

3 Sources of Information

3.1 Base Mapping

The following digital map sources were used in the preparation of this Development Plan:

- MoF forest cover map sheets 82F053 (rev. 1998) and 82F063 (rev. 1997).
- A map of management units, or ecosystem types, within W1832 which was prepared for the first Management Plan for W1832 from air photo interpretation and reconnaissance level field surveys.
- A digital copy of the Terrain Stability Inventory Level B mapping for the W1832 area prepared by Klohn Crippen Ltd. in May 1998.
- Digital mapping from the Kootenay Boundary Land Use Plan Implementation Strategy data repository of:
 - domestic watersheds
 - water supply intakes or points of diversion
 - ungulate winter range
 - grizzly bear habitat management areas
- Recent revisions to the scenic management class mapping of the Arrow Forest District for implementation of the KBHLP.

These data sources were combined as required to produce the development plan maps.

3.2 Forest Cover Mapping

Forest inventory information was produced at the management unit level for the first Management Plan for W1832. Each management unit is a grouping of forest types which are sufficiently similar in species composition, terrain, soil, and growing site potential to be managed in a similar way. These initial management units are based on reconnaissance level field surveys and air photo interpretation, and will be revised over time as further field assessment and operational planning are carried out in W1832.

The initial management unit map also identifies:

- forested areas which are ecologically sensitive due to combinations of shallow soil, dry sites, and steep slopes, and
- non-forested areas.

The management unit mapping was converted to an initial forest cover map by developing standard forest cover type labels for each management unit based on field reconnaissance. The initial forest inventory has been assessed and approved as an interim data product by the Arrow Forest District.

3.3 Streams and Wetlands

The mapping of small streams in W1832 contained in the B.C. forest cover and TRIM data sets was found to be incomplete and sometimes inaccurate during field reconnaissance.

The forest canopy obscures the ground from photo interpreters, hiding small streams and natural gullies which are likely to contain small streams. As well, the prominent stepped terrain and north/south striation within W1832 frequently results in water flow patterns across the hillside along micro-terrain features, rather than straight downslope. This unusual drainage pattern creates additional challenges when mapping stream courses using remote sensing.

The creeks shown on the development plan map are based on field reconnaissance. During preparation of the Management Plan, W1832 was surveyed with transect lines spaced 300 to 700 meters apart. This reconnaissance level information, augmented by following creek courses between transect lines, was used to create a new coverage of streams in W1832.

Most of the streams mapped are ephemeral watercourses. The lower reaches of the portions of the streams labeled Saddle Creek, Holt Creek and North Creek which are within W1832 are very small permanent watercourses. None of the reaches of the small permanent watercourses within W1832 appear to be fishbearing streams, due to small size, shallow depth, low flow volume, and steep gradient.

Wetland mapping in W1832 is under development. Several larger open wetlands are shown on the forest cover management unit map. Additional wetlands have been identified and mapped in the area covered by CP A Block 1 using more detailed field surveys. More small wetlands and forested wetlands are known to occur in the upper Holt Creek watershed, but these have not yet been mapped. No development activity is proposed for the main Holt Creek watershed in this FDP.

Mapping of forested wetlands will continue as field surveys and reconnaissance continue.

3.4 Known Items

Section 11(3) of the Woodlot Licence Forest Management Regulation (WLFMR) requires the licensee to identify and describe a list of “known items” in the development plan. A known item is defined as:

- a feature, object or other thing that is:
 - (a) contained in a higher level plan, or
 - (b) otherwise made available to the holder of the woodlot licence by the district manager or designated environmental official at least 4 months prior to submitting the plan in question.

3.4.1 Known Items Identified by MOF and MELP²

The following is the summary list of known features, objectives and things which apply in the Arrow Forest District as identified by the district manager or designated environmental official:

² At the time of writing, the Ministry of Environment, Lands and Parks has been dissolved by the B.C. Government. The data management tasks ascribed to MELP in this document have been distributed between the Ministry of Sustainable Resource Management, the Ministry of Water, Lands and Air Protection, the Ministry of Forests, and the Arrow Innovative Forest Practice Agreement. Who does what is not yet fully resolved.

