

ORDER – Grizzly Bear Specified Area #4-180
Selkirk Resource District and Rocky Mountain Resource District

This order is given under the authority of section 9(1) of the *Government Actions Regulation* (B.C. Reg. 582/2004) (GAR).

1. The Deputy Minister of Forests, Lands and Natural Resource Operations, being satisfied that
- i. the general wildlife measures (GWMs) described below are necessary to protect and conserve Grizzly Bear (*Ursus arctos*); and
 - ii. GAR or another enactment does not otherwise provide for that protection or conservation;

orders that

- a. the GWMs outlined in Schedule 1 are established for Specified Area 4-180, for Grizzly Bear;
- b. the specified area shown in the map set out in the attached Schedule A (4-180) and contained in the wildlife habitat areas (WHA) spatial layer stored in the Geographic Warehouse (WHSE_WILDLIFE_MANAGEMENT.WCP_WILDLIFE_HABITAT_AREA_POLY) are established as Specified Area 4-180. The centre point of the line on the attached Schedule A is what establishes the Specified Area boundary;
- c. the specified area in the attached Schedule A and contained in the wildlife habitat areas (WHA) spatial layer stored in the Land and Resource Data Warehouse (WHSE_WILDLIFE_MANAGEMENT.WCP_WILDLIFE_HABITAT_AREA_POLY) is established for Grizzly Bear (*Ursus arctos*);
- d. if there is a discrepancy between the area shown in the map set out in the attached Schedule A and the WHA spatial layer stored in the Geographic Warehouse (WHSE_WILDLIFE_MANAGEMENT.WCP_WILDLIFE_HABITAT_AREA_POLY), the areas as detailed in the WHA spatial layer will take precedent;
- e. the general wildlife measures outlines in Schedule 1 do not apply to woodlot licence agreements holders;
- f. for the purpose of section 2(3)(a) of the GAR, the general wildlife measures outlined in Schedule 1 apply to minor tenures; and
- g. private lands, are excluded from the application of the general wildlife measures outlined in Schedule 1.

Definitions:

Words and expressions not defined in this order have the meaning given them in the *Forest and Range Practices Act* (FRPA) and the regulations made under it unless context indicates otherwise.

Effective visual buffer means obscuring the view of a bear from a road using vegetation composition, density and contrast, and topography.

New road means first-time construction of a road prism, but does not include existing non-status roads that may require reconstruction under the authority of a road permit or road use permit or Forest Service Road.

Rehabilitate means the removal of a trail and restoration of the original slope in a manner that prevents erosion, inhibits motorized vehicle access and establishes a productive growing site for trees.

Schedule 1 – General Wildlife Measures**Forest Roads and Trail**

1. New road construction, except for stream crossings, must not occur within:
 - a. 100 m of stream riparian class S1-A
 - b. 70 m of stream riparian class S1-B
 - c. 50 m of stream riparian class S2
 - d. 40 m of stream riparian class S3
 - e. 30 m of stream riparian classes S4 and S5
 - f. 20 m of stream riparian class S6
 - g. 50 m of wetland riparian classes W1 and W5
 - h. 30 m of wetland riparian classes W2, W3, W4
2. New excavated or bladed trails must be rehabilitated as soon as possible, but not to exceed one year, following harvesting of the block or when no longer required for mineral exploration purposes within the following areas:
 - a. 100 m of stream riparian class S1-A
 - b. 70 m of stream riparian class S1-B
 - c. 50 m of stream riparian class S2
 - d. 40 m of stream riparian class S3

- e. 30 m of stream riparian classes S4 and S5
 - f. 20 m of stream riparian class S6
 - g. 50 m of wetland riparian classes W1 and W5
 - h. 30 m of wetland riparian classes W2, W3, W4
3. An effective visual buffer must be maintained to the extent practicable by retaining non-merchantable stems and existing understory vegetation between existing roads and adjacent recently harvested openings (\leq AC 1) or classified wetlands. Avoid, where practicable, reactivating in-block roads or trails to conduct post-harvest development activities.
 4. New roads must be located such that there is an effective visual buffer to the extent practicable between the road and a classified wetland.

Harvesting and Silviculture

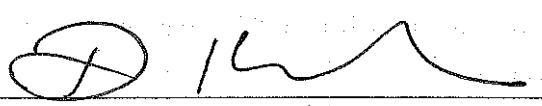
5. In the BEC subzone/variant/site series described in Table 2, conduct timber harvesting and silviculture activities with the intent to maintain or enhance *Vaccinium* spp. productivity on the sites.

Table 2. Important Berry Producing Site Series in the Yahk Population Unit

BEC Subzone Variant	Site Series
ICHdwl	01a, 01b
ICHdm	01, 03
ESSFdm	01, 02, 03, 04, 05, 62, 73

6. Wildlife tree retention should be primarily designed and retained to protect unique habitats within the harvest block (i.e., small unclassified wetlands, largest diameter snags); secondarily, to assist in the visual screening of the harvested opening from adjacent roads and trails.
7. Retain preferentially large (≥ 30 cm DBH) coarse woody debris (CWD) where they exist on the ground prior to harvesting, with a minimum total CWD target of 20 – 40m³/ha. Felled snags and danger trees should be retained in-block to assist in meeting this target.
8. Do not use pesticides, except for the application of herbicides to control invasive plants or noxious weeds.

