

**ORDER – Specified Area**  
**3-221**  
**Grizzly Bears – Cascades Forest District**

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

1. The Thompson Okanagan Region Regional Executive Director of Forests, Lands and Natural Resource Operations, being satisfied that

- i. the general wildlife measures (GWMs) described below are necessary to protect or conserve grizzly bear and the habitat of grizzly bear ; 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 SA 3-221.
- b) the specified area shown in the map set out in the attached Schedule A (3-221) and contained in the wildlife habitat area (WHA) spatial layer stored in the Geographic Warehouse (WHSE\_WILDLIFE\_MANAGEMENT.WCP\_WILDLIFE\_HABITAT\_AREA\_POLY) are established as a specified area 3-221 for grizzly bear. The centre point of the line on the attached Schedule A is what establishes the specified area boundary; and
- c) if there is a discrepancy between the areas 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 area as detailed in the WHA spatial layer will take precedent; and
- d) pursuant to section 7(3) of the *Forest Planning and Practices Regulation* the person(s) required to prepare a forest stewardship plan are hereby exempted from the obligation to prepare results or strategies in relation to the objective set out in section 7(1) of the *Forest Planning and Practices Regulation* to the extent that specified area 3-221 address the amount included for grizzly bear in the Notice for the Cascades Natural Resource District.

## ***Definitions***

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

**Decommission:** refers to either partial or complete treatment of roads with the intent to prevent motor vehicle access. Decommissioning can take into account site specific operating constraints and can use a variety of techniques provided that motorized access past the decommissioning point is reasonably prevented.

**Visual screening:** refers to windfirm vegetation and/or terrain features that prevent displacement or disturbance behaviour in Grizzly Bears, despite adjacent activities that might otherwise elicit these behaviours and may use merchantable or non-merchantable stems.

**Non-merchantable stems:** vegetation that is not commercially viable due to small piece size, incidence of decay, species, and/or stocking density.

**Spur road:** a small branch of a logging road, generally used as a temporary access to a setting.

## **Schedule 1 – General Wildlife Measures (GWMs):**

### **The GWMs 1-9 below apply to the entire specified area identified in Schedule A.**

1. Decommission all roads above 1600 m elevation within five years of harvest completion date or one year after successful regeneration is established on cutblock(s) accessed by that road, whichever occurs first.
2. Maintain or create healthy visual screening between roads that meet the definition of a permanent access structure and adjacent newly harvested openings. Where practicable, maintain a minimum 20 m wide visual screening. Where it is not practicable to maintain visual screening, plant a visual screen adjacent to the road of either native conifers or native deciduous species depending on site conditions.
3. No primary forestry activities within a minimum of 60 meters of identified Grizzly Bear dens. Harvesting boundaries within 60 m of Grizzly Bear dens must be windfirm.
4. Primary forest activities must not occur within 200 m of occupied Grizzly Bear dens between November 15th – April 15th, except road maintenance activities required to address safety issues or impending environmental damage.
5. For all Whitebark Pine stands that are not identified in Schedule C and have greater than 20% Whitebark Pine composition using basal area, all silviculture activities must target regrowth or retention of at least 70% of the pre-harvest whitebark pine composition of the cutblock.
6. Retain large (>30 cm diameter) coarse woody debris where they exist on the ground.
7. Range pastures over 1600 m elevation must limit livestock grazing to <15% utilization per year or the equivalent over a rest rotation schedule for grizzly bear forage species (e.g. cow parsnip (*H. lanatum*), glacier lily (*E. grandiflorum*), fireweed (*E. angustifolium*), sitka valerian (*V. sitchensis*), globeflower (*T. laxus*), anemone (*A. occidentalis*), and horsetail (*equisetum*)).
8. Do not permit calves younger than one month old in the Specified Area.
9. Limit browsing of *Vaccinium* shrub species to 10% of annual growth

**The GWMs 10-14 below apply to the Biogeoclimatic Ecosystem Classification (BEC) Site Series listed in Table 1, that occur within the specified area identified in Schedule A**

Table 1: Important Black Huckleberry (*Vaccinium membranaceum*) producing BEC subzones, variants, site series and associated planting density. The current official site series classification is from 1990 in Land Management Handbook 23 (Lloyd 1990). A new BEC field guide for the Thompson Okanagan region is in draft form and the draft site series are included in this table. The draft site series match more closely with the current version of the BEC mapping available in the BC Geographic Warehouse.

