

KOOTENAY-BOUNDARY HIGHER LEVEL PLAN ORDER

**ORDER ESTABLISHING RESOURCE MANAGEMENT ZONES
AND RESOURCE MANAGEMENT ZONE OBJECTIVES
WITHIN THE AREA COVERED BY THE KOOTENAY-BOUNDARY LAND USE PLAN
AS A HIGHER LEVEL PLAN PURSUANT TO
SECTIONS 3(1), 3(2), AND 9.1 OF THE
*FOREST PRACTICES CODE OF BRITISH COLUMBIA ACT (THE ACT)***

PREAMBLE

The Kootenay-Boundary Higher Level Plan Order is being revised to reflect the required balance of social, economic and environmental values and is consistent with a request by the citizens of the Kootenay-Boundary region. These changes to the Kootenay-Boundary Higher Level Plan Order should be viewed as transitional, and are consistent with government's work on the Results Based Code, the Forest Investment Vote processes and the new land use planning initiatives being developed by the Ministry of Sustainable Resource Management.

This Kootenay-Boundary Higher Level Plan Order establishes new Resource Management Zones and Objectives and cancels the previous Kootenay-Boundary Higher Level Plan Order dated January 31, 2001.

Statutory decision-makers (SDMs) exercise their statutory authority within a recognised legislative framework. Within this framework, SDMs are legally obligated to ensure that decisions they make, such as the approval of a forest development plan (FDP), are consistent with all relevant legislation (including regulations), binding policy (such as chief forester's direction), and an approved higher level plan order. In addition, SDMs, under Section 41(1)(b) of the *Forest Practices Code of British Columbia Act*, are obligated to ensure that any proposed FDP will adequately "...manage and conserve the forest resource..." before they can legally approve it. In determining whether a proposed FDP will adequately manage and conserve the forest resource, SDMs must exercise independent judgement in regard to what information to consider and how to consider it. In this regard, no person has authority to direct, require or demand that SDMs consider any specific information, beyond what is legally required.

Government has established a goal of maintaining full access outside of protected areas for subsurface resource exploration and development. Consequently, the objectives established by this higher level plan order are not intended to have an impact on the permitting of subsurface resource exploration and development. Furthermore, this higher level plan order does not restrict the authority of the Chief Inspector of Mines to approve the issuance of a Special Use Permit under the Act to the holder of a mineral title, the owner of a Crown granted 2 post claim, or a coal licensee, for the construction of appropriate access to the area of that mineral title, Crown granted 2 post claim, or coal licence.

PART 1

Establishment of Resource Management Zones

This Kootenay-Boundary Higher Level Plan establishes new Resource Management Zones and cancels the previous Kootenay-Boundary Higher Level Plan dated January 31, 2001. Pursuant to Section 3(1) of the Act, the following zones as presented on Map 1.0 (attached) are established as Resource Management Zones (RMZs):

- A** Arrow Resource Management Zone;
- B** Boundary Resource Management Zone;
- C** Cranbrook Resource Management Zone;
- D** Golden Resource Management Zone;
- E** Invermere Resource Management Zone; and
- F** Kootenay Lake Resource Management Zone.

PART 2

Resource Management Zone Objectives

This Kootenay-Boundary Higher Level Plan establishes new Resource Management Objectives and cancels the previous Kootenay-Boundary Higher Level Plan dated January 31, 2001. Pursuant to Section 3(2) of the Act, objectives 1 to 10 in Part 2 of this order are established effective October 1, 2002, as Resource Management Zone objectives for the RMZs established above. In regards to Section 10 of the *Forest Practices Code of British Columbia* act, forest development plans submitted after October 26, 2002 for district manager's approval or given affect by the district manager, must be consistent with new Resource Management Objectives.

The following objectives do not affect operational plans required for construction of trails or roads, or for other exploration, development, and production activities when these activities have been authorized for purposes of subsurface resource exploration, development, or production by the *Mineral Tenure Act*, the *Coal Act*, the *Mines Act*, the *Petroleum and Natural Gas Act*, the *Pipeline Act*, or the *Geothermal Resources Act*.

Definitions in the Act, Regulations, Forest Practices Code Guidebooks as well as the definitions, processes and procedures in the Landscape Unit Planning Guide at the time this order takes effect or as amended from time to time apply, unless otherwise noted in this higher level plan order.

Implementation of this higher level plan order is highly dependent upon technical inventory. The inventories are continually updated to incorporate new information and improve the level of accuracy. New information will be utilized as soon as practicable, for example, for meeting the targets referred to in this higher level plan order.^a

1. Biodiversity Emphasis:

To contribute to the conservation of biodiversity, biodiversity emphasis is assigned to each landscape unit defined on Map 1.1 as outlined on Map 1.1.

