B.C. Reg.14/2004) Schedule 4.

See: <http://www.for.gov.bc.ca/tasb/legsregs/frpa/frparegs/forplanprac/fppr.htm#sch4>

⁴ Forest and Range Practices Regulation (B.C. Reg.14/2004), Part 4, Sections 35-70.

See: <http://www.for.gov.bc.ca/tasb/legsregs/frpa/frparegs/forplanprac/fppr.htm#part4>

⁵ Archaeological impact assessment studies are required where potential conflicts have been identified between archaeological resources and a proposed development. These assessments require a **heritage inspection permit** issued by the Archaeology Branch. Forestry activities (e.g., harvesting trees, excavating utility trenches, ground disturbing activities) may only proceed within the bounds of a recorded archaeological site if a **site alteration permit** has been issued.

human activity (e.g., human-made artefacts or structures). However, traditional use may not leave any detectable, physical evidence.

Traditional use sites are frequently documented with the assistance of oral, historical, and archival sources. Information about the existence and nature of traditional use sites is usually obtained through interviews, primarily with community elders, as well as archival and other literature research.

Although traditional use sites are not automatically protected by the HCA, they can be managed under FRPA.

The term **“cultural heritage resources”** applies to a large spectrum of heritage resources and cultural values, including both archaeological and traditional use sites. It is important to consider the value of not only defined sites, but also the connections between these sites, and a broader, more holistic concept of how First Nations people lived, and continue to live on the land. Cultural heritage values are interwoven with other landscape values, such as ecology and geology, as well as language stories, legends, and spirituality (B.C. Ministry of Sustainable Resource Management 2004).

Each First Nation in British Columbia has a unique interpretation of what the CHR value represents. This protocol seeks to identify common themes and concerns applicable across the province, as well as to focus on more locally important issues. Determining what CHRs or values are important locally and defining best management practices for these resources will be an ongoing learning and improvement process.

Important Considerations and Limitations of this Protocol

The following important considerations have shaped the focus and development of this protocol.

Availability and Access to Cultural Heritage Resource Information

Major gaps exist in the baseline information available on cultural values and resources at multiple scales, particularly information on spatial location and (or) distribution across the land base. Much of this information was never documented in written form, and has been lost with the passing of Elders and other knowledge keepers. Where this knowledge has been recorded, there is a frequent lack of available resources (i.e., funding and people) to collect or compile the information in an easily accessible database and to subsequently communicate this information to forest managers or government decision makers.

Although some CHR data is available through government databases (e.g., Traditional Use Study [TUS] database, Remote Access to Archaeological Data [RAAD] database, etc.), detailed CHR information is often held by bands, First Nations, or representative organizations (e.g., a Tribal

FREP

FOREST AND RANGE EVALUTION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Council). In many situations where detailed information does exist, communities or organizations are unwilling to share it with other resource managers because of concerns related to the sensitive or confidential nature of this information. In some cases, control of the information resides with individuals or families, and is not even directly available to a band of First Nation's staff or administrators. As a result, many CHR sites or features are effectively unknown to forest managers and government decision makers, and therefore can be at an increased risk of damage from forestry operations or range activities.

Resources available for communities to collect new CHR information are very limited. In some cases, proponents provide funding support for the completion of pre-harvest CHR assessments to lower the risk of damage to important sites or features, often through business arrangements with local First Nations.

It can be difficult or impossible to determine whether cultural sites or features that were not revealed or remain unrecorded were disrupted due to forestry operations, particularly where no detectable, physical evidence exists on the land base. For example, a spiritual site may be undetectable in the field because no physical evidence of its use exists, yet it remains very significant to an individual or community. For this reason, the protocol currently focuses only on evaluating post-harvest impacts to **known and geographically discrete ("site-specific") CHR sites or features**, and does not assess risk or damage to unrecorded sites or features. The CHR team will strive to improve the protocol to address this critical issue in the future.

Scale

This protocol is limited to monitoring the impacts of forest resource management practices on site-specific CHR sites or features only. We recognize, however, that many cultural values, concerns, or issues cannot be meaningfully defined, managed, or monitored at a cutblock or site level. Indeed, many authors have discussed the importance of recognizing entire "cultural landscapes" shaped by human habitation and use over time (e.g., Berkes and Davidson-Hunt 2006) and of understanding that cultural values are linked to the landscape as a whole and not simply to isolated sites which are easily delineated on a map.

A "landscape" can be delineated using many different administrative, political, or geographic boundaries (e.g., a timber supply area [TSA], a First Nation's traditional territory, or an individual watershed). Examples of specific landscape-scale issues identified by our partner First Nations include (but are not limited to):

1) *Social issues*

- o restricted or increased access to traditional and cultural use sites

FREP

FOREST AND RANGE EVALUTION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

- o impacts on traditional food and ceremonial resources including fish, wildlife, and culturally important plants (food, medicinal, material, and spiritual use)
- o impacts on large spiritual or ceremonial use areas

2) *Environmental Issues*

- o declines in fish and wildlife populations
- o loss of fish and wildlife habitat
- o depletion of high-value ecosystems or habitat types that support plant species used for cultural purposes

3) *Economic Issues*

- o managing cultural heritage values while providing opportunities for economic development.

Other FREP value teams (e.g., biodiversity and wildlife value teams) and (or) other environmental monitoring programs are addressing some of the aforementioned “environmental issues.”

Although this protocol adopts a site-specific approach as a first step towards gathering information about CHR management by resource managers, we recognize the limitations of this approach and of the resulting data.

Links to Other FREP Values

Cultural values associated with the land base are linked to all 11 FREP values (Figure 1). This protocol, however, is designed to focus only on those values, sites, and features that are currently not addressed by other FREP resource value teams.

Opportunities to integrate First Nations concerns into existing field protocols and data analysis for all FREP values will be a continued focus for the FREP team as a whole.

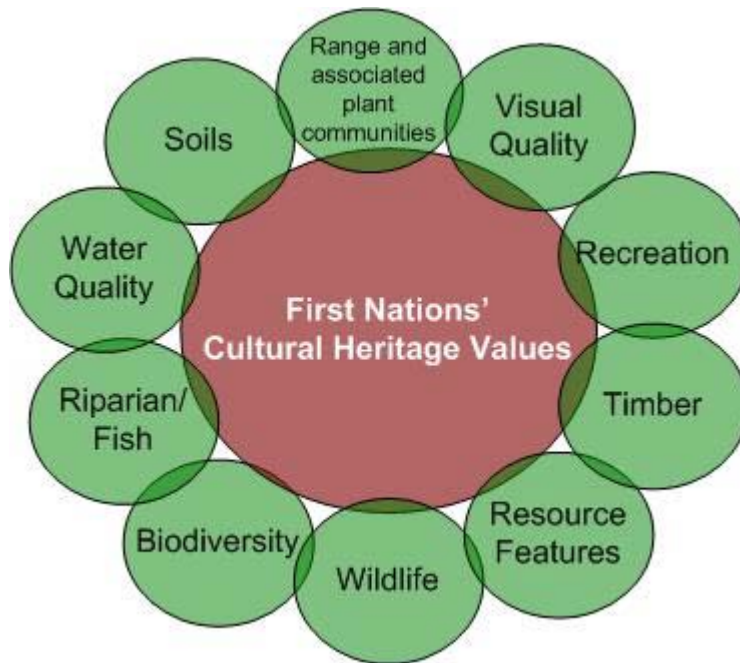


Figure 1. Cultural values are linked to all other FREP values.

Incorporating Traditional Knowledge

Traditional knowledge can be described or defined in many ways and several terms are frequently used to describe this body of knowledge: “Indigenous Traditional Knowledge” (ITK), “Indigenous Peoples Knowledge” (IPK), “Indigenous Ecological Knowledge” (IEK), “Local Ecological Knowledge” (LEK), and “Traditional Ecological Knowledge” (TEK). Here, we use the following working definition of TEK proposed by Berkes (1993:7):

A cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment.

Like Western science, TEK is developed through a cumulative and dynamic process that builds upon collective wisdom, practical experience, and adaptation to change over time. While similarities exist, Charnley et al. (2007:15) offer one perspective on the distinction between these two knowledge systems:

Western scientific knowledge tends to be driven by theoretical models and hypothesis testing, and generated using the scientific method; often generalizable and not always local; generated by research institutions; and documented and widely disseminated in written form.

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Traditional ecological knowledge...and local ecological knowledge...is generated through practical experience with the natural world in the course of everyday life; locally based on specific; and transmitted orally or through demonstration.

Stephens (2000:7) offers another more visual comparison of these two knowledge systems (see Figure 2).

