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*Expanded version for public review*

## **Forest Stewardship Plan 2010 – 2015**

**Harrop-Procter Community Co-operative  
Long Term Community Forest Agreement K1B**

*Submission for review and comment*

**March 2010**

Expanded explanatory text—shown in blue throughout this document—has been added to HPCC’s FSP which has been submitted for 60-day review and comment from March 12 to May 12, 2010. This additional text is provided for general information only. It may assist the reader in understanding the Forest and Range Practices Act and related Regulations that apply to this FSP. Some sections of blue text also help outline HPCC’s approach to addressing some of the forest values in our community forest.

**HPCC Directors’ signatures:**

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**RPF signature and seal:**

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- Appendix A: Stocking Standards**
- Appendix B: Map**
- Appendix C: Review and Comments**

## Acronym Definitions

Inevitably, there are many acronyms used in this document. Here's a list:

CWS	community watershed
ECA	equivalent clearcut area
FDU	Forest Development Unit
FPPR	Forest Planning and Practices Regulation
FRPA	Forest and Range Practices Act
FSP	Forest Stewardship Plan
GAR	Government Actions Regulation
HLPO	Kootenay Boundary Higher Level Plan Order
ILMB	Integrated Land Management Bureau
KLFD	Kootenay Lake Forest District
LRDW	Land and Resource Data Warehouse
LU	Landscape Unit
MOFR	Ministry of Forests and Range
MAL	Ministry of Agriculture and Lands
MOE	Ministry of Environment
MOTCA	Ministry of Tourism, Culture and the Arts
OGMA	Old Growth Management Area
QRP	Qualified Registered Professional
POD	Point of Diversion
RMA	riparian management area
RMZ	riparian management zone
RMZO	Resource Management Zone Objective
RPF	Registered Professional Forester
RRZ	riparian reserve zone
VQO	Visual Quality Objective
WHA	Wildlife Habitat Area
WTRA	Wildlife Tree Retention Area

# 1 Introduction

## 1.1 Description of the Forest Stewardship Plan Area

This Forest Stewardship Plan applies to the Harrop-Procter Community Co-operative's Community Forest Agreement K1B (Figure 1). The area includes the Harrop Creek, Slater Creek, Alyeo Creek, Narrows Creek, Procter Creek, Carson Creek, and Irvine Creek drainages as well as associated smaller face units. This area has important community and domestic water resources as well as many biodiversity, wildlife, cultural, scenic and recreational values.

## 1.2 Term of the Forest Stewardship Plan

The term of this Forest Stewardship Plan is five years from the date of approval.

# 2 Other Plans

This FSP area is subject to the Kootenay Boundary Higher Level Plan Order (HLPO), which came into effect on October 26, 2002, along with its subsequent variances. The HLPO objectives have been developed specifically for this region and take precedence over objectives set by government under the Forest and Range Practices Act and the Forest Planning and Practices Regulation where they conflict.

This FSP is designed to be consistent with the HPCC Management Plan currently in effect. The HPCC Management Plan may be amended or replaced during the term of this FSP without necessarily requiring an amendment to this FSP.

# 3 Forest Development Units

Forest Development Units identify areas in which the agreement holder may conduct primary forest activities. FDU's have common values, objectives and practice requirements.

There is one FDU that contains the entire Harrop-Procter area. The boundary of the FDU is shown in Figure 1 and on the map in Appendix B.

*Table 1: Forest Development Unit.*

<b>FDU No.</b>	<b>FDU Name</b>	<b>Forest District</b>	<b>Landscape Unit</b>	<b>Gross Area (ha)</b>
<b>1</b>	<b>Harrop-Procter</b>	<b>Kootenay Lake</b>	<b>K09</b>	<b>11,364</b>
<b>Total</b>				<b>11,364</b>



*Figure 1: Overview map of Harrop-Procter FDU*

## 4 FRPA Values, Objectives, Results/ Strategies, and Practice Requirements

The provincial government has identified eleven resource **values** in legislation to which government may assign objectives. The identified resource values include soils, timber, wildlife, water, fish, biodiversity, forage, cultural heritage resources, visual quality, recreation resources, and resource features.

The provincial government has established **objectives** for forest resource values in legislation, regulations or approved higher level plans under FRPA or other acts that affect land management.

<b>Land Use Objectives in Kootenay Boundary Higher Level Plan Order (HLPO)</b>
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<b>Objectives Set by Government</b>
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<b>Objectives Enabled by Regulation</b>
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To facilitate implementation of objectives government has established **Practice Requirements** and/or provisions for the development of Agreement holder **Results and/or Strategies**, or combinations thereof, to be defined with the FSP.

**Strategies** mean a description of:

- a) measurable or verifiable *steps or practices* that will be carried out to meet a particular established objective, and
- b) the situations or circumstances that determine where in an FDU the steps or practices will be applied.

**Results** mean a description of:

- a) measurable or verifiable *outcomes* for a particular established objective, and
- b) the situations or circumstances that determine where in an FDU the outcomes under (a) will be applied.