^a It is expected that landscape unit planning will set procedures on how consistency between higher level plan percent targets and landscape unit plan area targets is to occur. It is anticipated that the procedures will address the need for periodic assessment and revision of landscape unit plan area targets.

2. Old and Mature Forest:

- (1) To contribute to the conservation of biodiversity, maintain mature forests in those areas identified in objective 2 (2) and old forests to the level indicated in Tables 2.1 through 2.4 to all landscape units and associated biodiversity emphasis as defined in objective 1. Mature and old forests are defined in Table 2.6.

Table 2.1. Seral stage distribution for Natural Disturbance Type (NDT) 1
(percentage of forest area within the biogeoclimatic unit of each landscape unit)

Biogeoclimatic unit	Seral stage					
	Mature + Old			Old		
	L ^b	I ^c	H ^d	L ^{b,e}	I ^c	H ^d
ICH ^f	>17	>34	>51	>4.3	>13	>19
ESSF ^g	>19	>36	>54	>6.3	>19	>28

Table 2.2. Seral stage distribution for NDT 2 (percentage of forest area within the biogeoclimatic unit of each landscape unit)

Biogeoclimatic unit	Seral stage					
	Mature + Old			Old		
	L ^b	I ^c	H ^d	L ^{b,e}	I ^c	H ^d
ICH ^f	>15	>31	>46	>3	>9	>13
ESSF ^g	>14	>28	>42	>3	>9	>13

^b L =Low Biodiversity Emphasis

^c I = Intermediate Biodiversity Emphasis

^d H=High Biodiversity Emphasis

^e Tables 2.1 to 2.4 show the targets employing 2/3 draw-down for the “Old” seral stage component in low biodiversity emphasis. As per the Landscape Unit Planning Guidebook, a recruitment strategy must be developed that describes how to meet the full target. The full target will be achieved by the end of the third rotation.

^f ICH = Interior Cedar Hemlock

^g ESSF = Englemann Spruce – Subalpine Fir

^h MS = Montane Spruce

ⁱ IDF = Interior Douglas Fir

^j PP = Ponderosa Pine

Table 2.3. Seral stage distribution for NDT 3 (percentage of forest area within the biogeoclimatic unit of each landscape unit).

Biogeoclimatic unit	Seral stage					
	Mature + Old				Old	
	L ^b	I ^c	H ^d	L ^{b,e}	I ^c	H ^d
MS ^h	>14	>26	>39	>4.7	>14	>21
ESSF ^g	>14	>23	>34	>4.7	>14	>21
ICH ^f	>14	>23	>34	>4.7	>14	>21

Table 2.4. Seral stage distribution for NDT 4 (percentage of forest area within the biogeoclimatic unit of each landscape unit)

forest area within the biogeoclimatic unit of each landscape unit)

Biogeoclimatic unit	Seral stage					
	Mature + Old				Old	
	L ^b	I ^c	H ^d	L ^{b,e}	I ^c	H ^d
ICH ^f	>17	>34	>51	>4.3	>13	>19
IDF ^l	>17	>34	>51	>4.3	>13	>19
PP ⁱ	>17	>34	>51	>4.3	>13	>19

(2) Mature forests will be managed in the following areas (as defined in Table 2.5):

Table 2.5. Areas to be managed for Mature forest targets

RMZ	Landscape Unit	BEC subzone/variant	BEO
Arrow			
	N501 Sheep Creek	ICH dw	Intermediate
	N504 Pend' Oreille	ICH dw	Intermediate
	N505 Stagleap	ICH dw	Intermediate
	N508 Blueberry	ICH dw	Intermediate
	N509 Dog	ICH dw	Intermediate
	N511 Cayuse	ICH dw	Intermediate
	N513 Pedro	ICH dw	Intermediate
	N514 Perry	ICH dw	Intermediate
	N518 Gladstone	ICH dw	Intermediate
RMZ	Landscape Unit	BEC subzone/variant	BEO
Arrow con't			
	N515 Lemon	ESSF wc1	High
		ESSF wc4	High
		ICH dw	High
		ICH mw2	High
	N525 Wilson	ESSF wc1	High
		ESSF wc4	High
		ICH dw	High
		ICH mw2	High
		ICH wk1	High