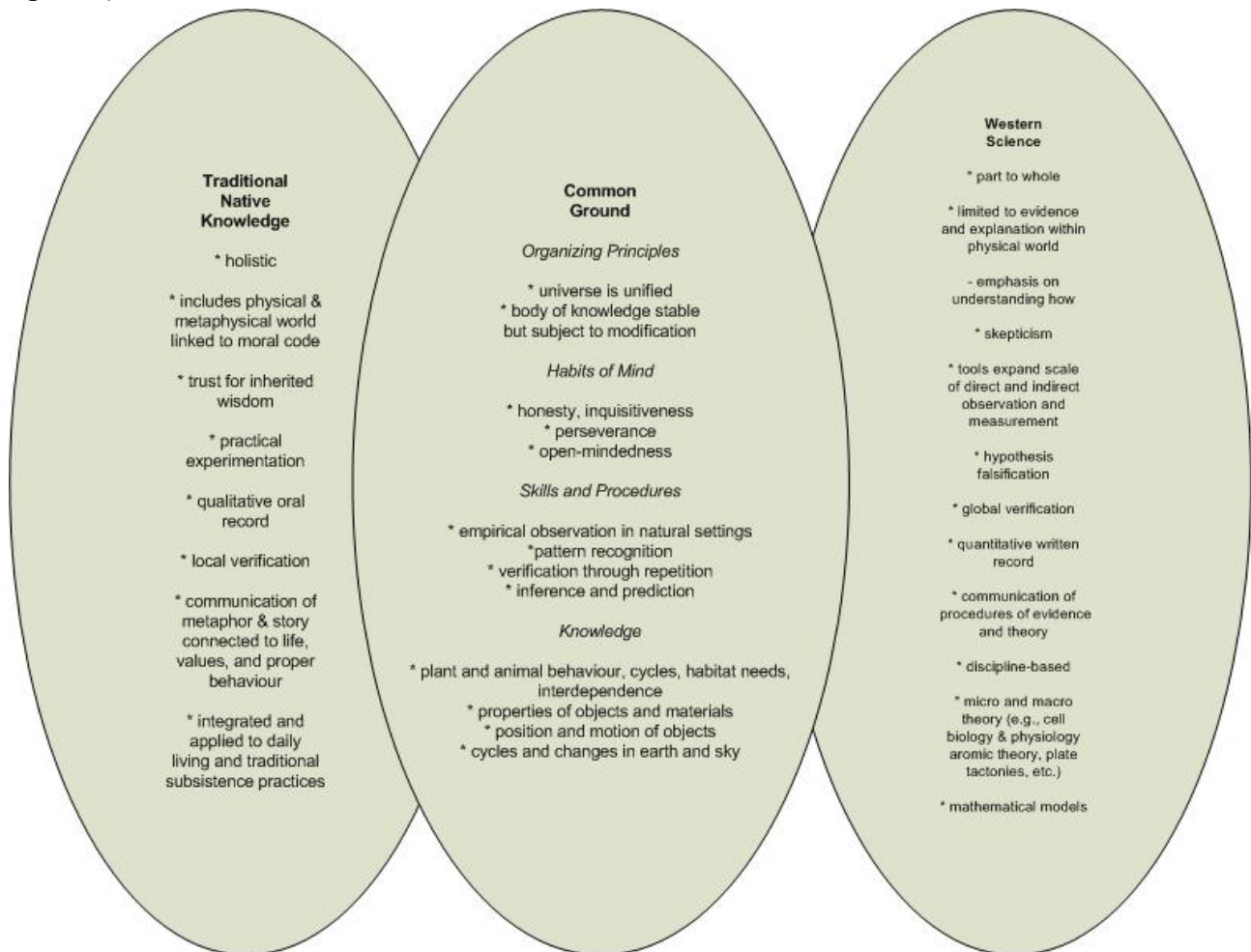


Figure 2. Comparing Traditional Knowledge and Western science (Stephens 2000:7)

Authors, practitioners, and international agreements (e.g., Article 8[j] of the Convention on Biological Diversity; United Nations 1992) recognize the considerable value of integrating traditional or indigenous knowledge, values, and perspectives with Western scientific views in resource management (e.g., Berkes 1999; Karjala *et al.* 2002; Moller *et al.* 2004; Charnley *et al.* 2007; Adam and Kneeshaw 2008). Yet, while an increasing number of practitioners in

management planning are putting this concept into practice (e.g., Karjala *et al.* 2002; Ashkui Project),⁶ it is challenging to operationalize, particularly at a provincial level. Few monitoring frameworks have successfully integrated traditional knowledge into monitoring protocols in Canada or abroad.

Priorities for Cultural Heritage Resource Monitoring

The monitoring procedures outlined in this protocol only assess the post-harvest management effectiveness of **known and site-specific CHR sites or features**. For this protocol, “known” sites are those recorded or identified by a First Nation, and of which forest managers and decision makers should therefore be aware. These sites or features may have been recorded in various ways (e.g., recorded through a TUS, identified and documented through information sharing processes recorded during a pre-harvest CHR assessment, etc.), and the exact physical location may or may not be recorded or known. For example, records may indicate the existence of an important ceremonial site in a given watershed, but ground verification of the exact site location may not have been completed.

In collaboration with our First Nations partners, the CHR team identified seven general categories of CHRs on which to focus:

- Culturally modified trees (CMTs)
- Cultural trails
- Traditional, ceremonial, and spiritual use sites or areas
- Cultural plants
- Ecological features with cultural significance
- Archaeological resources
- Monumental cedar

This list should not be considered final, complete, or universally applicable across the province, but serves as a useful starting point and framework for this protocol. This list of categories will be revisited as we build our knowledge base and relationships with First Nations.

Most First Nations make little or no distinction between archaeological resources and CHRs as both contribute to a broader understanding of how First Nations people lived, and continue to live, on the land. For this reason, it is not possible or practical to consider them independently during resource stewardship monitoring, even though each is governed by separate legislation. Information collected by FREP staff related to the management of archaeological sites or resources will be communicated to the Archaeology Branch at the Ministry of Forests, Lands and Natural Resources Operations.

⁶ See: http://www.nist.gov/public_affairs/Posters/ashkui.htm.

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Detailed descriptions of each CHR category follow, including examples of the specific site or feature types considered during FREP field evaluations.

Culturally Modified Trees (pre- and post- 1846)

The Culturally Modified Trees of British Columbia handbook defines a culturally modified tree (CMT) as:

A tree that has been altered by aboriginal people as part of their traditional use of the forest (B.C. Ministry of Small Business, Tourism and Culture 2-001:1).

Pre-1846 CMTs are automatically protected under the *Heritage Conservation Act* (HCA). Post-1846 CMTs are managed under FRPA.

Many different types of CMTs exist, including:



Aboriginally logged: canoe; barberchair stump; basin stump; felled; flat stump; log; notched; planked; undercut; sectioned; step stump stump; tested

Bark stripped cambium stripped; girdled scar; large rectangular scar; other scar; tapered scar

Other: arbourglyph; arbourgraph; blazed; burned; delimbed; kindling collection; knotted tree; marker; message; pitch collection; sap collection; totem pole

Most First Nations consider all CMTs to be important evidence of past and current use relevant to ongoing rights and title cases. However, there are differing views among First Nations regarding the level of protection required for CMTs as well as what constitutes acceptable management practices for this resource. Some First Nations advocate for the protection of all CMTs, while others selectively advocate for this protection and will support other management approaches in some circumstances (e.g., stumping CMT above the scar).

Aboriginal peoples in British Columbia used more than a dozen tree species. On the Coast, western redcedar (*Thuja plicata*) and yellow-cedar (*Chamaecyparis nootkatensis*) were predominantly used; Interior peoples frequently used lodgepole pine (*Pinus contorta*) and birch (*Betula* spp)

among other species.

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Figure 3 Small bark-stripped cedar with tapered bark-strip scar. Intact base formed into U shape by lobe growth (B.C. Ministry of Small Business, Tourism and Culture 2001:26).

Cultural Trails

Trails, ancient and new, tell the story of human interaction with the land in British Columbia. Historically, trails represented important social, recreational, cultural, and commercial or trade networks for both First Nations and settlers of European descent. Trails connected settlements and villages, provided access to spiritual and ceremonial areas, and facilitated resource gathering and use. Heritage trails are a living reminder of First Nations' historical connection with the land base, and contemporary trails and trail networks provide a continuing connection to a culturally important areas and resource within First Nations traditional territories. Trails pre-dating 1846 are automatically protected under the *HCA*, and post-1846 trails may be designated and protected as provincial heritage sites (Heritage Trails) under Section 9 of the *HCA*.

FREP monitoring will consider all historical trails (pre-1846), designated and undesignated contemporary (post-1846) cultural use trails, and trap lines.

Cultural Plants

For millennia, First Nations people have used plants for spiritual, medicinal, material, and subsistence purposes (Peacock and Turner 2000; Lepofsky and Lertzman 2008). A complex array of social and ecological factors, including the loss of habitat and of access to traditional and contemporary gathering areas, have contributed to a decline in these activities in some areas of the province (Turner and Turner 2008).

Some plant species are widely used by several First Nations for a wide variety of purposes. For example, the same species may be used as a staple food, an important medicine, and a critical component of ceremony. As Garibaldi and Turner (2004) observed, just as certain species of plants or animals appear to exhibit a particularly large influence on the ecosystem they inhabit (ecological "keystones"), the same is true in social systems. They suggest that certain organisms can be considered "cultural keystone species," defined as:

The culturally salient species that shape in a major way the cultural identity of a people, as reflected in the fundamental roles these species have in diet, materials, medicine, and/or spiritual practices (Baribaldi and Turner 2004).

A few examples of cultural keystone plant species used in British Columbia might include western redcedar, birch (*Betula* spp), Devil's club (*Oplopanax horridus*) or camas (*Camassia quamash*).

Many other plants may be used more locally or for more limited uses, and are no less critical from a cultural use perspective.

FREP

FOREST AND RANGE EVALUTION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Specialized knowledge related to the use, cultivation, processing, or spiritual practices associated with various plant species differs across nations, and among knowledge keepers or families in individual communities. In some cases, only one person or family holds knowledge, and sharing this information is considered a taboo. Increasing recognition of intellectual property rights has led to important dialogue regarding the protection, use, and dissemination of indigenous peoples' knowledge about plants (e.g., see Turner and Cocksedge 2001; Simeone 2004).

FREP monitoring will not involve any research or collection of specialized information about plant use or cultivation. Instead, monitoring protocols focus on the collection of information related to species presence, abundance, and distribution. At the site level, these data can help to determine whether specific plant gathering sites of importance to a given community are being conserved and (or) protected.

Traditional Use, Spiritual or Ceremonial Areas, Sites or Features

This broad category represents a wide range of site types including, but not limited to:

- Plant harvesting site (e.g., food, materials, medicines, spiritual plants)
- Hunting/trapping site (e.g., corral, pit, snare, fence, butchering site, hunting blind, trap deadfall)
- Sweatlodge
- Cremation site
- Monumental art (crest pole; memorial pole; mortuary pole)
- Supernatural area (e.g., wishing rock)
- Legendary site/transformer site
- Cedar bark strip area

Some areas may contain several different cultural heritage sites or features, which may or may not have physical evidence of past, or current use (Mason and Bain 2003). As well, the size of these sites may vary considerably, from a small campsite to areas of several thousand hectares (e.g., see Chehalis Band and Chilliwack Forest District 2008).

Ecological Features with Cultural Significance

Many First Nations have considerable interest in the management of wildlife within their traditional territories. Much of this interest lies with ensuring continued access to certain animal species for hunting and trapping purposes, while some is focussed either on conversation or on maintaining traditionally strong cultural or spiritual connections with certain animals species. For example, the Haida Bear Mother Story explains Haida peoples' close relationship with bears, and bears are considered to play an important role in the well-being of the land (Council of the Haida Nation 2004).

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Two types of ecological features with cultural significance are considered in this protocol:

- Dens (e.g., bear, cougar, coyote, etc.)
- Nests (e.g., eagle, goshawk, etc.)

Others will be added as appropriate.