<b>Practice Requirements</b>
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<b>Agreement holder developed strategy / result</b>
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## 4.1 Soils

<b>Objective Set by Government for Soils</b>	
<b>Regulation</b>	FPPR Section 5 and 12.1 (1) Without unduly reducing the supply of timber from British Columbia's forests, to conserve the productivity and the hydrologic function of soils.
<b>Practice Requirements</b>	The agreement holder will undertake to comply with:
Soil disturbance limits	FPPR Section 35 Soil disturbance limits for a cutblock: 10% of the gross area for non-sensitive soils, 5% for sensitive soils. Limits the roadside disturbance in any cutblock to 25%
Permanent access structure limits	FPPR Section 36 Limits permanent access structures (e.g., roads, permanent trails and landings) to 7% of the gross area of the cutblock.
<b>Practice Requirements</b>	The following sections apply:
Landslides	FPPR Section 37 The primary forest activity must not cause a landslide that has a material adverse effect.
Natural surface drainage patterns	FPPR Section 39 If an authorized person constructs a road, a temporary access structure or a permanent access structure on an area, the person must maintain natural surface drainage patterns on the area both during and after construction.
Revegetation	FPPR Section 40 Soil exposed by the construction or deactivation of a road must be re-vegetated within two years after the construction or deactivation is completed if erosion of exposed soil would result in sediment delivery to a stream.
<b>Regulation</b>	FPPR Section 5 and 12.1 (1)
<b>Applies to FDU</b>	Harrop-Procter

## 4.2 Timber

Land Use Objectives in Kootenay Boundary Higher Level Plan Order (HLPO)	
<b>HLPO RMZO 7: Enhanced Resource Development Zones</b>	Timber: this objective is not applicable to any FDU's in this FSP.  RMZO 7 creates enhanced timber development zones. This objective does not apply to the Harrop-Procter area.
<b>HLPO RMZO 10: Social and Economic Stability</b>	The agreement holder is exempt from this objective. A letter of exemption from the District Manager is included in the Supporting Documents.
<b>Applies to FDU</b>	Harrop-Procter

Objectives Set by Government for Timber	
<b>Regulation</b>	FPPR Section 6 and 12(8) The objectives set by government for timber are to: <ul style="list-style-type: none"> <li>a) maintain or enhance an economically valuable supply of commercial timber from British Columbia's forests,</li> <li>b) ensure that delivered wood costs, generally, after taking into account the effect on them of the relevant provisions of this regulation and of the Act, are competitive in relation to equivalent costs in relation to regulated primary forest activities in other jurisdictions, and</li> <li>c) ensure that the provisions of this regulation and of the Act that pertain to primary forest activities do not unduly constrain the ability of a holder of an agreement under the Forest Act to exercise the holder's rights under the agreement.</li> </ul>
	Under FPPR Sec 12 (8) the agreement holder is exempt from the requirement to prepare a result or strategy for timber.
<b>Practice Requirements</b>	The following sections apply:
Modification of insect behaviour	FPPR Section 41  An agreement holder who uses trap trees or pheromones to concentrate insect populations must ensure that the insect brood is destroyed before the insects emerge.

Use of livestock	<p>FPPR Section 42</p> <p>If a person required to establish a free growing stand uses livestock for site preparation or brush control, the person must ensure that all necessary measures are taken to</p> <ul style="list-style-type: none"> <li>a) control the location and movement of the livestock to minimize conflict with wildlife that could prey on the livestock,</li> <li>b) prevent the transmission of disease from the livestock to wildlife, and</li> <li>c) maintain the health of the livestock</li> </ul>
Use of seed	<p>FPPR Section 43 and the “Chief Forester’s Standards for Seed Use” April 1, 2005</p> <p>Regulates the use and transferability of seed to ensure it is genetically suitable for the site.</p>
Free growing stands generally – stocking standards and regeneration date	<p>FPPR Section 44 (1)</p> <p>Requires HPCC to establish a free growing stand as per the approved KLFD stocking standards. Stocking standards include the preferred and acceptable species, target and minimum trees/ha, height above competing vegetation, etc.</p>
Free growing stands generally – stocking standards and free growing height	<p>FPPR Section 44 (2)</p> <p>Requires establishment of a stand if timber is harvested in trespass.</p>
<b>Applies to FDU</b>	<b>Harrop-Procter</b>

### 4.3 Wildlife

Land Use Objectives in Kootenay Boundary Higher Level Plan Order (HLPO)	
<b>HLPO RMZO 3: Caribou</b>	This order has been cancelled and replaced by GAR Order #U-4-012 (December 2009). <a href="#">(see below)</a>
<b>HLPO RMZO 5: Grizzly Bear Habitat</b>	Not currently applicable as grizzly bear areas have not yet been mapped.
<b>Applies to FDU</b>	Harrop-Procter

Objectives Set by Government for Wildlife	
<b>Regulation</b>	FPPR Section 7 The objective set by government for wildlife is, without unduly reducing the supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas, for <ul style="list-style-type: none"> <li>a) the survival of species at risk,</li> <li>b) the survival of regionally important wildlife, and</li> <li>c) the winter survival of specified ungulate species.</li> </ul>
Wildlife Habitat Areas, Ungulate Winter Range, Caribou GWM	The agreement holder is exempt from the obligation to specify a result or strategy in relation to an objective if a GAR Order has addressed the requirements of the objective. See <i>Objectives for Wildlife Enabled by Regulation</i> below.

**Agreement holder developed strategy**

Strategy for Species at Risk

FPPR Section 7(2) Notices have been enacted by the Minister Responsible for the Wildlife Act. The KLFD Notice provides indicators of the amount, distribution, and attributes of wildlife habitat required for the survival of species at risk in KLFD.

With the exception of mountain caribou, there are currently no inventoried sites of identified species at risk within the area covered by this FSP.

The following strategy will be followed with respect to species at risk:

1. Key personnel responsible for layout of primary forest activities will receive training every two years in the identification of species at risk and wildlife habitat attributes for species at risk in KLFD.
2. Observations of the above noted species will be recorded and referred to a QRP.
3. If the observation is confirmed as a species at risk, the Ministry of Environment will be notified and an appropriate course of action will be determined prior to implementation of primary forest activities.

HPCC's strategy for species at risk has been implemented for several years. The forest manager personally conducts all forest planning and layout, so there is no concern that untrained field staff will be unaware of HPCC's strategy for species at risk. HPCC has often consulted an RPBio when identifying potential habitat for species at risk.