- Landscape units and biodiversity emphasis
Large land units delineated by the Ministries for landscape biodiversity planning purposes. W1832 is within the Pedro landscape unit. The Pedro Unit has a biodiversity emphasis option of Intermediate. Biodiversity options are discussed at <http://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/biodiv/chap1.htm#bid>.
- Seral stage tables (January 2000)
Tables related to biodiversity management which are published by the MoF. The tables show the area of and proportion of timber management landbase in early, mid, and old seral stages, and target levels per biodiversity management option. Woodlot Licences are currently exempt from these restrictions per the May 14, 2001 KBHLP Strategies.
- Range units and range tenure holders
Areas of crown land which ranchers are allowed to graze cattle upon, controlled by the terms and conditions of a range tenure agreement between the rancher and the MoF.
W1832 is not within a range unit or range tenure.
- Water licences and points of diversion
The location of intakes for domestic and agricultural water licences. Mapping maintained by MELP, and available from FTP site <nelftp.env.gov.bc.ca/pub/outgoing/data/luco>.
- Domestic watershed boundaries
The boundaries of watersheds which have licensed water users, and of designated sub-basins within those watersheds. Mapping maintained by MELP, and available from FTP site <nelftp.env.gov.bc.ca/pub/outgoing/data/luco>.
- Interim Watershed Assessments
No interim watershed assessments apply to the W1832 area.
- Caribou management areas
Woodlot caribou management areas. No caribou management areas occur in or near W1832.
- Ungulate winter range (October 1998)
Regional ungulate winter range mapping and guidelines designated under the KBLUP process. The objective of KBLUP ungulate winter range management guidelines is to ensure that viable populations of ungulate species are maintained. To achieve that goal, the guidelines provide direction with respect to the location, preferred type, distribution and attributes of forest cover, as well as the access management, required to maintain suitable habitat conditions which support populations of ungulate species.
Mapping maintained by MELP, and available from FTP site <nelftp.env.gov.bc.ca/pub/outgoing/data/luco>.
- Scenic areas (Spring 2001)

Regional front country visual management mapping and guidelines designated for the KBHLP implementation process. The objective of the front country visual management guidelines is that design of timber harvesting, forest management and mineral exploration should reflect the importance of front country landscapes to communities, recreation and tourism.

Mapping available from FTP site

ftp.for.gov.bc.ca/Nelson_Region/Arrow/external/outgoing/LUPData

- Recommended Visual Quality Objectives (RVQO)
Established guidelines for visual management objectives. There are no VQO or RVQO for the Slokan Valley, so the Front Country Visual Management Guidelines from KBHLP take precedence.
- Guides outfitters and trappers operating areas and addresses.
W1832 lies within a registered trapline number TR0417T001. W1832 is not within a guide outfitter territory.
- Backcountry commercial operators and backcountry cabins (commercial and other)
W1832 does not include any backcountry areas.
- Recreational management classes
Recreation management classes obtained from the MoF Arrow District in 1999 were utilized.
- Forest Service recreation sites and trails
There are no established Forest Service recreation sites and trails in W1832.
- Other land tenures
There are no current other land tenures within W1832, although there are many historical mining claims in the area, which are believed to be lapsed at this time.
- Permanent sample plots
There are no permanent sample plots in W1832.
- New biogeoclimatic classification linework
BEC linework obtained from the Arrow Forest District in 1998 was used.
- List of regionally important wildlife, MOELP, June 1997.
Obtained from http://srmwww.gov.bc.ca/cdc/table_vertebrates.htm. As well, maps obtained from the old MELP web site provided species distribution information. These maps are no longer available on-line
- Known nest sites.
The Arrow District Forest Ecosystem Specialist reports that there are no known goshawk or other avian species at risk nest sites in W1832.
- All FRBC Wildlife Inventory information
Studies of wildlife habitat and habitat usage and behavior in the Kootenay Region funded by FRBC. Obtained from

<http://www.env.gov.bc.ca/kor/wld/studies1.html>. No studies apply directly to W1832, but many studies examine ungulate winter range use.