Archaeological Resources

Archaeological resources are protected under the HCA through designation or automatic protection (B.C. Ministry of Tourism, Sports and Arts 2007). Many types of surface and sub-surface archaeological resources may be encountered in the field, including:

- **earthwork features:** fortification, mound, trench embankment
- **habitation features:** cultural depression (housepit, maternitylodge, menstrualodge, plank house, sweatlodge); cave; house post; mould; platform; refuge; rock shelter
- **subsistence features:** cultural depression (cache pit, roasting pit, steaming pit); hearth, post mould; bird hunting (bird hunting blind, bird net feature)
- **rock art:** petroglyphs (rock carvings) and pictographs (rock paintings)
- **cultural materials:** subsurface or surface (faunal, floral, firebroken rock, lithics, plant fibre, quarry, shell midden, wood)
- **human remains:** burial cairn, burial box, cave, grave goods, grave house, ledge, rock shelter, stone ring, talus, tree

Many British Columbia First Nations have established, or are working towards establishing, heritage policies, guidelines, agreements, bylaws, or protocols, and some have implemented community-based cultural resource permitting or equivalent systems (Mason and Bain 2003; Budwha 2005).⁷ These efforts reflect the desire of many First Nations to have a more dominant role in the practice of archaeology and control over cultural resource management in their traditional territories (Nicholas 2006).

Goal of Cultural Heritage Resource Value Monitoring

Stand-level CHR stewardship monitoring is undertaken to answer the following questions.

1. How are known CHRs actively managed and what strategies are used?
2. How has conversation or protection maintained the site integrity and (or) value?
3. Are results on the ground consistent with First Nations' expectations?

⁷ Mason and Bain (2003:14) provide a list of British Columbia First Nations with these processes in place (to 2003) (http://www.ubcic.bc.ca/files/PDF/REP-0429-final_draft.pdf).

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

4. Do professional site planning documents contain information about CHR management?
5. Are results on the ground consistent with site planning and site alteration permit commitments or requirements?
6. Is/was site damage due to unavoidable operational factors?
7. What management practices are resulting in adequately protecting, managing and/or conserving CHR values?
8. What management options may have improved CHR management on the site?
9. In what format, and how readily available, is CHR information?

Resource stewardship monitoring will also help to:

- build awareness and understanding of locally important CHRs;
- clarify First Nations' concerns that may require monitoring at different scales (traditional territory, regional, provincial);
- lead to a better understanding of practical, cost-efficient, and effective management practices for CHRs; and
- inform statutory decision makers.

Current Strategies for Cultural Heritage Resource Management

Conserving, and where necessary protecting, CHRs involves preventing the loss of, or minimizing damage to, sites or features. To achieve this, forest manager frequently use one or more of the following approaches to manage site-specific CHRS.

- Modify the cutblock boundary to avoid the feature ("site avoidance").
- Retain a buffer around the site or feature.
- Retain the feature with no buffer where safe to do so ("log around"; e.g., leave a CMT standing with no buffer).
- Modify tree crowns or stands.
- Conserve the feature in a temporary retention area or permanent reserve.
- Stub CMT above scar.
- Record the location and (or) date the feature with subsequent conservation or protection of the feature.
- Record the location and (or) date the feature before forestry activities proceed.
- Alter silviculture activities (e.g., selective harvesting to maintain understorey plant communities).
- Undertake detailed or systematic archaeological data recovery or preservation through record.
- Monitor for additional archaeological site information during forestry activities.

First Nations' have varying perspectives on which of these approaches is acceptable in a given situation for a given type of CHR. For this reason, ongoing dialogue between First Nations and other resource managers is crucial to determine the best management strategy on the ground.

Sources of Cultural Heritage Resource Information

To plan and execute the field portion of CHR stewardship monitoring, a review of all existing cultural heritage information for each sample site (cutblock) is essential. Although cultural information is increasingly documented in written form, British Columbia's indigenous peoples traditionally passed on knowledge orally (e.g., through stories, legends, or song) and therefore a considerable amount of written information may simply not exist (Tobias 2000). As well, First Nations' concerns are often communicated verbally to either a proponent or government staff (e.g., in a information sharing meeting, informal conversation held during a field visit, etc.) and may not be well documented. For these reasons, the review and consideration of both **documented** and **undocumented** sources of CHR information should be done.

Table 1 summarizes the numerous **documented sources** of CHR information, and includes links to relevant databases.

☀ **Tip:** Resources in Table 1 are listed in the suggested order for review. For example, because pre-harvest CHR assessments will likely contain the most thorough and accurate summary of field-verified information on site-specific CHRs, we recommend that you review these first if they are available.

Common undocumented sources of CHR information include:

- Informal conversations (phone calls meetings, field visits with an elder or community member)
- Formal communication (meetings hosted by a licensee to discuss CHR concerns; pre-work field visits)
- Oral histories (sometimes recorded on tapes, CDs, or DVDs)
- Knowledgeable elders, knowledge keepers, or other resource users in the community.

Undocumented information sources are clearly more difficult to access in a systematic way. One additional step, described later in this protocol, is to contact: (1) First Nation(s) whose traditional territory/territories overlap with the study area, and (b) proponents responsible for forestry operations on the site to determine whether any additional information is available regarding the presence or management of CHRs on the site (i.e., information not already gathered using documented information sources).

A Note on Confidentiality

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

When accessing or using CHR information, it is critical to observe and respect all verbal conditions expressed by a First Nation related to data confidentiality. This is particularly important where information held by a band, Nation, or community is shared with FREP staff for monitoring purposes.

FREP **data sharing** guidelines outline how FREP data is used, stored, and reported. Although First Nations may prefer to retain control over sensitive cultural data, FREP will also require access to monitoring results, for summary purposes. The data integrity guidelines will serve to clarify mutually acceptable practices for CHR data collection, storage, and analysis. The data sharing guidelines can be found, along with the CHR field cards at <http://www.for.gov.bc.ca/hfp/frep/indicators/table.htm>.

Table 1: Documented sources of cultural heritage resource information

Documents, reports, and studies				
Information source	Scale	Description	Considerations for use and Reliability	Source
Pre-harvest Cultural Heritage Resource Assessments	Cutblock	A cutblock- or site-level pre-harvest survey to identify traditional or archaeological sites or features on a particular block that should be considered in block planning. Funding often provided by licensees to complete the survey prior to block planning.	<ul style="list-style-type: none"> Often limited to individual cutblock and may not consider surrounding areas May miss sites with no physical evidence of cultural use (plant use, spiritual sites, etc.) Protocols for data collection vary depending on band or Nation 	<ul style="list-style-type: none"> First Nations Companies providing funding for surveys
Traditional Use Studies	1:10,000 to 1:50,000	Spatial data; identifies a range of traditional use sites and values as points, lines or polygons delineated on a spatial map layer (e.g., hunting, fishing, gathering areas, campsites, trails, ceremonial and spiritual sites)	<ul style="list-style-type: none"> Level of detail collected and completeness of studies varies considerably Accuracy of site locations variable May be confidentiality or information sharing concerns 56 First Nations participated in initial program which ran from 1995-2003 Many early studies have not been updated 	Provincial government TUS application (access restricted to BC government staff) ⁸
Land use and Occupancy studies ⁹	Variable	Studies involving the collection, documentation and mapping of traditional and contemporary land uses, often based on interviews with elders and other users. Similar function to TUS, but different terminology.	<ul style="list-style-type: none"> Referred to by many names (see footnote) No established provincial standards, but many follow Tobias (2000) May not be field verified (i.e., exact site locations unknown) 	<ul style="list-style-type: none"> Forest companies FLNRO district First Nations
Archaeological Potential	1:20,000 to	<ul style="list-style-type: none"> Mapping or GIS modelling identifying archaeological resource potential and 	<ul style="list-style-type: none"> Useful for locating areas with high archaeological potential 	<ul style="list-style-type: none"> Remote Access to

⁸ BC government staff have access to the TUS application: <http://apps12.for.gov.bc.ca/tus/init.do>

⁹ These studies may be referred to by many names: land use and occupancy; land occupancy and use; traditional use; traditional land use and occupancy; current use; and mapping culturally sensitive areas (Tobias 2000)

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Information source	Scale	Description	Considerations for use and Reliability	Source
mapping:	1:50,000	<ul style="list-style-type: none"> distribution in a study area Studies combine existing knowledge about recorded archaeological site locations, early First Nations land use in the area, and cultural and environmental constants and changes in the area likely to affect site location to predict where archaeological sites should be located 	<ul style="list-style-type: none"> Some AOAs or archaeological predictive models are not maintained by the Province Some AOAs were not completed with active participation of First Nations in the area – can lead to limited acceptance of the model New provincial standards exist (April 2008), but existing model accuracy and efficiency varies considerably - often depending on the quality and quantity of available information and field verification 	Archaeological Data (RAAD) application ¹⁰ (restricted access) <ul style="list-style-type: none"> First Nations Forest companies FLNRO district offices
Archaeological Overview Assessment (AOA) mapping	Covers hundreds to many multiple thousands of hectares	<ul style="list-style-type: none"> Can be based on professional judgement (qualitative) or supported by GIS (quantitative; for larger more complex areas) 		
and (or)				
Archaeological Predictive Modelling (GIS supported)	covers hundreds to many multiple thousands of hectares			
Archaeological Reviews	variable	Typically completed by professional archaeologists for companies with limited operating areas in lieu of a larger scale AOA following similar procedures; determines the need for field study (AIA, PFR) in a specific operating area		<ul style="list-style-type: none"> Forest companies First Nations
Archaeological Field Studies	1:20,000 to 1:50,000	<ul style="list-style-type: none"> Preliminary Field Reconnaissance (PFR) – determines need and scope of additional more technical AIAs Archaeological Inventory Studies (AIS) - identify and map the location and extent of archaeological sites Archaeological Impact Assessments (AIA) - evaluates site significance and magnitude of adverse impacts when sites cannot be avoided 	<ul style="list-style-type: none"> Sites recorded through PFRs are sometimes not uploaded into the provincial database Techniques employed in PFRs can vary across companies, and are often not completed by professional archaeologists provincial Archaeological Site Inventory updated weekly with new archaeological site records and information Provincial inventory only contains archaeological site records that have been formally recorded and 	Remote Access to Archaeological Data (RAAD) application ¹¹ <ul style="list-style-type: none"> Forest companies¹¹

¹⁰ BC government staff must request access to the RAAD application:

http://www.tca.gov.bc.ca/archaeology/accessing_archaeological_data/RAAD_overview.htm