Although grizzly bear habitat areas have not been officially designated by MoE and HPCC is thus requesting an exemption from HLPO Objective 5, HPCC has nonetheless undertaken mapping of grizzly bear habitat, and is committed to avoiding identified grizzly bear habitat areas in layout of forest operations.

There are currently no WHA's in Harrop-Procter. HPCC regularly checks for new or pending WHA's.

Caribou habitat is shown on the FSP map. HPCC's forest manager continues to stay current with new and pending caribou habitat mapping.

**Applies to FDU**

**Harrop-Procter**

<b>Objectives for Wildlife Enabled by Regulation</b>	
<b>Wildlife Habitat Areas</b>	There currently are no established Wildlife Habitat Areas (WHA's) within the FDU's of this FSP. However, should a WHA become established within a FDU, this FSP will be amended as necessary to address WHA objectives.
<b>Wildlife Habitat Features</b>	There are currently no established Wildlife Habitat Features (WHF's) within the FDU's of this FSP. However, should a WHF be identified within a FDU, the agreement holder will comply with applicable GAR Orders.
<b>Government Actions Regulation (GAR) Order - Amendment to Ungulate Winter Range #U-4-001 Feb 7, 2007</b>	<p>There are currently no established UWR for elk, moose, mule deer, and white-tailed deer within the FDU's of this FSP. However, should a new UWR become established within a FDU, this FSP will be amended as necessary to address new UWR objectives.</p> <p>Our landscape unit has been identified as a priority area for caribou habitat, and thus UWP objectives for other ungulates have been 'turned off' in favour of caribou. In other words, there is no legal requirements to manage for low elevation UWR. Regardless, most of HPCC's management is consistent with UWR habitat requirements.</p>
<b>Government Actions Regulation (GAR) Order - Ungulate Winter Range #U-4-012 Mountain Caribou - December 9, 2009</b>	<p>Primary forest activities planned by the agreement holder will be consistent with the requirements of the December 9, 2009 GAR Order #U-4-012 and the General Wildlife Measures contained therein.</p> <p>This GAR Order and Wildlife Measures protects an extensive area of identified caribou habitat. There is no logging permitted in this area.</p>
<b>Applies to FDU</b>	Harrop-Procter

## 4.4 Riparian Areas

<b>Objectives Set by Government for Water, Fish, Wildlife and Biodiversity within Riparian Areas</b>	
<b>Regulation</b>	<p>FPPR Section 8, 12(3) and 12.1(2)</p> <p>The objective set by government for water, fish, wildlife and biodiversity within riparian areas is, without unduly reducing the supply of timber from British Columbia's forests, to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.</p>
<b>Practice Requirements</b>	The agreement holder will undertake to comply with:
Stream riparian classes	<p>FPPR Section 47 (1-3) (5-7)</p> <p>Establishes stream riparian classes and widths of various reserve zones and management zones depending on the size of the stream.</p>
Wetland riparian classes	<p>FPPR Section 48</p> <p>Establishes wetland riparian classes and widths of various reserve zones and management zones depending on the size of the wetland.</p>
Lake riparian classes	<p>FPPR Section 49</p> <p>Establishes lake riparian classes and widths of various reserve zones and management zones depending on the size of the lake.</p>
Restrictions in a riparian management area	<p>FPPR Section 50</p> <p>Establishes restrictions on road construction and maintenance in riparian management areas.</p>
Restrictions in a riparian reserve zone	<p>FPPR Section 51</p> <p>This section identifies what activities may take place in a riparian reserve zone. No logging is permitted in riparian reserve zones except e.g. as required for safety, constructing a designated crossing, removing damaged or diseased trees, or establishing a recreation site or trail.</p>

**Agreement holder developed strategy (alternative to FPPR Section 47(4), 52(2)), and 53):**

<b>Riparian Class</b>	<b>Riparian Management Area (metres)</b>	<b>Riparian Reserve Zone (metres)</b>	<b>Riparian Management Zone (metres)</b>
<b>S1-A</b>	100	<b>50</b>	50
<b>S1-B</b>	70	50	20
<b>S2</b>	50	30	20
<b>S3</b>	40	20	20
<b>S4</b>	30	<b>10</b>	20
<b>S5</b>	30	<b>10</b>	20
<b>S6</b>	<b>30</b>	<b>10</b>	<b>20</b>

Several of the RRZ and RMZ widths for classified streams in HPCC’s FSP are greater than the minimums prescribed in FPPR Section 47(4). HPCC has prescribed 10 meter RRZ’s on S4, S5, and S6 streams, and a minimum RMA of 30 meters on all streams.

The RRZ and RMA widths provided in HPCC’s FSP are the minimum widths that can be considered consistent with HPCC’s approved Management Plan and with Long-term Community Forest Agreement K1B. HPCC has a very clear primary mandate to protect water quality by using a precautionary approach to riparian protection, and has consistently committed in planning documents to RRZ’s on all classified streams. Almost every stream in Harrop-Procter is in a domestic or community watershed. The 30 meter RMA width is consistent with the HLPO definition of a 30 meter “steamside management zone” on consumptive use streams.

Non-classified drainages (NCD’s) will be protected by various site-specific measures that will be described in HPCC Site Plans (e.g., high retention and/or machine-free zones).