	N528 Kuskanax	ESSF wc1	High
		ESSF wc4	High
	N529 Halfway	ESSF wc1	High
		ESSF wc4	High
	N530 Trout	ESSF wc1	High
		ESSF wc4	High
		ICH mw2	High
		ICH vk1	High
		ICH wk1	High
	Boundary		
	B10 Burrell	ESSF wc4	High
	B11 Rendell	ESSF dc1	High
	Cranbrook		
	C02 Perry/Moyie	ESSF wm	High
	C04 Hellroaring/Meachen	ESSF wm	High
	C09 Yahk River	ESSF wm	Low
		ICHmk1	Low
	C14 Wigwam River	ESSF dk	High
		MS dk	High
	C15 Lodgepole/Bighorn	ICH mk1	High
		MS dk	High
	C18 East Flathead	MS dk	Intermediate
	C22 Upper Elk	MS dk	Intermediate
		ESSF dk	Intermediate
	C23 West Elk	ESSF dk	High
	Golden		
	G1	ESSF wc2	High
		ICH wk1	High
	G6	ESSF wc2	High
		ICH mw1	High
		ICH wk1	High
	G12	ESSF vc	High
		ESSF wc2	High
		ICH wk1	High
	G13	ESSF vc	High
		ESSF wc2	High
		ESSF wm	High
		ICH mw1	High
		ICH wk1	High
	G24	ESSF wm	High
		ICH mw1	High
	G26	MS dk	High

	G27	ESSF dk	High
		MS dk	High
Invermere			
	I01 Findlay	ESSF dk	High
	I02 Buhl/Bradford	ESSF dk	High
		MS dk	High
	I11 Kootenay	ESSF dk	High
		MS dk	High
	I16 Jumbo	ESSF dk	High
		ESSF wm	High
		MS dk	High
	I17 Goldie	ESSF dk	High
		MS dk	High
	I19 Fenwick	MS dk	Intermediate
	I20 Palliser	MS dk	Intermediate
	I22 Albert	ESSF dk	High
		MS dk	High
	I24 Pedley	MS dk	Intermediate
Kootenay Lake			
	K05 Kid Creek	ICH dw	Intermediate
	K06 Goat River	ICH dw	Intermediate
	K08 Gray Creek	ICH dw	Intermediate
	K10 West Arm	ICH dw	Intermediate
	K12 Kaslo River	ICH dw	Intermediate
RMZ	Landscape Unit	BEC subzone/ Variant	BEO
Kootenay Lake con't			
	K25 Duck Lake	ICH dw	Intermediate
	K17 Goat Range	ESSF wc4	High
		ICH mw2	High
		ICH wk1	High
	K18 Lardeau River	ESSF wc4	High
		ICH mw2	High
		ICH wk1	High
	K23 Westfall Creek	ICH wk1	High

(3) Old and mature forests will be maintained at the subzone/variant level within the landscape units defined in objective 1.

- (4) In the MS^h and IDFⁱ biogeoclimatic units, mature seral Lodgepole pine stands may be substituted for old seral Lodgepole pine stands where a forest health strategy for managing mountain pine beetle is in place which indicates that harvesting the stand is necessary to reduce the risk of epidemic losses from beetles. In the MS^h and IDFⁱ biogeoclimatic units, younger seral Lodgepole pine stands (minimum age 61 years) may be substituted for mature Lodgepole pine stands where a forest health strategy for managing mountain pine beetles is in place which indicates that harvesting the stand is necessary to reduce the risk of epidemic losses from mountain pine beetles.
- (5) Where recruitment is required to meet old and/or mature targets, recruitment strategies should generally be designed to achieve the targets in the shortest time frame. A registered professional forester may propose an alternate strategy provided the strategy is documented; and the strategy maintains or improves benefits for old growth conservation or it can be shown that objectives 2, 3, 5, 8, or 9 would be better met.

Definition of Mature and Old forests by NDT and Biogeoclimatic Ecosystem Classification (BEC) Unit is outlined in Table 2.6.

Table 2.6. “Mature” and “Old” forests by NDT and BEC Unit

Natural Disturbance Type	BEC unit	Mature (yrs) ^k	Old (yrs) ^k
NDT 1	ICH	>100	>250
	ESSF	>120	>250
NDT 2	ICH	>100	>250
	ESSF	>120	>250
NDT3	ICH	>100	>140
	ESSF	>120	>140
	MS	>100	>140
NDT4	ICH	>100	>250
	IDF	>100	>250
	PP	>100	>250

^k Where a registered professional forester determines that a forest stand has sufficient biological value to be a mature or old considering the stand age, successional status, presence of old growth attributes, size of stand (ha), the amount of human impact, dispersion/connectivity of the stand and rarity of the stand; that stand may be used in meeting the targets as opposed to solely using age.