¹¹ Where licensees choose not to submit PFR results to the Archaeology Branch as recommended (not legislated), this information may only be directly accessible from the company. Best practices for completing PFR are accessible at:

http://www.tca.gov.bc.ca/archaeology/docs/PFR_Best_Practices.pdf

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Information source	Scale	Description	Considerations for use and Reliability	Source
Operational Plans	cutblock	Site plan or silviculture prescription. Details all harvesting and road building plans within a specific operating area.	submitted to the Archaeology Branch May contain details of known cultural heritage resources or sites in the cutblock area and management strategies used. May only be available on request from forest companies.	FLNRO district office (limited) or forest company
Strategic Land and Resource Plans	variable	High-level strategic plans that provide strategic direction for the management of Crown land and natural resources in a given area. <ul style="list-style-type: none"> Land and Resource Management Plans (LRMP) Strategic Resource Management Plans (SRMPs) First Nations' Land Use Plans 	Strategic Land and Resource Plans have not been developed and (or) approved for all areas of the Province of British Columbia. Some plans may identify areas of special cultural significance, specific sites requiring special management, or objectives related to cultural heritage resources.	Integrated Land Management Bureau http://ilmbwww.gov.bc.ca/slrp/index.html ¹²
Information sharing records	variable	Records documenting results or discussions from referrals meetings, referral responses received from First Nations, or other correspondence for the purposes of meeting government's legal consultation obligations.	Organized and catalogued differently in each district. May not contain exact site/feature locations.	FLNRO district office Forest Companies
Strength of Claim Assessments	variable	Required so decision makers may better understand the nature of their consultation obligations in a given area and are comprised of two documents: <ul style="list-style-type: none"> An ethnographic/historical study of First Nations' cultural information compiled in support of a potential aboriginal right, and A legal opinion based on evidence provided in the ethnographic/historical study 	These studies contain information similar to that collected through Traditional Use Studies. Some information may be held by the First Nation whose claim is the subject of the assessment. Completed by the research group at the Ministry of Aboriginal Relations and Reconciliation (MARR). Original copies held by the Ministry of the Attorney General.	Available through AECIS .

Other useful Databases and Websites

Information source	Scale	Description	Considerations for use and Reliability	Source
--------------------	-------	-------------	--	--------

¹² SLRP website can be accessed at: <http://ilmbwww.gov.bc.ca/slrp/index.html>

<p style="text-align: center;">FREP</p> <p style="text-align: center;">FOREST AND RANGE EVALUATION PROGRAM</p> <p style="text-align: center;">Scientifically Valid Evaluations of Forest Practices under the <i>Forest and Range Practices Act</i></p>			
--	--	--	--

First Nations Information Portal (FNIP)	-	This webpage has been developed to provide an overview of Aboriginal Affairs Branch systems projects. Provides linkages to project announcements, reference documents, and training materials.	Updated often, check regularly. Most information is secured and available to approved users only. Some information available to the public.	FNIP ¹³
First Nations Consultative Areas Database	-	A compilation of geographic areas collected from various sources available to the Province of British Columbia, that relate to a First Nation's potentially existing treaty or aboriginal rights or title, whether or not proven.	Boundaries of asserted traditional territories can be subject to change – verification of current boundaries may be required	First Nations Consultative Areas Database ¹⁴ (restricted access)
Aboriginal Engagement Corporate Information Site (AECIS)	-	A SharePoint site designed specifically for posting and sharing documents and information about documents. AECIS supports all agencies' ability to coordinate and communicate with each other on agreements with First Nations in place across the province. It is also a research tool to assist agencies to search for engagement with a particular First Nation and/or project and/or region of the province.	Many documents will not contain specific site level information. Restricted access.	AECIS (restricted access)
First Nations Forestry Analysis Tool	-	Query results will display the amount of overlap of First Nation territories with forest tenures, management units or organizational units	For the Coast Forest Region only	FNFAD ¹⁵

Completing the Field Cards

Step 1 – Complete an inventory of Cultural Heritage Resource Information

The amount and quality of information on cultural heritage sites or features will vary considerably among districts. In some cases, most of the high-quality and up-to-date information will be managed by a band, First Nation, or Tribal Council and you will have to work closely with the appropriate agency to use or access this information. Proponents may have completed various archaeological or cultural studies, preferably in collaboration with First Nations in their operating

¹³ First Nations Information Portal can be accessed by government users only at: <http://gww.for.gov.bc.ca/haa/FNIP.htm>

¹⁴ Accessible to government staff via the following URL: https://apps.gov.bc.ca/int/cbd/jsp/Ministry/min_main.jsp

¹⁵ Accessible to government staff via the following URL: <http://gww.for.gov.bc.ca/rco/fnfad/>

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

area, and may have additional data that should be considered. In other cases, very little site-specific CHR information will be available because limited or no research has been completed, or the exact location of sites identified through land use and occupancy studies have not been verified in the field (Tobias 2000).

Although most districts have a catalogue or inventory of CHR information they hold, most of this information is not linked to specific sites (cutblocks) or is not “spatially explicit.” Only a few forest districts have GIS databases or data layers that link all CHR information and studies to specific geographical locations.

If your district does not have an inventory of CHR information, you will first need to create one. This step ensures that all available CHR information is known and used, and that important CHR sites or features are not missed during field sampling.

Before the field season commences, all districts should complete a CHR data inventory for their district. Figure 4 outlines the general steps followed to complete the field cards.

FREP
FOREST AND RANGE EVALUATION PROGRAM
Scientifically Valid Evaluations of Forest Practices under the <i>Forest and Range Practices Act</i>

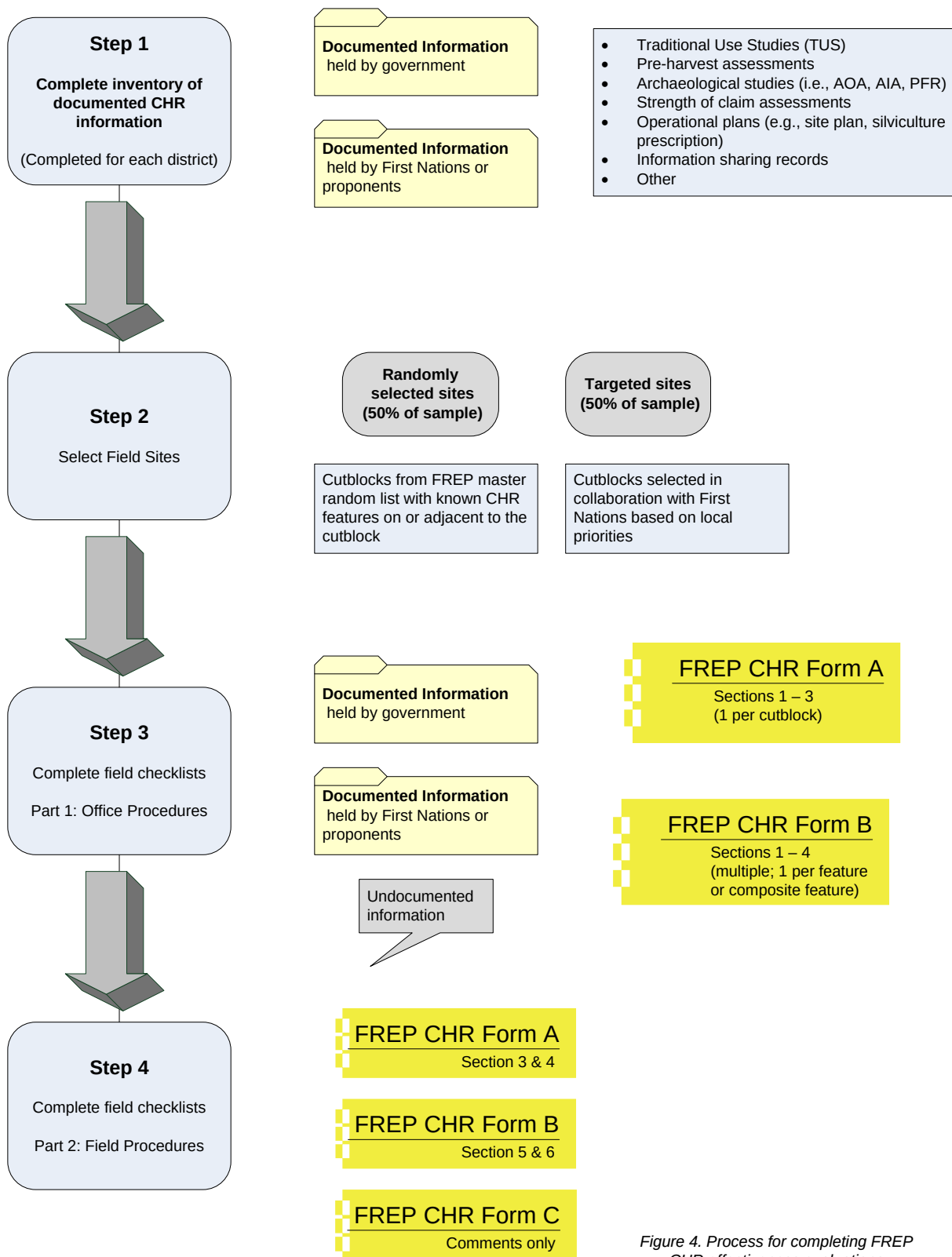


Figure 4. Process for completing FREP CHR effectiveness evaluations

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Step 2 – Select Field Sites

You will assess a combination of targeted and randomly selected sites for field evaluation.

Key Parameters for Site Selection:

- Randomly selected sites should make up at least 50% of your total sample
- Ideally a minimum sample size is six cutblocks
- Maximum sample size to be determined by district staff (based on available resources)
- All sites selected for field evaluation must have at least one known CHR within or adjacent to the cutblock.

(a) Random Selection of Sites for Field Sampling (50% or more of your total sample)

At least half of the blocks evaluated by your district should be selected from the **FREP Random List** (same list for biodiversity, riparian, water quality and cultural heritage). The list is generated annually through the FREP Information Management System (IMS), which queries the Forest Tenure Administration (FTA) database using specified parameters:

- (i) **Time parameters:** limited to cutblocks with specified harvest completion dates (date range changes annually), and
- (ii) **Size parameters:** limited to cutblocks greater than 2.0 ha.

Remove sites from the list only if no CHR sites or concerns are identified, or if a local First Nation has expressed a strong objection to the completion of a CHR assessment on the site. Questions regarding special circumstances should be referred to the resource value team lead (VTL). For example, a site may be deleted from the population if active nearby harvesting wildlife, weather or other operational issues on the cutblock make it too dangerous to sample.

When you have identified sample cutblocks with at least one identified CHR site or feature:

1. Review all remaining data sources to identify any other CHR concerns associated with that cutblock.
2. Fill out one Form A for the cutblock, and one Form B for each identified CHR site or composite site.
3. Contact the proponent responsible for the cutting permit to determine whether CHR planning occurred for the cutblock.
4. If not done already, contact First Nation(s) to discuss whether additional information exists for the cutblocks.