**Agreement holder developed strategy (to address FPPR Section 12(3)—Riparian Management Zone strategy):**

**For all classes of streams, wetlands and lakes:**

<i>RMZ containing live timber that is not imminently threatened by a forest health agent (insect or disease)</i>	<i>RMZ where &gt;40% of the basal area of timber is dead or is in imminent danger of being killed by a forest health agent (insect or disease)</i>
Retain a minimum of 60% of original stand live basal area	Retain all live, windfirm trees that are not in imminent danger of being killed by a forest health agent

Prior to a primary forest activity in a RMZ, retention levels and patterns within the RMZ will be established by a QRP, considering such factors as:

- tree species composition
- soils
- hydrology
- risk of erosion/mass wasting
- tree windfirmness
- wildlife habitat
- operational constraints
- damage or imminent threats to the stand
- other site specific factors the QRP deems important

The spatial pattern of prescribed retention may vary throughout the RMZ, and may include single trees and/or clumps of trees. The levels of retention may vary from the above targets to address site-specific conditions as determined by a QRP.

HPCC's RMZ strategy provides for 60% retention in RMZ's where the timber is not threatened by forest health agents. The risk of windthrow often increases considerably when less than 60% of the stand is retained; the HPCC RMZ strategy is designed to provide sufficient retention in RMZ's to minimize the risk of blowdown. In RMZ's where >40% of the basal area of timber is dead or is in imminent danger of being killed by a forest health agent, then HPCC will retain all live, windfirm trees that are not in imminent danger of being killed by a forest health agent. This strategy allows HPCC the ability to address both forest health and windfirmness factors in RMZ's.

<b>Practice Requirements</b>	The following sections apply:
Fan destabilization	FPPR Section 54 The licensee will not cause alluvial fan (stream outwash) destabilization (primarily for the coast).
Stream crossings	FPPR Section 55 When building a road or other access structure HPCC must locate, build and use in a manner that protects the stream channel and stream bank immediately above and below the stream crossing, and protects the stream channel and stream bank immediately above and below the stream crossing. A temporary crossing must be removed after use.
Fish passage	FPPR Section 56 HPCC must ensure that the primary forest activity does not have a material adverse effect on fish passage in a fish stream.

Protection of fish habitat	FPPR Section 57 HPCC must conduct the primary forest activity at a time and in a manner that is unlikely to harm fish or destroy, damage or harmfully alter fish habitat.
Use of livestock in riparian areas	FPPR Section 58 Places certain restrictions on the use of livestock in riparian areas. This refers to livestock being used for brush control or silviculture treatments.
<b>Applies to FDU</b>	Harrop-Procter

#### 4.5 Fish Habitat in Fisheries Sensitive Watersheds

<b>Objective Set By Government for Fish Habitat in Fisheries Sensitive Watersheds:</b>	
<b>Regulation</b>	FPPR Section 8.1
<b>Practice Requirements</b>	Currently there are no fisheries sensitive watersheds in the FDU's, therefore section 8.1 of the FPPR does not apply to this FSP.  "Fisheries sensitive watersheds" is a government designation. There are no such designated watersheds in our area. For stream and riparian protection generally, see Section 4.4 above.
<b>Applies to FDU</b>	Harrop-Procter

## 4.6 Water—community watersheds and consumptive use streams

### 4.6.1 Community Watersheds

The FSP area includes the **Procter Creek** community watershed.

<b>Objectives Set by Government for community watersheds</b>	
<b>Regulation</b>	FPPR Section 8.2 The objective set by government for water being diverted for human consumption through a licensed waterworks in a community watershed is to prevent the cumulative hydrological effects of primary forest activities within the community watershed from resulting in a material adverse impact on the quantity of water or the timing of the flow of the water from the waterworks.
<b>Practice Requirements</b>	The agreement holder will undertake to comply with:
Protecting water quality	FPPR Section 59 HPCC must ensure that the primary forest activity does not cause material that is harmful to human health to be deposited in, or transported to, water that is diverted for human consumption by a licensed waterworks.
Licensed waterworks	FPPR Section 60(2) HPCC must not harvest timber or construct a road in a community watershed if the timber harvesting or road construction is within a 100 m radius upslope of a licensed waterworks where the water is diverted for human consumption.
Excavated or bladed trails	FPPR Section 61 HPCC must ensure that trail construction does not cause sediment that is harmful to human health to enter a stream, wetland or lake from which water is being diverted for human consumption by a licensed waterworks.
<b>Practice Requirements</b>	The following sections apply:
Use of livestock in riparian areas	FPPR Section 58
Licensed waterworks	FPPR Section 60 (1) HPCC must ensure that the primary forest activity does not damage a licensed waterworks.
Roads in a community watershed	FPPR Section 62 Regulates potential interference with the subsurface flow path of a drainage area that contributes to a spring that is a source of water for a licensed waterworks.
Use of fertilizers	FPPR Section 63 Regulates the use of fertilizers for silviculture treatments in a community watershed. (HPCC does not use fertilizers.)

<b>Practice Requirements</b>	The following section does not apply:
Community Watersheds and water quality objectives	<p>GAR Section 8 – No water quality objectives have been established.</p> <p>There are no officially designated water quality objectives in our area. Nonetheless, we expect water quality to be high, and we have a water monitoring program in place to test water quality on Narrows and Harrop Creeks.</p>
<b>Agreement holder developed strategy for community watersheds:</b>	
Watershed assessment	<p>Prior to an primary forest activity in a Community Watershed that will create an opening greater than 1 ha in size, a watershed assessment will be completed by a QRP that considers:</p> <ul style="list-style-type: none"> <li>• Cumulative hydrological effects including such factors as ECA, road density, stream channel assessment, sediment sources, terrain stability, hazard and risk interpretations and other factors as deemed necessary by the QRP.</li> <li>• Other issues as deemed necessary by the agreement holder or QRP.</li> </ul> <p>The agreement holder will ensure that primary forest activities are consistent with the recommendations of a watershed assessment as determined by a QRP.</p> <p>The only community watershed in Harrop-Procter is Procter Creek. Other than minor maintenance of pre-existing roads, HPCC has no current or planned operations in the Procter Creek watershed.</p>
<b>Applies to FDU</b>	Harrop-Procter

#### 4.6.2 Consumptive Use Streams/ Domestic Use Watersheds

The FSP area contains numerous licensed water intakes on streams and springs.