3. Caribou:

- (1) To retain seasonal habitats for mountain caribou in order to contribute to maintaining viability of the existing subpopulations¹ according to the forest cover requirements shown in Table 3.1, within the caribou habitat areas shown on Map 3.1.
- (2) For all zones in Table 3.1, forest cover requirements are determined by applying percentages to the Crown forested landbase within mapped caribou habitat of each landscape unit. For this objective, Crown forested land base excludes Provincial

Parks, Protected Areas, Ecological Reserves and Federal Parks. The resultant forest cover area requirements are applied to slopes less than 80 percent.

Table 3.1: Caribou Habitat Requirements

Biogeoclimatic Unit	Forest Cover and Forest Practice Requirements
Subalpine Parkland	No timber harvesting
ESSF – above Caribou Line (as shown in Map 3.1) and below subalpine parkland	Maintain a minimum 70% of the forested area in age class 8 or older forests. Forested areas exclude the forest cover inventory labels alpine and alpine forest.
ESSF – below Caribou Line (as shown in Map 3.1)	Maintain 30% of the forested area in age class 8 or older. At least one-third of this 30% is to be age class 9. On an additional 20% (minimum) of the area, employ partial cutting prescriptions which maintain suitable caribou habitat attributes.
ICH – above Caribou Line (as shown in Map 3.1)	Maintain a minimum 70% of the forested area in age class 8 or older forests.
ICH – below Caribou Line (as shown in map 3.1)	Maintain a minimum of 40% of the forested area in age class 8 or older. At least a quarter of this 40% is to be age class 9.
MS	Maintain 40% of the forested area in age class 6 or older. One-quarter of this 40% is available for partial cutting prescriptions which maintain suitable habitat attributes.

4. Green-up:

- (1) *To provide for more cost-effective timber harvesting based on Section 68(4) of the Operational Planning Regulation (OPR), establish the green-up height as 2.5 metres for areas adequately stocked and 3.0 metres for areas not adequately stocked, based on the criteria in the regulations, except in:*
- i. community watersheds;*
 - ii. visually sensitive areas to be defined and determined by the District Manager, Ministry of Forests (MOF), within known scenic areas as identified in objective 9;*
 - iii. Enhanced Resource Development Zones - Timber as identified in objective 7 and*
 - iv. the specified fire-maintained ecosystems as identified in objective 8(d).*

5. Grizzly Bear Habitat and Connectivity Corridors:

- (1) To maintain mature and/or old forests adjacent to important grizzly bear habitat (avalanche tracks, denning sites, etc.) as shown on Map 5.1^m subject to objectives 5(5) and 5(6).
- (2) Transition: Objective 5 (1) takes effect four months after mapping of important grizzly bear habitat is completed and made available.
- (3) To maintain mature and/or old forests within connectivity corridors shown on Map 5.2, for purposes of regional forest ecosystem connectivity subject to objectives 5(5) and 5(6).

- (4) Forests situated on slopes greater than 80 percent do not contribute to the connectivity component of this objective.
- (5) Where applicable, mature targets must be used to address this objective if connectivity corridors and/or grizzly bear habitat have been identified. Protected areas must first be used to reduce the mature target where available within the biogeoclimatic unit.
- (6) Old targets should be used to address this objective unless other conservation values such as protection of rare or under represented old growth forests would be adversely affected. Protected areas must first be used to reduce the old target where available within the biogeoclimatic unit.

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Currently important grizzly bear areas have not been mapped but will be added when available.

6. Consumptive Use Streams:

- (1) To reduce the impacts of forest development on streams licensed for human consumption, apply the following stream side management provisions to S5 and S6 streams that meet the stated conditions:
 - a) Stream side management provisions:
 - i. the stream side management zone will extend from the edge of the stream channel bank or the outer edge of the active floodplain, to a minimum distance of 30 metres on each side of the stream, or to the top of the inner gorge, whichever is greater; and specific measures to safeguard water licensed for human consumption must be described for activities in the stream side management zone.
 - b) The provisions apply to:
 - i. the segment of a stream between the water intake which is licensed for human consumption and the upstream point where stream order is reduced and, if the intake is located on a first-order stream, the entire stream length above the intake;
 - ii. a stream on which there is a water intake which is licensed for human consumption; and
 - iii. a stream on which the location of a water intake is shown on Map 6.1. (Intakes shown are licensed for human consumption.)
 - c) The provisions do not apply where:
 - i. the stream is within the Enhanced Resource Development Zones - Timber areas under objective 7 (Map 7.1); or
 - ii. it has been established that a licensed intake is not being utilized for human consumption.