If Some or All First Nations in your District Manage their Own CHR Information

Some First Nations manage the most up-to-date CHR data for their traditional territories. In these cases, you should endeavour to work with First Nations to select sites from the random list for field sampling. Locally developed processes for this step will likely be required.

For example, you may choose to provide the FREP Random List to a First Nation or Tribal organization and ask them to identify sites that qualify for FREP sampling. **Please clearly communicate the need to select sites sequentially and without bias.** Strong working relationships are critical to the success of this approach. Feel free to discuss your local situation or approach with the RVTL.

(b) Selecting Targeted Sites (50% or less of total)

To select targeted sites for field sampling, you should endeavour to work directly with First Nations in your district. Some reasons why you may choose to target a cutblock for field sampling include (but are not limited to):

- The cutblock lies within a “cultural management zone” or area similarly designated by a First Nation that may or may not have specified CHR management protocols.
- The cutblock is known to have had successful CHR management strategies applied, and can be showcased as an example of “best practices.”
- There is specific concern that CHR management on the cutblock has been less than adequate.

You should consider the following issues when selecting targeted sites.

Equity Across First Nations

Some district boundaries intercept numerous First Nations’ traditional territories. Therefore, it may be difficult to ensure that field sampling occurs in every First Nation’s traditional territory every year. How can you ensure that field sampling is equitably distributed among First Nations in your district?

Administrative Boundaries

□ **Tip:** Resources in Table 1 First Nations may not use the Opening ID to identify a particular cutblock or to link their cultural information to the cutblock. If you are working with First Nations to select cutblocks and to review information, you should provide as much information about the each cutblock as possible including: mapsheet, license number, cutting permit number, local place names, and large-scale maps locating the cutblock.

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Will a comparison across administrative boundaries be of interest in your district? Some examples include:

- **Forest License** (Are some licensees completing pre-harvest CHR assessments and some not?)
- **Timber Supply Area** (Are notably different cultural use patterns evident in different TSAs?)
- **Landscape Units or Watersheds** (Are some watersheds or areas known to have high concentrations of cultural sites or high levels of historical use?)
- **Culturally Sensitive Areas** (Have any First Nations delineated “culturally sensitive areas,” “cultural management zones,” or similarly designated areas that they are interested in re-visiting?)

Pre-harvest Assessments or Surveys

Pre-harvest assessments typically provide the most accurate and complete information about CHR sites and features associated with a given cutblock. Have pre-harvest assessments been completed in your district? If so, selecting these cutblocks for post-harvest sampling may provide a wealth of information about the effectiveness of various CHR management approaches.

Relationships with First Nations

Consider your working relationship with First Nations in your district. Would completing this kind of field assessment potentially improve relationships with certain First Nations? Is it likely that you will get an appropriate representative to join you in the field?

Consistency

Although we recognize that every district’s site-selection approach may need to be slightly different to address local needs, we want to ensure as much consistency in the cutblock selection process as possible. Discuss your local situation with the RVTL to ensure that you follow the basic principles used across the province.

Step 3 – Completing the Field Checklist Part 1: Office Procedures

This section guides you through the process of filling out CHR Forms A and B. Note that you may record any additional comments on Form C. Office preparation is a critical step in the CHR protocol. Before heading into the field, ensure that you have reviewed all sources of CHR information, including those held by other parties. For this reason, it is important to contact all First Nations with potential interests in the area as well as the proponent that holds the cutting permit.

(c) Opening Information

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*



Cultural Heritage Resource Value
Resource Stewardship Monitoring

Form A Side 1
SITE FORM
(complete 1 per cutblock)

1. Opening Information				
Date (mm/dd/yy)		Assessed by		District
Opening ID		Licence # / CP #	Block #	
Proponent		Year of Harvest	First Nations' place name or Block name	
BEC subzone variant and site series		General Location		
2. Summary of Known Cultural Heritage Sites and Features				
Feature ID	Description Code ¹	Information Source ²	Associated feature(s) [provide feature ID(s)]	Comments
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Description Codes	
Archaeological Resource	A
Culturally Modified Tree	CMT
Cultural Plants	P
Cultural Trail	CT
Ecological Features with Cultural Significance	EF
Traditional Use, Spiritual, or Ceremonial Sites or Features	TUA
Other	O

Information Source Codes	
Archaeological Impact Assessment	AIA
Archaeological Overview Assessment	AOA
CMT survey	S - CMT
Consultation/referral records	C
FRA/FRO Areas of Interest	FRA or FRO
Personal Communication (please specify in comments)	PC
Preliminary Field Reconnaissance	PFR
Pre-harvest CHR survey or assessment report	S - PH
Site Plan or Silviculture Prescription	SP (1) or SP (2)
Traditional Use Study	TUS
Other	O

FS 1358A HFP 2011/05 PAGE 1

1. For each selected cutblock, collect the post-harvest map and access information, and if available, orthophotos, aerial photos, and site plan (or silviculture prescription).

2. Fill in the opening identification section (Section 1) on Form A and header information on at least one Form B. You will require more than one Form B if multiple CHR sites are present on the cutblock or adjacent to it.

(d) Locating Cultural Heritage Sites and Features from Documented Information Sources

1. Collate and review all available sources of CHR information for each cutblock including (see Table 1):

- Pre-harvest survey or inventory information (e.g., CMT survey, CHR field survey, etc.)
- Consultation and information sharing records
- TUS database
- Land use and occupancy study maps and data
- Archaeological potential maps or model (to determine ranking for the cutblock)
- Archaeological Impact Assessment (if completed)
- Site alteration permit(s) (if applicable)
- Other sources as appropriate

2. In Section 2 on Form A, list all known CHR sites associated with the opening. Note that each CHR feature will have a unique “Feature ID.” Choose the most appropriate description code and

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*



Cultural Heritage Resource Value
Resource Stewardship Monitoring

Form B Side 1
SITE FORM
(complete 1 per feature)

Opening ID _____ Feature ID(s) (from Form A) _____

1. Site or Feature Description ☐ Individual feature ☐ Composite site or feature: Composite ID# _____ (please assign)			
Check all that apply: ☐ Archaeological or heritage site ☐ Burial site ☐ Nest (eagle, goshawk, other) ☐ Cultural trail with associated features ☐ Cremation site ☐ Den (bear, cougar, coyote, other) ☐ Cultural trail (designated/undesignated) ☐ Ceremonial site ☐ Cave or other Karst feature ☐ Individual CMT ☐ Cedar bark strip area ☐ Rock outcrop ☐ Stand of _____ (#) CMTs ☐ Individual monumental cedar ☐ Other (describe): ☐ Traditional use site ☐ Stand of _____ (#) monumental cedar ☐ Spiritual site			
Description of site or feature and location description:			
Size of feature (if applicable): Length _____ m OR Area _____ ha			
Is this CHR a registered archaeological site? ☐ No ☐ Yes Borden #: _____			
2. Location UTM Coordinate: Zone _____ E _____ N _____			
Check all that apply, if known: ☐ In harvested area ☐ Adjacent to block ☐ Adjacent to, or in close proximity to water ☐ Entire cutblock area ☐ In reserve – type: _____			
3. Age Check all that apply: ☐ Pre-1846 ☐ Post-1846 ☐ Age unknown ☐ Historical use			
4. Management Planning			
Management Strategy	Recommendation(s) by First Nation(s) (specify First Nation(s))	Recommendation(s) in AIA or site alteration permit	Identified in site plan or silviculture prescription (SP)
	☐ No First Nations provided management recommendations	☐ No permit issued ☐ Yes Permit # _____	☐ No management strategies noted in SP
Modify block boundary to avoid the feature	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Retain a buffer of _____ m around site or feature	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Retain in harvest area – no buffer	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Crown or stand modification	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Conserve in permanent reserve type:	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Conserve in temporary retention area type:	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Date the feature	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Stub (some/all) CMT(s) above scars	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Leave standing where safe to do so	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Alter silviculture activities	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Other:	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Other:	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
☐ Additional comments on Form C			

FS 1358B HFP 2011/05

PAGE 1

information source code
form the tables located at the bottom of side 1 on Form A. If a site or feature is associated with one or more other sites (e.g., a cultural trail with two CMTs and a berry-gathering site adjacent to it), note all associated feature IDs in the column provided. These will be considered “composite features” on Form B, and may be evaluated separately or together as one “composite feature.”

Fill out one Form B for each identified feature.
Fill out Section 1 (“**Site or feature description**”) on each Form B. If none of the checkboxes describes the site or feature in question, check “other” and ensure that you provide a detailed description of the feature in the space provided. This information should also be used to update

the master list of CHR site types.

Composite versus individual features: A collection of two or more closely associated sites may be considered to be a “composite feature” (e.g., a cultural trail with two culturally modified trees adjacent to it). If the information available to you suggests that this composite feature has been

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

managed using the same strategy (e.g., a 10-m buffer was retained around both the trail and the adjacent CMTs, or all sites were avoided by modifying the cutblock boundary), then you may choose to fill out only one Form B and assess all features as one composite feature to avoid redundancy. You should reassess this decision in the field to confirm whether it is still logical. For example, if you arrive in the field and realize that the CMTs were left standing with no buffer and the trail was buffered as planned, then you should use one Form B to assess each feature individually.

- **Recorded archaeological sites:** When a protected archaeological site is identified by a professional archaeologist through an AIA or other type of field assessment, site information is forwarded to the Archaeology Branch. The site is assigned a unique identifier (Borden number) and the information is recorded in the British Columbia Archaeological Site Inventory. However, some known sites have not been reported. Sites identified during a PFR completed by non-professionals are not always forwarded to the Archaeology Branch. Some First Nations have independent archaeological resource management regimes in place to manage archaeological site information and administer a permitting process. These First Nations' regimes run parallel to the provincial process and do not replace it. You can find the Borden number for sites recorded in the provincial archaeological site inventory from the RAAD application.

Fill out the Location (2) and Age (3) sections for each feature. If you do not know the exact location (UTM co-ordinates), then provide as much descriptive detail as possible in the "location description" box to help you locate the feature when you arrive in the field.

Mark the location, where known, of all CHR sites on your field map.

- Where UTM or other co-ordinates are available, use these to locate the sites on your field map. GIS or MapView are useful tools for completing this step electronically.