Land Use Objectives in Kootenay Boundary Higher Level Plan Order (HLPO)	
Measures to address HLPO 6	
<b>HLPO RMZO 6: Consumptive Use Streams</b> Provides protection requirements for small consumptive use streams. Note: The HLPO uses the term <i>streamside management zone</i> to describe a minimum 30-meter wide management zone around all consumptive use streams. As the HLPO has precedence, this section uses the HLPO terminology.	<p>The agreement holder will follow the HLPO Objective 6.</p> <ul style="list-style-type: none"> <li>• Retention of trees within the streamside management zone (as defined in the HLPO) will comply with the practice requirements and strategies in Section 4.4 of this plan.</li> <li>• Except for roads and designated skid trails, ground-based equipment is restricted from operations in the streamside management zone.</li> <li>• Cable harvesting within a streamside management zone will utilize techniques to minimize soil disturbance.</li> <li>• Stream channels will be cleaned of harvesting debris immediately following harvesting.</li> </ul>
Practice Requirements	The agreement holder will undertake to comply with:
Protecting water quality	<p>FPPR Section 59</p> <p>HPCC must ensure that the primary forest activity does not cause material that is harmful to human health to be deposited in, or transported to, water that is diverted for human consumption by a licensed waterworks.</p>
Practice Requirements	The following sections apply:
Licensed waterworks	<p>FPPR Section 60 (1)</p> <p>HPCC must ensure that the primary forest activity does not damage a licensed waterworks.</p>

**Agreement holder developed strategy for domestic watersheds:**

Licensed waterworks— locating points of diversion (POD) and consulting water licensees

Prior to the submission of a cutting permit or road permit in a domestic use watershed, the agreement holder will:

- Seek the current information for POD’s from the Ministry of Environment, Water Stewardship Division’s “Water Agreement holders Web Query” database and LRDW
- Map the POD (s) that may be affected by a primary forest activity
- Contact any potentially affected water agreement holder to ensure accuracy of the POD information
- Locate POD on the ground if deemed necessary by a QRP
- Notify and consult with potentially affected water agreement holders with regards to planned primary forest activities
- Ensure water agreement holder comments are considered when planning primary forest activities.

HPCC’s strategy for domestic watersheds commits HPCC to locating POD’s and to consulting with water licensees. This has always been standard practice for HPCC. Prior to road and block development, HPCC field locates and maps consumptive use streams and POD’s that may not be accurately shown on LRDW maps. HPCC maintains an up-to-date list of water licensees and consults with water licensees on all proposed road and block developments.

HPCC’s domestic watershed strategy also includes detailed restrictions on harvesting within a 100 meter radius of a licensed waterworks, and commits HPCC to the same requirements for excavated and bladed trails in domestic watersheds as for excavated and bladed trails in community watersheds.

As a result, domestic watersheds are treated in a similar manner to community watersheds, and helps ensure a consistent, precautionary approach to maintaining water quality, quantity, and timing of flow in all consumptive use streams in Harrop-Procter.

Watershed assessment

Prior to an primary forest activity in a domestic watershed that will create an opening greater than 1 ha in size, a watershed assessment will be completed by a QRP that considers cumulative hydrological impacts of existing and proposed development and any other factors as deemed necessary by the QRP.

The agreement holder will ensure that primary forest activities are consistent with the recommendations of a watershed assessment as determined by a QRP.

<p>Licensed Waterworks— restrictions on activities within 100 meter radius upslope</p>	<p>The agreement holder will not harvest timber in a domestic use watershed within a 100 m radius upslope of a licensed waterworks where the water is diverted for human consumption, unless the timber harvesting will not increase sediment delivery to the water intake.</p> <p>The agreement holder will not construct a road in a domestic use watershed within a 100 m radius upslope of a licensed waterworks unless there is no practicable alternative location for the road. If a road is constructed within a 100 m radius upslope of a licensed waterworks, the agreement holder will undertake measures to limit the quantity of sediment from the road surface which enters the watercourse to a level that has no detrimental impact on water quality at the water intake.</p>
<p>Excavated or Bladed Trails</p>	<p>When constructing an excavated or bladed trail in a domestic use watershed the agreement holder will undertake measures to limit the quantity of sediment from the excavated or bladed trail which enters watercourses above licenced waterworks to a level that has no detrimental impact on water quality at the water intake.</p>