7. Enhanced Resource Development Zones – Timber:

- (1) To support intensive forest management for the purpose of increasing volumes of merchantable timber and to reduce industry costs while maintaining adequate environmental stewardship Enhanced Resource Development Zones – Timber (ERDZ-T) emphasis is assigned as outlined on map 7.1.
- (2) Pursuant to Section 68(4) of the OPR, the green-up height for ERDZ-T's as shown on Map 7.1 is established as successful regeneration of cutblocks provided this is consistent with any landscape unit patch size objectives that are established for any landscape unit that incorporates the ERDZ-T.
- (3) This objective does not apply within connectivity corridors.
- (4) Where consumptive use water licences are issued within an ERDZ-T area after this order comes into effect those areas will remain ERDZ-T areas and Objective 6 will not apply.

8. Fire-Maintained Ecosystems:

To restore and maintain the ecological integrity of fire-maintained ecosystems, provide for treatments to the areas identified on Map 8.1ⁿ as shrubland, open range, open forest, and managed forest ecosystem components in NDT 4 so that:

- a) treatments will contribute to the creation of a complex, ecologically appropriate mosaic of habitats over the long term;
- b) treatments in open range and open forest will remove excess immature and understory trees and emphasize retention of the oldest and/or largest trees;
- c) both open forest and managed forest with suitable attributes will contribute to achieving mature and old targets as defined in objective 2;
- d) pursuant to Section 68(4) of the OPR, green-up height requirements will:
 - i. not apply within open forest or open range;
 - ii. as identified in objective 4, apply within managed forest outside of ERDZ-Ts;
 - iii. as identified in objective 7, apply to managed forest inside ERDZ-Ts; and
- e) the relative contribution of open forest towards biodiversity targets is not tree stocking dependent.

ⁿ Currently fire maintained ecosystem mapping is not available but will be added when available.

9. Visuals:

To conserve the quality of views from communities, major waterways and major highways by establishing the areas identified on Map 9.1 as known scenic areas consistent with Section 1 of the OPR.

10. Social and Economic Stability:

- (1) To ensure that there are no unintended outcomes of the bringing into force objectives 1 to 9 on the social and economic stability of communities located within the area of the higher level plan, the Ministry of Sustainable Resource Management in consultation with communities, forest licensees and other interests will create thresholds for timber supply, costs and timber profiles that will initiate a review of these objectives
- (2) An assessment regarding the achievement of this objective will be undertaken by government staff in 2004 as part of the formal review outlined in Part 3 of this order.
- (3) Government may modify objectives prior to the 2004 review, where it is deemed that timber supply, costs and profiles have potentially unintended outcomes on communities and/or licensees.

PART 3 – Monitoring and Review

The Ministers recognize that new information will arise regarding the higher level plan order and resulting impacts. Consequently, the implementation of the higher level plan order will be monitored to assess impacts on both the environment and the economy.

As part of the monitoring process for the higher level plan order, government will establish a reference panel consisting of stakeholder representatives, and government staff. The reference panel will participate in monitoring on an ongoing basis. The First Nations will be consulted throughout the monitoring and review process.

Furthermore, it is government's intention to undertake a formal review that will:

- examine the impacts that the implementation of this higher level plan order has had on the regional environment and economy;
- examine the impacts that other factors have had on the regional environment and economy over the same period;
- examine the timber supply impacts within each timber supply area, each tree farm licence, and in woodlot licences;
- examine the impacts on timber harvesting costs and timber quality; and
- utilize information provided through spatial forest analyses to help assess trends for both economic and environmental variables.

It is intended that this formal review be undertaken in the first 6 months of 2004, with results submitted to the Ministers no later than July 1st of that year.

PART 4 – Filing the Order

This order will be filed with the Regional Manager, Nelson Forest Region and will take effect on October 26, 2002.



The Honourable Michael de Jong
Minister of Forests

OCT 26 2002

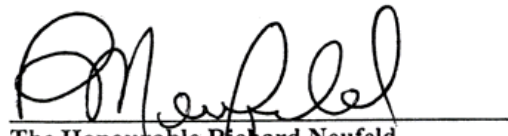
Date



The Honourable Stan Hagen
Minister of Sustainable Resource Management

OCT 26 2002

Date



The Honourable Richard Neufeld
Minister of Energy and Mines

OCT 26 2002

Date