How to Deal with Known Features with Unknown Locations

For known sites or features with unknown locations, consider whether field staff are likely to locate the site. Is it a site with clear physical evidence on the land base (e.g., a CMT) or one that may be difficult to locate because no physical evidence exists (e.g., a spiritual site)?

- **Sites with physical evidence:** If you have a general site location description only, note this information in Section 1 on Form B in the "description of site or feature and location description" box for that feature (e.g., stand of five CMTs on the Johnny River). To improve

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

efficiency when searching for these sites or features in the field, highlight areas on your map where they are most likely located. These may include areas that are:

- Near permanent riparian areas or water bodies (e.g., lakes, bogs, fens, etc.)
 - Along travel corridors (e.g., cultural trails, rivers)
 - Near other known CHR sites
 - Low slope with good views or “lookouts”
- **Sites with no physical evidence:** For sites, features, or areas with vague location descriptions (e.g., “spiritual site in the Bluewater watershed”) and with no likely physical evidence in the field, you will need to draw heavily on local expertise and knowledge held by the First Nation or individual who identified this site to determine how best to assess impacts. If you cannot contact anyone who can supply more information about the site or who can put you in touch with the appropriate community member, or the site is simply not easily delineated on the ground, you should insert a checkmark in the “unable to locate the feature” box in Section 5 (Form B), and provide comments in the place provided in Section 5. You should also follow up with the affected band or Nation to determine whether harvesting has rendered the site unsuitable for continued use. For example, consider a site used for ceremonial purposes that now has a road running directly beside it, and is surrounded by a cutblock. Will community members still use this site or has the site’s integrity been compromised?

(e) Management Planning

Plans for the conservation or protection of CHRs may be recorded in several locations including (but not committed to):

- First Nations’ recommendations or established protocols for site management
- Recommendations for site management made by professional archaeologists (for archaeological sites only)
- A proponent’s planned management strategy for the site or feature

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*



Cultural Heritage Resource Value
Resource Stewardship Monitoring

Form B Side 1
SITE FORM
(complete 1 per feature)

Opening ID _____ Feature ID(s) (from Form A) _____

1. Site or Feature Description ☐ Individual feature ☐ Composite site or feature: Composite ID# _____ (please assign)			
Check all that apply: ☐ Archaeological or heritage site ☐ Burial site ☐ Nest (eagle, goshawk, other) ☐ Cultural trail with associated features ☐ Cremation site ☐ Den (bear, cougar, coyote, other) ☐ Cultural trail (designated/undesignated) ☐ Ceremonial site ☐ Cave or other Karst feature ☐ Individual CMT ☐ Cedar bark strip area ☐ Rock outcrop ☐ Stand of _____ (#) CMTs ☐ Individual monumental cedar ☐ Other (describe): _____ ☐ Traditional use site ☐ Stand of _____ (#) monumental cedar ☐ Spiritual site			
Description of site or feature and location description:			
Size of feature (if applicable): Length _____ m OR Area _____ ha			
Is this CHR a registered archaeological site? ☐ No ☐ Yes Borden #: _____			
2. Location UTM Coordinate: Zone _____ E _____ N _____			
Check all that apply, if known: ☐ In harvested area ☐ Adjacent to block ☐ Adjacent to, or in close proximity to water ☐ Entire cutblock area ☐ In reserve – type: _____			
3. Age Check all that apply: ☐ Pre-1846 ☐ Post-1846 ☐ Age unknown ☐ Historical use			
4. Management Planning			
Management Strategy	Recommendation(s) by First Nation(s) (specify First Nation(s))	Recommendation(s) in AIA or site alteration permit	Identified in site plan or silviculture prescription (SP)
	☐ No First Nations provided management recommendations	☐ No permit issued ☐ Yes Permit # _____	☐ No management strategies noted in SP
Modify block boundary to avoid the feature	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Retain a buffer of _____ m around site or feature	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Retain in harvest area – no buffer	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Crown or stand modification	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Conserve in permanent reserve type:	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Conserve in temporary retention area type:	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Date the feature	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Stub (some/all) CMT(s) above scars	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Leave standing where safe to do so	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Alter silviculture activities	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Other:	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
Other:	☐ No ☐ Yes	☐ No ☐ Yes	☐ No ☐ Yes
☐ Additional comments on Form C			

FS 1358B HFP 2011/05

PAGE 1

Commitments or management recommendations may also have been made verbally – formally or informally – by a proponent or First nation, and were not documented.

In Section 4 on Form B, you will document and compare:

- First Nation's recommendations or established protocols for site management
- Recommendations for site management made by professional archaeologists (for archaeological sites only)
- A proponent's planned management strategy or the site or feature

To obtain this information, you can:

- Review any established CHR management protocols in

your district (e.g., trail management protocol).

- Contact the affected First Nation(s) and discuss whether any management recommendations were made and supporting documentation.
- Review any site alteration permits issued for this opening and document any management recommendations.

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*



Cultural Heritage Resource Value
Resource Stewardship Monitoring

Form A Side 2
SITE FORM
(complete 1 per cutblock)

3. First Nation and/or Proponent Contacts		
Include dates and names. Use card C if needed.	Contacted	Attending on site
	☐ Yes ☐ No	☐ Yes ☐ No
	☐ Yes ☐ No	☐ Yes ☐ No
	☐ Yes ☐ No	☐ Yes ☐ No
	☐ Yes ☐ No	☐ Yes ☐ No

4. Block Summary
Q1 Were there operational factors that limited CHR management options on this block? ☐ Yes (please describe) ☐ No
Q2 Were there management strategies and/or practices used on this block that were particularly effective in managing CHR values? ☐ Yes (please describe) ☐ No
Q3 Are there management strategies and/or practices that could have been used to reduce impacts on CHR values on this block? ☐ Yes (please describe) ☐ No
Q4 To what extent did practices on this block maintain CHR values given the recommendations and opportunities that were available? ☐ very poorly ☐ poorly ☐ moderately ☐ well ☐ very well ☐ don't know Rationale:
☐ Additional comments on Form C

FS 1358A HFP 2011/05

PAGE 2

- Review the site plan or silviculture prescription (SP) for the cutblocks and note any actions planned to conserve or protect CHRs.

- Review FSP results and strategies.

- Contact licensee.

- Information sharing records.

Anecdotal accounts suggest that proponents frequently do not include all management plans for known cultural sites, features, or values in the SP. Data collected through this field card section will provide FREP with an indication of how frequently CHR management planning is outlined in SPs.

(f) Contacts

First Nations

You should collaborate with all First Nations whose asserted

traditional territories overlap with the openings you assess. This will ensure you are aware of:

- all CHR concerns associated with the opening; and
- Any management recommendations made by First Nations regarding the sites or features associated with the opening.

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Invite an appropriate representative (as identified by the First Nation) to participate in field monitoring (see below).

Note: The steps described below may not be required if you work directly with First Nations to select cutblocks and (or) if First Nations take responsibility for identifying CHR sites or features using their own data.

1. **Determine which First Nations and (or) Tribal administrations have asserted interests overlapping with each opening.** List this information in Section 3 on Form and/or Card C.

2. **Attempt to contact the First Nation(s) and (or) Tribal administration in person rather than by email or a letter.** The most appropriate format for these discussions will vary considerably across districts and First Nations. The discussion format will strongly depend on the Nation's, band's, or Tribal administration's familiarity with FREP, their working relationship with the FLNRO, and any unique decision-making processes they have established. A phone call may be sufficient in some cases, in others, a meeting to jointly discuss the monitoring process and site selection may be more appropriate.

Important considerations or Discussion Points

- **Ensure that the Nation is familiar with FREP.** If not, you may need to provide a brief description of the program or provide recourses that supply further information.
- **Discuss the CHR sites and features of which you are aware.** Ask whether any additional sites or features associated with the opening should be assessed in the field. If so, document these sites following the steps described above.
- **Discuss any management recommendations that the First Nation made** before harvesting, to whom these recommendations were communicated (i.e., company or FLNRO staff), and whether these recommendations were documented. If documentation exists, request a copy of the relevant document(s).
- **Explain that an appropriate representative from the community is invited to participate in the field monitoring process.** This individual should be identified by the First Nation.

Identifying an "Appropriate Community Representative"

□ Tip: For districts in which candidate sample cutblocks or openings are identified before contacting First Nations, complete this step for all openings before contacting First Nations. You may be able to discuss multiple blocks or openings at the same time!

□ Tip: Ensure that your correspondence with First Nations is well documented, including who was involved in the communication, dates, and any important requests made by the First Nation.

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

For consultation and referrals, your district has regular contact people in each First Nation. These are often natural resources workers, forestry workers, or people who hold a similar portfolio. In some cases, it may be the Chief or another Council member. Discuss with these individuals who would be the best person to join you in the field to complete field assessments.

In many First Nations, traditional governance structures are still in place. For example, Hereditary chiefs, House leaders, or Keyoh holders may maintain authority over land management decisions affecting their traditional lands. In these cases, it may be appropriate to request that these traditional land holders participate in field assessments.

Proponents

In many instances, the site plan or SP does not indicate whether CHRs were actively managed on a site. This is often the case when an original cutblock boundary has been modified to avoid an entire area or feature(s), or alternative harvesting or silviculture strategies have been modified to protect CHRs.

1. **Contact the proponent responsible for the cutting permit.** Discuss any management strategies planned to conserve or protect CHRs on the cutblock. Ensure that you ask whether the original cutblock boundary was modified to conserve CHRs. Document your findings in the space provided in Section 3 on Form A and/or Form C.

In some instances, the original license may have changed hands and it may not be possible to reach the company responsible for harvesting or road-building activities. Document this information in the space provided.