9. Avoid afforestation of naturally unforested areas (forest gaps and meadows).


Signed this 12 day of May, 2011
Doug Konkin, Deputy Minister
Ministry of Forests, Lands and Natural Resource Operations

Appendix 1:

The following information is provided as background information and support to the order establishing Specified Area 4-180. This appendix is not part of the order.

1. Activities to which the order does not apply: Section 2(2) of the *Government Actions Regulation* states

An order under any of sections 5 to 15 does not apply in respect of

- a) any of the following entered into before the order takes effect:
 - i) a cutting permit;
 - ii) a road permit;
 - iii) a timber sale licence that does not provide for cutting permits;
 - iv) a forestry licence to cut issued by a timber sales manager under section 47.6 (3) of the *Forest Act*;
 - v) subject to subsection (3), a minor tenure,
 - b) a declared area,
 - c) areas described in section 196 (1) of the Act, and
 - d) areas referred to in section 110 of the *Forest Planning and Practices Regulation* (FPPR).
2. Authority to consider an exemption from these GWMs is provided in section 92(1) of the FPPR, and section 79(1) of the Woodlot License Planning and Practices Regulation. An exemption may be provided if the Minister's delegate is satisfied that the intent of the GWM will be achieved or that compliance with the provision is not practicable, given the circumstances or conditions applicable to a particular area.

An exemption application should be submitted to the Minister's delegate with a rationale describing the nature of the problem and options to integrate Specified Area conservation with proposed forest and/or range practices. This submission will assist in timely consideration of the matter, and will inform the conditions, if any, of the exemption that may be granted prior to commencement of activities. Incomplete packages will be returned to the proponent for re-submission. A template for exemption requests is available at: <http://www.env.gov.bc.ca/wld/frpa/index.html>.

Re: GWM 1: Mapped Core Habitat

Core habitat was primarily defined by integrating GPS-telemetry data into a resource selection function (RSF) model with an RSF score of ≥ 0.6 ¹. Boundary locations of the core habitat polygons were not initially defined at an operational scale (1:20,000). However, through

¹ Habitat security for grizzly bears in the Yahk Grizzly Bear Population Unit of the south Purcell Mts. of southeast British Columbia; Michael Proctor, Chris Servheen, Wayne Kasworm and Tom Radandt, March 2008. Unpublished report.

professional judgement, core habitat boundary adjustments were made using geographic features (i.e., heights of land, roads and streams) to aid in identifying boundaries on the ground.

Re: GWM 2: New Roads

The planning of new harvesting anywhere within the core habitat polygons should seek to minimize the amount of roads (i.e., total chance planning) and, where practicable, place them where visual screening into recently harvested openings and classified wetlands is maximized.

Re: GWM 3: Excavated or bladed trails

The desired result of rehabilitating a constructed trail is to remove the running surface suitable for motorized vehicles (including all terrain vehicles). Rehabilitation practices could include, ripping compacted soils, re-contouring, placement of large woody debris, replacement of natural drainage, reforestation and the strategic placement of a natural barrier if warranted. Note: for the purpose of this Order, a cleared corridor for the purpose of constructing and maintaining a fence is not considered an excavated or bladed trail.

While GWM #3 only requires rehabilitation of trails adjacent to the designated riparian areas, it is recommended, where possible, to rehabilitate all in-block trails at completion of harvesting within the core habitat polygons.

Re: GWMS 4, 5 & 7: Security Cover

One of the key habitat attributes in the Yahk grizzly bear population unit is security cover. Maintaining habitats that bears can use without detection from open roads has the greatest influence on bear movement throughout the unit. Planning for an effective visual buffer from roads and actually achieving this security cover objective may be challenging given the specific characteristics of the area. Visual screens should be considered along all roads (new and existing) recognizing that each scenario will have unique site features to contend with. It is recognized that visual screens will result in various degrees of bear concealment, and that it will not be practicable to provide effective screens in all locations.

Re: GWM 6: *Vaccinium* Management

Forest development can have a significant effect on both existing and future berry productivity of a site. The following practices are known to be beneficial to the productive capacity of huckleberry berry producing shrubs and bear use of the site.

Harvesting

- Conduct harvesting on snowpack to minimize damage to root systems of berry producing shrubs.
- Incorporate stand level retention requirements and/or understory vegetation in a manner that serves to screen harvested openings from an adjacent open road or trail.

- Consider the aspect and elevation of the site when addressing moisture stress of vegetation in the stand prescription.

Silviculture

- Avoid machine site preparation activities (i.e., scarification) that will damage shrub rootstocks as most re-establishment of *Vaccinium* occurs from stump sprouting and through underground rhizomes.
- Consider light broadcast burning as fire stimulates resprouting and rhizome shoots.
- Consider a variety of stocking densities; lower densities will provide forage longer, while higher densities serve to increase security cover, long-term snags and coarse woody debris.
- Encourage a mix of tree species, including deciduous.
- If brushing is necessary, consider manual methods only because shrub recovery is much quicker and rejuvenates berry producing species. Avoid brushing along roads that would reduce the effective visual buffer where not in conflict with Worksafe BC.

Re: GWM 8: Coarse Woody Debris

The objective of CWD management for grizzly bears is to retain the largest diameter piece sizes in the harvested opening. While a target range of minimum volume is provided in the GWM, it is intended to ensure that greater attention is paid to leaving this important forage value (habitat for ants and small rodents) throughout the opening. This foraging opportunity is especially important during years of poor berry production.