## 4.7 Biodiversity—landscape-level and stand-level

Land Use Objectives in Kootenay Boundary Higher Level Plan Order (HLPO)	
<b>HLPO RMZO 1: Biodiversity Emphasis</b>	<p>The agreement holder will follow HLPO Objective 1.</p> <p>To contribute to the conservation of biodiversity, a biodiversity emphasis level is assigned to each of the landscape units (LU) defined on the HLPO Map 1.1. Specific targets for maintenance of old and mature forests are then defined for each biodiversity emphasis level.</p>
<b>HLPO RMZO 2: Old and Mature Forest</b>  <b>HLPO RMZO 5: Connectivity Corridors</b>	<p>The agreement holder will follow HLPO Objective 2, with the exception of footnote (e).</p> <p><i>With respect to Old requirements:</i></p> <p>The agreement holder will restrict primary forest activities within the Draft OGMA's shown on the attached FSP map. OGMA's may be entered or boundaries may be modified to the extent necessary for any of the following:</p> <ul style="list-style-type: none"> <li>• to construct a resource access road if there is no practicable alternative location for the road</li> <li>• to address threats to forest health; and/or</li> <li>• to reduce wildland-urban interface (WUI) hazards.</li> </ul> <p>New OGMA's may be proposed in order to enhance protection of biodiversity and other non-timber resource values. Currently mapped OGMA's may be shifted to areas with greater biodiversity, old forest, habitat and/or other non-timber values.</p> <p>When an OGMA is relocated, the presence of regional connectivity corridors (per HLPO RMZO 5) will be one of the factors considered in determining OGMA suitability.</p> <p><a href="#">HPCC has committed to avoid logging in any old growth forests.</a></p>
<b>HLPO RMZO 4: Green-up</b>	<p>The agreement holder will follow HLPO Objective 4.</p> <p>To provide for more cost-effective timber harvesting based on Section 68(4) of the OPR, establish the green-up height as 2.5 meters for areas adequately stocked and 3.0 meters for areas not adequately stocked, based on the criteria in the regulations, except in: (i) community watersheds or (ii) visually sensitive areas to be defined and determined by the MoFR District Manager within known scenic areas as identified in RMZO 9.</p>
<b>HLPO RMZO 8: Fire-Maintained Ecosystems</b>	<p>Not applicable.</p> <p>There are no recognized fire-maintained ecosystems identified within the FDU's.</p>

<b>Objectives Set by Government for biodiversity—landscape level and stand level</b>	
<b>Regulation</b>	FPPR Section 9 and FPPR Section 9.1
<b>Practice Requirements</b>	The agreement holder will undertake to comply with:
<b>Regulation</b>	<p>FPPR Section 9 and FPPR Section 9.1</p> <p>Sec 9 - The objective set by government for wildlife and biodiversity at the landscape level is, without unduly reducing the supply of timber from British Columbia's forests and to the extent practicable, to design areas on which timber harvesting is to be carried out that resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.</p> <p>Sec 9.1 - The objective set by government for wildlife and biodiversity at the stand level is, without unduly reducing the supply of timber from British Columbia's forests, to retain wildlife trees.</p>
<b>Practice Requirements</b>	The agreement holder will undertake to comply with:
Maximum cutblock size	<p>FPPR Section 64</p> <p>Limits cutblock size to 40 hectares <i>unless</i> timber harvesting is being carried out to salvage damaged or diseased timber, or is designed to be consistent with the structural characteristics and the temporal and spatial distribution of an opening that would result from a natural disturbance. The 40 hectare limit does not apply to harvesting that retains &gt;40% of initial stand basal area.</p>
Harvesting adjacent to another cutblock	<p>FPPR Section 65</p> <p>Limits ability to harvest an area adjacent to another cutblock, unless the adjacent cutblock is adequately stocked with trees at least 3 meters tall, etc.</p>
<b>Practice Requirements</b>	The following sections apply:
Coarse woody debris	<p>FPPR Section 68</p> <p>An agreement holder who carries out timber harvesting must retain a minimum of 4 logs per hectare, each being a minimum of 2 m in length and 7.5 cm in diameter at one end. (HPCC always leaves much more coarse woody debris in our operating areas than required by S.68.)</p>
Maximum cutblock size	FPPR Section 64
Harvesting adjacent to another cutblock	FPPR Section 65
<b>Practice Requirements</b>	The following sections apply:
Coarse woody debris	FPPR Section 68

<b>Agreement holder developed strategy (as an alternative to FPPR Section 66):</b>	
Wildlife tree retention	<p>For the purposes of the Objectives set in FPPR Section 9.1, the following strategy applies:</p> <ol style="list-style-type: none"> <li>a. The total area covered by WTRA's that relate to the cutblocks in a cutting permit is a minimum of 7% of the gross area of the cutblocks.</li> <li>b. A minimum of 3.5% of the area that relates to a cutblock is maintained in WTRA's.</li> <li>c. For the purposes of (a) and (b) above, a WTRA may relate to more than one cutblock if all of the cutblocks that relate to the WTRA collectively meet the applicable requirements of this section.</li> </ol> <p><u>Dispersed retention</u>: areas of individual trees or clumps of trees which are less than 0.25 ha in size may be used to contribute to the required WTRA percentages for each block based on the total basal area of the trees retained divided by the basal area of the original forest type.</p>
<b>Agreement holder developed strategy (as an alternative to FPPR Section 67):</b>	
Restriction on harvesting in wildlife tree retention area	<p>The agreement holder may harvest trees within a designated WTRA <b>if</b> the purpose of the harvesting is to:</p> <ol style="list-style-type: none"> <li>a) remove trees that contain insect populations that constitute a threat to forest health,</li> <li>b) recover stems previously killed by a disturbance that are suitable habitat for known forest health risks,</li> <li>c) facilitate adjacent harvesting (e.g. yarding guybacks or tailholds), and/or</li> <li>d) remove a safety hazard;</li> </ol> <p><b>and</b>, in the opinion of a QRP, the ecological attributes of the WTRA that are valuable to wildlife are substantively maintained following harvesting.</p> <p>If harvesting carried out for the purpose of (a) to (d) above does <u>not</u> maintain the ecological attributes of the WTRA that are valuable to wildlife, the agreement holder must replace the WTRA with a WTRA that, in the opinion of a QRP, maintains or improves the benefits for wildlife in a location as close as practicable to the harvested WTRA area.</p> <p>Documentation regarding tree removal in WTRA's and WTRA attributes as assessed by a QRP will be filed with HPCC's Site Plan for the relevant cutblock(s).</p>
<b>Applies to FDU</b>	Harrop-Procter