(g) Pest Management History

First Nations have raised wide-ranging human and environmental health concerns related to pesticide or herbicide application in the vicinity of gathering, hunting, or fishing areas. In 2007, the Integrated Pest Management team (Ministry of Environment) held a series of First Nations Regional Engagement Workshops across the province to discuss these issues.¹⁶

¹⁶ Detailed workshop notes are available at:
http://www.env.gov.bc.ca/epd/ipmp/first_nations_cons_guide/regional_workshops/cranbrook.htm

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*



Cultural Heritage Resource Value
Resource Stewardship Monitoring

Form B Side 2
SITE FORM
(complete 1 per feature)

5. Management Effectiveness (field portion) ☐ Unable to locate the feature	
For composite features: ☐ One mgmt. strategy used for all features ☐ Different mgmt. strategies used ☐ N/A (individual feature)	
Check all that apply:	
☐ No management of the site or feature	☐ partially conserved in permanent reserve type: _____
☐ Modified block boundary to avoid the feature	☐ Fully conserved in permanent reserve type: _____
☐ Retained a buffer of _____ m around site or feature	☐ Partially conserved in temporary reserve type: _____
☐ Completed crown or stand modification	☐ Fully conserved in temporary reserve type: _____
☐ Dated the feature	☐ Retained in harvest area – no buffer
☐ Left standing where safe to do so	☐ Stumped (some / all) CMT(s) above scars
☐ Altered silviculture activities	☐ Other: _____
Q1 Is there evidence of damage to the site or feature? ☐ Yes ☐ No	
Q2 Where damage has occurred, what is the most likely cause?	
☐ Damage from harvesting activities ☐ Damage from road building ☐ Site modification for safety reasons	
☐ Damage from silviculture activities ☐ Damage from windthrow (see additional windthrow questions below)	
☐ Fire ☐ Other _____	
Description of damage (where applicable): _____	
Q3 Has the site been irreversibly damaged or rendered unsuitable for continued use? ☐ Yes ☐ No ☐ Don't know	
Windthrow management ☐ N/A Was there sufficient retention around the feature? ☐ Yes ☐ No	
Was a windfirm edge established during harvesting? ☐ Yes ☐ No	
Windthrow management techniques applied: ☐ None ☐ Retention buffer	
☐ Topping ☐ Pruning ☐ Feathering ☐ Other: _____	
Trail Features: ☐ N/A Can the trail still be located? ☐ Yes ☐ No	
With respect to harvest Is there evidence of damage? ☐ Yes ☐ No	
and/or road related Has the trail been made less passable? ☐ Yes ☐ No	
impacts: Estimated % of trail length in or adjacent to the block with evidence of damage: _____%	
6. Feature Summary Observations	
Q4 Were there operational factors that limited CHR management options for this feature? ☐ Yes (please describe) ☐ No	
Q5 Were there management strategies and/or practices used for this feature that were particularly effective? ☐ Yes (please describe) ☐ No	
Q6 Are there management strategies and/or practices that could have been used to reduce the impact on this CHR feature? ☐ Yes (please describe) ☐ No	
Q7 To what extent did practices for this feature maintain CHR value(s) given the recommendations and opportunities that were available? ☐ very poorly ☐ poorly ☐ moderately ☐ well ☐ very well ☐ don't know Rationale: _____	
☐ Additional comments on Form C	

FS 1358B HFP 2011/05

PAGE 2

In some FLNRO districts, a voluntary pesticide ban may be in place, and pesticide and herbicide applications may not occur.

1. Record any information your district has on the pest management history for each opening on Form C.

Step 4 – Completing the Field Checklist Part 2: Field Procedures

In the field, you will fill out Section 4 on Form A, and Sections 5 and 6 on Form B. Note that any additional comments may be recorded on Form C.

(h) Locating Cultural Heritage Sites and Features in the Field

1. Locate and assess forestry and road-building impacts to all known sites in the opening. This will be

more difficult if the exact location of cultural sites is not known. Start by navigating tone of the sites with known co-ordinates (UTM or latitude/longitude) and plan an efficient route to the remaining sites from there.

2. For known sites with unknown locations, systematically cover the candidate areas that you highlighted during your office mapping exercise. If you are unable to locate the site, check the appropriate box in Section 5, document your efforts in the comments section, and mark the areas you searched in as much detail as possible on your site map.

(i) Assessing Management Effectiveness

1. **Revisit your previous decision to either evaluate the feature individually or as a composite feature.** Does it still make sense? Ensure that you have one Form B for each composite and (or) individual feature.
2. **Determine what management strategy was used to conserve or protect the feature.** Check all boxes that apply.

Path Reserves or Retention Areas

Consider a patch reserve “temporary” if there is a possibility that it might be harvested before the end of the rotation.¹⁷

Retention Area Codes:

First letter

First letter designations for retention areas are:

- P = patch reserves – no harvesting in the stratum (other than removal of trees from patch likely done for safety reasons).
- D = dispersed retention reserves – harvest occurred in the stratum and there are trees larger than 12.5 cm dbh.

Second letter

Second letter designations are:

- T = temporary, if there is a plan to harvest the retention prior to rotation end. Retained dispersed trees in a commercial thinning operation are considered temporary.
- R = riparian, if there are any riparian areas (either RRZ or RMA) in the stratum and reserve expected to be maintained for the full rotation.
- W = wildlife tree, if the SP or SP map note a wildlife or biodiversity purpose for the retained trees and reserve expected to be maintained for the full rotation.
- = other.

¹⁷ These codes are consistent with those used in the FREP Stand-Level Biodiversity Protocol (Province of British Columbia 2008)

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

- U = unidentified.
 - C = cultural.
1. **Note any operational factors that may have limited the management options for individual cultural sites or features (in Section 6, Form B – optional) or for the cutblock as a whole (in Section 4, Form A).** For example: limited operationally feasible slope positions for road and timber processing areas; difficulty in establish a windfirm buffer (e.g., in areas heavily affected by mountain pine beetle with high concentrations of standing dead timber, etc.).
 2. **Assess whether visible damage to the site or feature is evident, and determine the most likely cause of this damage (Section 5, Form B).** Discuss with your team whether the site has been irreversibly damaged or rendered unsuitable for continued use.
 - **Windthrow:** If the damage you observe is due for windthrow, then ensure you answer the additional questions listed for “windthrow management”. If you observe insufficient retention around the feature (i.e., you answered “no” to this question), then provide justification in the comments section.
 - **Trails:** If you are assessing a cultural trail, ensure that you answer the additional questions listed for “trail features”. To get a sense of the relative magnitude and impact of the damage, you are asked to estimate the percentage of the total trail length in, or adjacent to, the cutblock showing evidence of damage. For example, if 10 m of a 10-km trail is rendered impassable, then the impact may be proportionally less than if 2 km of a 2.4-km trail is damaged or rendered impassable.
 3. **Provide any recommendations for alternative management strategies or practices that could have been used** to better protect the site or feature you are assessing. For example, if a downed CMT is was left standing without a buffer in a wind-prone area, what other practicable management strategy (if any) could have been used to better protect the feature?

Note on Innovative Practices¹⁸

Innovative: ahead of the time . . . something new or unusual.

In the comments section on Form A, (section 4), Form B, (section 6) or Form C, make special note of any new or unusual practices used to manage CHR sites or features. This information will help identify new or unusual practices implemented in various areas of the province, and may lead to more specific evaluations of a particular practice to determine effectiveness and ultimately to communicate this information to practitioners.

¹⁸ Adapted from FREP Stand-level Biodiversity Protocol (Province of British Columbia 2008)

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

(j) Photos

Pre-harvest Photographs

1. **List any pre-harvest photographs of CHRs that you have access to.** For example, some First Nations may have taken photographs of CHRs during a pre-harvest field assessment or CMT survey. These may help to assess post-harvest management effectiveness or to locate sites or features in the field. Provide a detailed description of where the photograph was taken from, and list the co-ordinates if known.

Example description *photo taken 1—m from road intersection on SW corner of block facing NNE.*

Post-harvest Photographs

If damage to CHRs is observed, take photographs of the site or feature to back up your observations and to use as a communication tool when discussing your findings with First Nations, decision makers in your district, proponents, or the Archaeology Branch.

2. **In the table provided, list all post-harvest photographs taken on Form C.** Take a GPS co-ordinate at the location where the photograph was taken, and provide a detailed description of what is seen in the photograph.

Documenting Previously Unrecorded Sites

In an increasing number of cases, non-professionals outside of the archaeological permitting process are completing PFR assessments. Known sites identified through PFR are not always reported to the Archaeology Branch, and are therefore unrecorded in the provincial inventory. CHR sites are typically not captured or recorded during standard archaeological field surveys. As well, only a small proportion of British Columbia First Nations have completed a TUS or similar study due to limited capacity, and only a handful of First Nations have the opportunity and (or) resources to complete regular pre-harvest CHR assessments before harvesting in their traditional territories. In short, many CHR sites and features remain unrecorded by either the provincial government or First Nations.

During a FREP field evaluation, you may encounter sites that were previously unrecorded and that you were therefore unaware of before going into the field. Some sites or features that may be immediately visible to a non-archaeologist include:

- Culturally modified trees

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

- Rock art, including pictographs and petroglyphs
- Surface features such as depressions created by former habitations, earthen fortifications, rock cairns, fish traps, and clam gardens
- Artefacts that have become visible on the land surface owing to erosion or recent land-altering activities; these artefacts may be produced in materials such as stone, bone, antler, wood, or shell
- Buried cultural remains that may be sighted in a cutbank, excavation, eroded shoreline, or other exposed deposit

To help conserve or protect these sites, records of these sites or features should form part of the provincial archaeological site inventory and local First Nations' inventories of CHR sites and features.

New archaeological site records must meet minimum content and format standards to be entered into the provincial inventory. These minimum standards ensure that enough information is contained in the site record to form a basis for appropriate archaeological resource management action. For cultural sites not protected under the HCA, these minimum standards focus on knowing the size and location of the site, the accuracy of spatial information, and a cursory description of the site type and contents.

The Archaeology Branch (MTCA) has prepared several bulletins that outline procedures for recording detailed archaeological site information in the field.¹⁹ No similar documents are available to explain the record of information about CHRs not protected under the HCA. Therefore, as part of this protocol, you are asked to collect basic location, descriptive information, and photographs for all new sites encountered during FREP surveys; however, you are not required to fill out the detailed Archaeology Site Inventory Form used by professional archaeologists.

1. **When you encounter a previously unrecorded CHR site in the field, follow all the previously described steps in this protocol to evaluate the management effectiveness for the site.** In doing so, you will collect most of the critical information required for recording new archaeological or other CHR sites. For all new sites, ensure that you collect the additional information described below.

¹⁹ See <http://www.tca.gov.bc.ca/archaeology/bulletins/>

Recording Culturally Modified Trees

Information about CMTs is recorded at two levels. Level 1 recording is intended to document information about CMT sites rather than the individual trees that make up the site (B.C. Ministry of Small Business, Tourism and Culture 2001). At this level, recording documents the presence of CMTs on a given site, including the location, type, and frequency. Level 1 recording is used if detailed information about all individual CMTs cannot be recorded in the time available to you. If time and expertise allow, document as much information as possible about individual CMTs (formerly referred to as Level II CMT recording).

Basic information about CMT site should be recorded on a **Level I CMT Site Recording Form** according to guidelines in the CMT Handbook (B.C. Ministry of Small Business, Tourism and Culture 2001:89-90). Ensure that you have printed copies of the Level I CMT forms with you in the field.