- All Forest Development Plan guidebooks.
Guidebooks for forest development plans published under the Forest Practices Code. Woodlot Licence FDPs are governed by the Woodlot Licence Forest Management Regulation, which is obtainable from <http://www.for.gov.bc.ca/tasb/legregs/fpc/fpcaregs/wlfm/wlfmtoc.htm>. These guidebooks are amended by the specific instructions contained in the materials listed below.
- Kootenay Boundary Land Use Plan and Kootenay Boundary Land Use Plan Implementation Strategy
The Kootenay Boundary Land Use Plan (KBLUP) and the Kootenay Boundary Land Use Plan Implementation Strategy (KBLUP-IS) are recognized as higher level plans.
- Letter from Deputy Minister adopting KBLUP-IS as official policy
- 1997 MELP/MOF Memorandum of Understanding Regarding Instruction for the Preparation of the 1998 Forest Development Plans, which provided guidance for incorporating the requirements of the KBLUP-IS. This MOU has since been amended by the materials listed below. The MOU can be obtained from <http://www.winlawwoodlot.ca/backgrnd/fdpmou97.pdf>.
- District Managers 2001 instruction letter and guidelines for developing Forest Development Plans.
The letter and guidelines provide instruction and assistance in identifying and interpreting known information. This information can be obtained from ftp.for.gov.bc.ca/Nelson_Region/Arrow/external/!publish/District_Guidance
- The Kootenay-Boundary Higher Level Plan Order of January 1, 2001. The Kootenay-Boundary Land Use Plan Implementation Strategy (KBLUP-IS), approved by government in 1997, includes a large number of provisions to address a wide array of resource values. Only some of these provisions were selected for establishment as a higher level plan under Part 2 of the Act. Other provisions were not included in the higher level plan order. However, the provisions in the KBLUP-IS not included in the KBHLP Order can be considered useful guidance for measures needed to “manage and conserve the forest resource”, as required under Section 41(1)(b) of the Forest Practices Code of British Columbia Act. The MOU can be obtained from <http://www.winlawwoodlot.ca/backgrnd/order.pdf>.
- Strategies For The Kootenay Boundary Higher Level Plan Order, May 14, 2001. This document sets out current policy and strategies for implementing the requirements of the KBHLP. The Strategies can be obtained from http://www.winlawwoodlot.ca/backgrnd/kb_strat.pdf

3.4.2 Domestic Water Supply Intakes

No domestic or agricultural water intakes are known to be located within W1832. However, many intakes draw water from streams and springs which receive water from the area within W1832. Intakes which have been mapped by MELP are shown on the FDP map.

3.4.3 Fish Streams

The far northern boundary of the crown portion of W1832 runs along the south bank of Trozzo Creek for a length of 150 meters. This area has not been explored in the field, but this reach of Trozzo Creek is likely fishbearing. No forestry activities within the Trozzo Creek watershed are proposed in this FDP.

A corner of W1832 crosses the middle reach of Dumont Creek. The stream in this area is less than 1 meter wide and very steep. This reach is not believed to be a fish bearing stream. No forestry activities near this area are proposed in this FDP.

There are no other fishbearing streams or potential fishbearing streams within W1832.

3.4.4 Riparian Class of Streams and Wetlands

The riparian class of most streams and wetlands in W1832 was determined in the field by woodlot staff. All classified creeks in W1832 are class S-6 creeks. Class S-6 creek have the following characteristics:

- they are perennial or seasonal watercourses with a continuous bed which is either scoured by water or contains observable alluvial deposits.
- they are less than 3 meters wide,
- they are not fishbearing streams, and
- they are not in a designated Community Watershed.

Three mapped creeks in the eastern portion of the woodlot which drain into Winlaw Creek North Fork were not field checked and are thus Non-Classified Streams.

All wetlands in W1832 are smaller than the minimum size required to be a classified wetlands under the Forest Practices Code, and are thus Non-Classified Wetlands.

3.4.5 Old Growth Management Areas

W1832 does not lie within any designated old growth management areas, and Woodlot Licences are excluded from old forest management targets in the Strategies. Many small old growth patches will be created and maintained within W1832 in riparian reserves, ecologically sensitive upland areas, wildlife tree patches, and wildlife habitat management areas. As well, the substantial areas of forest within the two “excluded areas” within W1832 will likely develop old growth characteristics over time.