## 4.8 Visual Quality

Land Use Objectives in Kootenay Boundary Higher Level Plan Order (HLPO)	
<p><b>HLPO RMZO 9: Visuals</b></p> <p>To conserve the quality of views from communities, major waterways and major highways by establishing the areas identified on Map 9.1 of the HLPO as known scenic areas.</p>	<p>HLPO RMZO 9 designates scenic areas which include areas in Harrop-Procter visible from communities, highways, and the West Arm of Kootenay Lake.</p>
Objectives enabled by Regulation	
<p><b>Regulation</b></p>	<p>GAR Section 7 (1) &amp; (2) and 17; FPRA Section 180 &amp; 181</p> <p>GAR Sec 7 - allows the Minister to establish scenic areas and set visual quality objectives.</p> <p>GAR 17 - Continues the visual quality objectives as set of by the District Manager before December 31, 2005.</p> <p>FRPA Sec 180 - Every area established or continued under the Code as</p> <ol style="list-style-type: none"> <li>a. an ungulate winter range,</li> <li>b. a wildlife habitat area,</li> <li>c. a scenic area,</li> <li>d. an emergency bark beetle management area,</li> <li>e. a community watershed,</li> <li>f. an area with significant downstream fisheries values,</li> <li>g. an area with significant watershed sensitivity,</li> <li>h. a lakeshore management zone,</li> <li>i. an interpretive forest site,</li> <li>j. a recreation site,</li> <li>k. a recreation trail, or</li> <li>l. a forest ecosystem network</li> </ol> <p>that was in effect immediately before the effective date is continued under this Act.</p> <p>FRPA Sec 181 - All objectives in respect of areas continued under Section 80 that were in effect immediately before the effective date are continued as objectives under this Act.</p>

**Agreement holder developed strategy to meet visual quality objectives:**

<p>Visual Quality Objectives (VQO)</p>	<p>The agreement holder will plan primary forest activities in designated scenic areas to be consistent with the KLFD District Manager’s letter dated July 12, 1999 regarding visual quality objectives.</p> <p>As per the District Manager’s letter dated December 8, 2005, VQO’s may be exceeded in the short term (i.e., up to 20 years) to address salvage or forest health issues, if visual design principles are employed to minimize or mitigate visual impacts.</p> <p>The agreement holder will conduct a Visual Impact Assessment (VIA) for planned primary forest activities located in known scenic areas. The VIA will assess the visual landscape from major public viewpoints and determine potential visual impacts. Evaluation of visual impact will focus on principles of effective design and natural appearance rather than limits of percent alteration.</p> <p>This strategy is unchanged from HPCC’s approach to VIA’s to address VQO’s under the Forest Practices Code.</p> <p>VIA’s will be completed by a QRP and filed with Site Plans for relevant roads and cutblocks. As per the direction from District planning staff, VIA methods will be appropriate to the scale and intensity of planned operations. For example, where Site Plan prescribes 60% retention, a complete visual simulation package may not be necessary. Where low retention is prescribed in a Scenic Area with a restrictive VQO, then a more thorough visual simulation will be completed.</p> <p>HPCC will continue to prescribe minimal clearing widths for road right-of-ways in highly visible scenic areas. In East Harrop Creek, HPCC has demonstrated that major roads and mixed-retention cutblocks can be designed with minimal visual impacts.</p>
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<p><b>Applies to FDU</b></p>	<p>Harrop-Procter</p>
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## 4.9 Cultural Heritage Resources

Objective Set by Government for Cultural Heritage Resources	
<b>Regulation</b>	<p>FPPR Section 10</p> <p>The objective set by government for cultural heritage resources is to conserve, or, if necessary, protect cultural heritage resources that are</p> <p>a) the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and</p> <p>b) not regulated under the Heritage Conservation Act.</p>
Agreement holder developed strategy:	
Information	<p>The agreement holder will:</p> <ol style="list-style-type: none"> <li>1. Utilize the current KLFD First Nations information and referral matrix when referring information to First Nations.</li> <li>2. Share information with First Nations by providing maps of planned harvesting and road construction activities. Information sharing will be initiated at least 30 days prior to road permit or cutting permit submission.</li> <li>3. Invite discussion of planned activities, and offer to meet to discuss cultural heritage resources. The invitation to discuss and offer to meet will be provided in writing concurrent with information sharing.</li> <li>4. In compliance with the Heritage Conservation Act, conduct Archaeological Impact Assessments for planned activities in areas that have been identified in Archaeological Overview Assessments as having a moderate or high archaeological potential.</li> <li>5. Document how planned management activities will address any identified cultural heritage resources.</li> <li>6. Keep a record of any information provided by First Nations on cultural heritage resources, and, on request of the First Nation, will keep any or all shared information confidential.</li> <li>7. Participate in MOFR-led First Nations discussion forums such as the Kootenay Lake Forestry Forum.</li> </ol>

Operations	<p>If at any time a cultural heritage resource becomes known while planning or implementing a primary forest activity, the agreement holder will:</p> <ul style="list-style-type: none"> <li>• Halt operations to the extent necessary to protect or conserve the cultural heritage resource.</li> <li>• Immediately record the location, detail of the resource, time and date of the discovery and other relevant information.</li> <li>• Communicate the details of the cultural heritage resource immediately to Archaeology Branch, MOTCA; the potentially affected First Nation(s); and the MOFR.</li> <li>• Assess the potential impact of the planned activity on the cultural heritage resource. The assessment will comply with the factors listed in FPPR Schedule 1 (4).</li> <li>• Modify the planned activity to mitigate the impact on the cultural heritage resource if the assessment determines it is necessary to do so.</li> <li>• Incorporate any new information regarding the cultural heritage resource into site level plans and operations.</li> <li>• Keep a record of all steps taken with regard to the cultural heritage resource.</li> </ul>
<b>Applies to FDU</b>	Harrop-Procter

#### 4.10 Recreation

<b>Legislation</b>	FRPA Section 180, 181 (grandparented Code objectives and areas). There are no legally binding objectives for any recreation trails or sites in Harrop-Procter.
<b>Agreement holder developed strategy for recreation trails and sites:</b>	

When designing and implementing primary forest activities, the agreement holder will maintain the semi-primitive characteristics of established recreation sites and trails. Hiking access to Mill Lake from Harrop Creek/ Mill Lake Trail will be maintained.