If you have the time and skills to collect information on individual CMTs, use the **CMT Feature Recording Form** also found in the CMT Handbook (B.C. Ministry of Small Business, Tourism and Culture 2001:99). Detailed guidance on how to fill out this form is provide both in the handbook (B.C. Ministry of Small Business, Tourism and Culture 2001:95-106) and in Information Bulletin No. 16 (B.C. Ministry of Tourism, Sport and the Arts 2006).

All completed MCT forms for previously unrecorded CMTs should be submitted with your completed FREP checklists.

Recording Other Cultural Heritage Resource Sites

Rock Art

The following additional information about rock art sites should be recorded, where possible.

- Number of panels or designs
- General description of the motif(s) including dimensions and illustration(s)
- Colour
- Dimensions: Length and width (in metres)
-

Cultural Depressions and All Other Features

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

Cultural depressions occur as individual features or in groups. Old cache pits are often indicated by smaller and deeper (25 – 80 cm) depressions; much larger depressions may be remnants of pit houses.

For individual sites (e.g., one depression): measure length, width, diameter, and depth (in metres).
For a collection of features (e.g., multiple depressions): measure approximately length and width of the entire site (in metres), and record the total number of depressions in the site.

Important Note

Many British Columbia First Nations have established, or are working towards establishing, heritage policies, guidelines, agreements, bylaws, or protocols, with some implementing community-based cultural resource permitting or equivalent systems (Mason and Bain 2003; Budwha 2005). These efforts reflect the desire of many First Nations to have a more dominant role in the practice of archaeology and control over cultural resource management in their traditional territories (Nicholas 2006).

Find out whether any such programs operate in your forest district. Ensure you contact program representatives to determine whether there is interest in receiving data about new site encountered during FREP activities.

For all New Sites

In addition to submitting completed forms to the FREP RVTL, one copy of completed Level I CMT Site Recording form or CMT Feature Recording form, and (or) FREP CHR forms (for all other new features) should be submitted to:

- ✓ **Archaeology Branch** for entry into the Provincial Heritage Inventory:

Archaeology Branch
Ministry of Forests, Lands and Natural Resource Operations
PO Box 9816 Stn Prov Govt
Victoria BC V9W 9W3

- ✓ All **First Nations** with asserted traditional territory overlapping with the sample site.

Ensure that all of the following critical pieces of information are included in the submission.

- ✓ **Location:** Record accurate GPS co-ordinates of the site's location (in NAD83 or WGS84).

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

- ✓ **Number of individual features on a given site:** For example, record the total number of cultural depressions on a given site.
- ✓ **Site dimensions:** Describe fully (sketch recommended).
- ✓ **A detailed site map** with new features located as accurately as possible: Digital map submissions are strongly encouraged.
- ✓ **Photographs** of the site or feature: Include all relevant site identification information on any photographs submitted to the FREP team or the Archaeology Branch (i.e., tenure information, date of photo, direction of photo, recorder, contact information).
- ✓ **Average stand age:** Can assist in dating cultural features.

References

- Adam, M.C. and D. Kneeshaw. 2008. Local level criteria and indicators: A tool used to assess aboriginal forest ecosystem values. *Forest Ecology and Management* 255: 2024-2035.
- B.C. Ministry of Agriculture and Lands. 2007. Morice Land and Resource Management Plan. Integrated Land Management Bureau, Victoria, B.C.
http://ilmbwww.gov.bc.ca/slrp/lrmp/princegeorge/morice/plan/files/morice_lrmp_july_2007.pdf (Accessed October 1, 2008)
- B.C. Ministry of Small Business, Tourism and Culture. 2001. Culturally modified trees of British Columbia: a handbook for the identification and recording of culturally modified trees. Version 2. Archaeology Branch for the Resources Inventory Committee, Victoria, B.C.
<http://www.for.gov.bc.ca/hfd/pubs/docs/mr/Mr091?cmthandbook.pdf> (Accessed April 17, 2009).
- B.C. Ministry of Sustainable Resource Management. 2004. Resource analysis guide for sustainable resource management planning. Forests, Lands, and Marine Branch, Victoria, B.C.
http://ilmbwww.gov.bc.ca/slrp/srmp/Background/docs/RAG/RAG_Dec04.pdf (accessed March 10, 2009)
- B.C. Ministry of Tourism, Sport and the Arts. 2006. Using the archaeological site inventory form and detailed data table to record CMT features. Archaeology Branch, Victoria, B.C. Information Bulletin No. 16
http://www.tca.gov.bc.ca/archaeology/bulletins/recording_culturally_modified_trees.pdf (Accessed April 2009).

FREP

FOREST AND RANGE EVALUTION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

- _____. 2007. British Columbia archaeological resource management handbook for foresters. Archaeology Branch, Victoria, B.C.
http://www.tca.gov.bc.ca/archaeology/docs/handbook_for_foresters.pdf (Accessed March 10, 2009)
- Berkes, F. 1993. Traditional ecological knowledge in perspective: concepts and cases. J.T. Inglis (editor). International Development Research Centre, Canadian Museum of Nature, Ottawa, Ont.
- Berkes, Fikret 1999. Sacred Ecology: Traditional Ecological Knowledge and Resource Management. Taylor and Francis, Philadelphia, Penn.
- Berkes, F. and I. Davidon-Hunt. 2006. Biodiversity, traditional management systems, and cultural landscapes: examples from the boreal forest of Canada. *International Social Science Journal* **58**(187): 35-47.
- Budwha, R. 2005. An Alternative Model for First Nations Involvement in Resource Management Archaeology. *Canadian Journal of Archaeology* 29(1): 20-45.
- Charnley, S.A., Paige Fisher, A. and E.T. Jones (2007). Integrating traditional and local knowledge into forest biodiversity conservation in the Pacific Northwest. *Forest Ecology and Management* **246**: 14-28.
- Chehalis Band and Chilliwack Forest District. 2008. Kweh-Kwuch-Hum (Mt.Woodside): Spiritual Areas and Forest Management. A Policy Pilot Project by the Chehalis Indian Band and the Chilliwack Forest District. Final report, June 2008.
<http://www.for.gov.bc.ca/dck/Stewardship/KKH%20Final%20Report.pdf> (accessed March 10, 2009)
- Council of the Haida Nation (2004). Haida Gwaii Yah'guudang (*respect for this place*): Haida Land Use Vision. Council of the Haida Nation, Haida Gwaii, B.C.: 18 pp.
- Garibaldi, A. and N.Turner. 2004. Cultural Keystone Species: Implications for Ecological Conservation and Restoration. *Ecology and Society* **9**(3)
<http://www.ecologyandsociety.org/vol9/iss3/art1/main.html#concept> (accessed March 10, 2009)
- Karjala, M.K., Sherry, E., and S.M. Dewhurst. 2002. Criteria and indicators for sustainable forest planning: a framework for recording Aboriginal resource and social values. *Forest Policy and Economics* **6**: 95-110

FREP

FOREST AND RANGE EVALUATION PROGRAM

Scientifically Valid Evaluations of Forest Practices under the *Forest and Range Practices Act*

- Lepofsky, D. and K. Lertzman. 2008. Documenting ancient plant management in the northwest of North America. *Botany* **86**(2): 129-145
- Mason, A. and D. Bain. 2003. The Evolution of British Columbia's Heritage Environment: An overview and discussion of First Nations issues. Final report submitted to the Union of B.C. Indian Chiefs. Golder Associates, Burnaby, B.C. http://www.ubcic.bc.ca/files/PDF/REP-0429-final_draft.pdf (accessed March 10, 2009)
- Moller, H., Berkes, F., Lyver, P.O., and M. Kislalioglu. 2004. Combining Science and Traditional Ecological Knowledge: Monitoring Populations for Co-Management. *Ecology and Society* **9**(3): 2. <http://www.ecologyandsociety.org/vol9/iss3/art2/>
- Nicholas, G.P. 2006. Decolonizing the archaeological landscape: The practice and politics of archaeology in B.C. *North American Indian Quarterly* **30**(3/4): 350-380
- Peacock, S.L. and N.J. Turner (2000). "Just like a garden": traditional resource management and biodiversity conservation on the Interior Plateau of British Columbia In Bio. In: Biodiversity and native America. Minnis, P.E., Elisens, W.J. (editors). University of Oklahoma Press, Norman, Okla., pp. 133-179
- Province of British Columbia (2008). Protocol for Stand-level Biodiversity Monitoring: Steps for field data collection and administration. Forest and Range Evaluation Program. B.C. Ministry of Forests and Range and BC Ministry of Environment, Victoria, B.C. http://www.for.gov.bc.ca/hfp/frep/site_files/indicators/Indicators-SLBD-Protocol-2008.pdf (Accessed January 2009)
- Simeone, T. 2004. Indigenous Traditional Knowledge and Intellectual Property Rights. Political and Social Affairs Division, Library of Parliament, Ottawa, Ont.
- Stephen, S. 2000. Handbook for culturally responsive science curriculum. Alaska Science Consortium and the Alaska Rural Systemic Initiative, Fairbanks, Alaska. <http://www.ankn/uaf/edu/publications/handbook/handbook.pdf> (Accessed April 2009)
- Tobias, T. (2000). Chief Kerry's Moose: A guidebook to land use and occupancy mapping, research design and data collection. A joint publication of the Union of BC Indian Chiefs and Ecotrust Canada, Vancouver, BC. http://www.ecotrust.org/publications/Chief_Kerrys_Moose.pdf (Accessed January 2009).

- Trusler, Scott, and Leslie Main Johnson (2008). "Berry Patch" As a Kind of Place—the Ethnoecology of Black Huckleberry in Northwestern Canada. *Human Ecology: An Interdisciplinary Journal* 36 (4): 553-568.
- Turner, N.J. and K. Turner. 2008. "Where our women used to get the food": cumulative effects and loss of ethnobotanical knowledge and practice; case study from coastal British Columbia. *Botany* **86**: 103-115
- Turner, N. J. and W. Cocksedge. 2001. Aboriginal Use of Non-Timber Forest Products in Northwestern North America: Applications and Issues. *Journal of Sustainable Forestry* **13**(3/4): 31-60
- United Nations. 1992. Convention on Biological Diversity. New York, N.Y. Article 8: In-situ conservation. <http://www.cbd.int/convention/articles.shtml?a=cbd-09> (Accessed April 2009).
- Wyatt, S. (2008). First Nations, forest lands and "aboriginal forestry" in Canada: from exclusion to co-management and beyond. *Canadian Journal of Forest Research* **38**(2):171-180