If a recreation trail is crossed by a road, the agreement holder will erect signage and/or physical barriers as necessary to advise users of trail use restrictions and/or to control motorized access.

HPCC has made a commitment to maintain hiking access to Mill Lake from Harrop Creek/ Mill Lake Trail. Site Plans in the East Harrop area make specific reference to maintaining Mill Lake Trail. If the trail is impacted by forest operations, HPCC will ensure that the trail is cleared and re-opened as soon as possible following road building or harvesting activities. This is the approach that was followed in CP138, where, following winter harvesting, the trail was re-opened prior to hiking season. Improved trail access has lead to increased hiking activity on the trail.

HPCC is well aware of recreation resources in the Harrop-Procter area, and has been involved in the development and promotion of recreation trails and sites for the past 10 years.

<b>Applies to FDU</b>	Harrop-Procter
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## 5 Measures for invasive plants and natural range barriers

### 5.1 Invasive Plants

<b>Regulation</b>	FPPR Section 17  For the purpose of Section 47 [invasive plants] of the Act, a person who prepares a forest stewardship plan must specify measures in the plan to prevent the introduction or spread of species of plants that are invasive plants under the Invasive Plants Regulation, if the introduction or spread is likely to be the result of the person's forest practices.
<b>Measures</b>	
Identification	The agreement holder will review MOFR resource materials to assist with identification of invasive plants of concern in the area covered by this FSP.
Monitoring	The agreement holder will annually monitor active roads, landings, skid trails, and other areas of soil disturbance within the agreement holder's operating areas. Areas with significant infestations of invasive plants will be mapped and reported annually to the MoFR.  The agreement holder will participate in the Central Kootenay Invasive Plant Committee.
Limiting Spread	The agreement holder will seed exposed soils along roads, landings and excavated/rehabilitated trails with appropriate plant species as soon as feasible and within one year of the agreement holder's soil disturbance activity.  Where feasible, in areas with significant infestations of invasive plants that are spreading as a direct result of the agreement holder's primary forest activities, the agreement holder will engage in invasive plant population reduction programs, as per the recommendations of a QRP.
<b>Applies to FDU</b>	Harrop-Procter

### 5.2 Natural Range Barriers

<b>Regulation</b>	FPPR Section 18
<b>Practice Requirements</b>	Currently there are no range permits or grazing activity in the FDU's, therefore section 18 of the FPPR does not apply to this FSP.
<b>Applies to FDU</b>	Harrop-Procter

## 6 Additional FSP Information

### 6.1 Areas under Cutting Permits and Road Permits in effect

Areas under existing cutting permits or road permits are shown on the attached FSP map and in Table 2.

*Table 2: Cutting Permits and Road Permits in effect*

<b>Cutting Permits in effect</b>	<b>Block</b>	<b>Location</b>
138	3,4,6	East Harrop
140	5	East Harrop
141	1	Narrows
142	7	East Harrop
<b>Road Permit in effect</b>	<b>Sections</b>	<b>Location</b>
R12554	A,B,C,C1,C2,C3	Harrop-Procter

Existing cutting permits will not be rolled into FRPA, and will continue to be administered under the statutes in place at the time of their approval.

### 6.2 Declared areas

HPCC may periodically submit 'Declared Area' notifications for future roads and cutblocks that are substantially developed with all required assessments completed and that can be measured against the results and strategies of the FSP.

### 6.3 Stocking Standards

<b>Regulation</b>	FPPR Sections 16, 44(1), 44(2) and 44(4)
General Standards	Stocking Standards are provided in Appendix A of this FSP.
<b>Applies to FDU</b>	Harrop-Procter


## 7 Review and Comment

### 7.1 Public Review and Comment

An advertisement will be published in the Nelson Daily News on March 12, 2010. See Figure 2. This advertisement will also be published in the Pennywise on March 17, 2010.

The draft FSP will be available for review and comment from March 12 to May 12, 2010.

*Figure 2: Nelson Daily News advertisement March 12, 2010*



**Harrop-Procter Community Co-operative**  
**Forest Stewardship Plan 2010 – 2015**

Harrop-Procter Community Co-operative's Forest Stewardship Plan (FSP) is available for public review and comment until May 12<sup>th</sup>, 2010. The FSP may be viewed on Wednesdays from 8am to 4pm at the HPCC office, in the Old Schoolhouse Building, 3<sup>rd</sup> Ave, Procter, BC. A public open house is also scheduled for Wednesday, April 7<sup>th</sup> from 4pm to 8pm. Alternatively, appointments to view and discuss the FSP may be arranged by calling (250) 229-2271.

All written comments submitted by mail or in person by May 12<sup>th</sup>, 2010 will be considered in the final FSP. Comments should be addressed to: Erik Leslie, HPCC Forest Manager, PO Box 5, Procter, BC, V0G 1V0.

### 7.2 Summary of Review and Comment

The summary of the Review and Comments will be found in Appendix C, under separate cover.

**HPCC FSP 2010-2015**

**Appendix A**

**Stocking Standards**

*DKL default stocking standards*

**HPCC FSP 2010-2015**

**Appendix B**

**FSP Map**