1990 BEC Subzone and Variant	1990 Site Series	2018 BEC Subzone and Variant	Corresponding 2018 Site Series (Draft)	Planting Density (stems/ha)
ESSFdv1	01, 04, 05	ESSFdv1	101, 104, 110	700
ESSFdv2	01, 04, 05	ESSFdv2	101, 104, 110	700
ESSFmw	03, 07	ESSFmw2	103.2, 110.2	600
ESSFmw	01, 04, 06	ESSFmw2	101.1, 101.2, 103.1, 110.1	700
ESSFmw	03, 04, 05, 06	MSmw2	101, 103, 104, 110	700
MSdc	03	MSdc1	104	600
MSdc	01	MSdc1	101, 110	700

10. Prevent excessive soil disturbance that would be detrimental to the rhizomatous roots of *Vaccinium* species when harvesting and carrying out site preparation for planting in site series identified in Table 1.
11. For harvested areas or burned areas with a pre-harvest (pre-burn) ground cover of *Vaccinium* species of 10% or greater, apply the planting density for the BEC variants provided in Table 1 in a clumped distribution. The intent of this GWM and Table 1 is to get a clumpy distribution that reflects natural forest openings and achieve a planting density that doesn't exceed Table 1.
12. GWM 11 does not apply within 20 m of roads where a visual screen is planted according to GWM 2.
13. Do not manage vegetation by chemical treatments within the specified area. Do not manage vegetation by broadcast mechanical treatments within site series identified in Table 1 in order to maintain the distribution and abundance of *Vaccinium* species.
14. Decommission all new spur roads to cutblocks or all new temporary access structures within the site series identified in Table 1 within five years of harvest completion date or one year after successful regeneration is established on cutblock(s) accessed by that road, whichever occurs first.

**The GWMs 15-18 below apply to those polygons within the specified area that are identified in Schedule B (spring habitat)**

15. Maintain a 50 m buffer around polygons identified in Schedule B where up to 25% of the buffer can be forest cover less than 15 m in height to allow for operationally functional cutblock boundaries. Timber harvesting must be designed so buffer and adjacent stands remain windfirm.
16. Do not construct roads, trails or landings within 50 m of those polygons identified in Schedule B.
17. No cattle grazing within those polygons identified in Schedule B between April 15<sup>th</sup> and July 15<sup>th</sup>.
18. Do not place livestock attractants within those polygons identified in Schedule B.

**The GWMs 19-22 below apply to those polygons within the specified area that are identified in Schedule C (Whitebark Pine)**

19. Do not harvest live Whitebark Pine in those polygons identified in Schedule C.
20. GWM 19 does not apply to those activities where the purpose is to maintain or enhance the health or cone production of Whitebark Pine stands.
21. Do not construct roads in those polygons identified in Schedule C unless there are no other practicable options to access potentially isolated harvesting opportunities.
22. Decommission roads or trails constructed to access potentially isolated timber in GWM 21 within five years of harvest completion date or one year after successful regeneration is established on cutblock(s) accessed by that road, whichever occurs first.

**The GWMs 23-25 below apply to those polygons within the specified area that are identified in Schedule D**

23. Do not use herbicide treatments or broadcast mechanical treatments within the polygons identified in Schedule D.
24. Do not construct roads, trails or landings within 50 m of those polygons identified in Schedule D unless there are no other practicable options to access potentially isolated harvesting opportunities.
25. Decommission roads or trails constructed to access potentially isolated timber through GWM 24 within five years of harvest completion date or one year after successful regeneration is established on cutblock(s) accessed by that road, whichever occurs first.



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Signed this 21 day of JAN, 2021

Thompson Okanagan Region Regional Executive Director

Ministry of Forests, Lands, Natural Resource Operations, and Rural Development

## Appendix 1:

The following information is provided as background information and support to the order establishing WHA 3-221. This appendix is not part of the order.

**A1. 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*.

A2. Authority to consider an exemption from these GWMs is provided in section 92(1) of the *Forest Planing and Practices Regulation*, section 79(1) of the *Woodlot Licenses Planning and Practices Regulation* and section 36(3) of the *Range 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 (MoFLNRO Regional Director of Resource Management) for the Region that the Specified Area or WHA is located with a rationale describing the nature of the problem and options to integrate Specified Area or WHA 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. Upon receipt of a complete exemption application, a determination will normally be made within 14 days of arrival. Incomplete packages will be returned to the proponent for re-submission.

A3. These GWMs do not apply to persons who must comply with the Worker's Compensation Act and the regulations under that Act (e.g. danger tree felling). Consistent with section 2(3) of the *Forest Planning and Practices Regulation*, exemptions from these GWMs are not required to meet safety requirements. Where a GWM cannot be achieved due to a safety concern, a person should consider developing a rationale related to the safety issue and keep it on file and notify the regional MFLNRORD office.

- A4. Other legislation and regulations may also apply to activities. First Nations may also have moratoriums, policies, and land use plans to consider that are relevant to grizzly bear management or other items mentioned in this order.
- A5. First Nations have local knowledge of bears and bear habitat. Anyone conducting primary forest activities that have the potential to impact grizzly bears should work with First Nations on grizzly bear management within the specified area.
- A6. Stocking standards will be developed for Forest Stewardship Plans and Woodlot License Plans that support the GWMs in this proposal.
- A7. GWMs 2, 21, and 24 as well points A9 and A21 in Appendix 1 use the term practicable. Refer to FRPA General Bulletin Number 3 'Use of the term practicable' for further guidance on the interpretation of this term in order to apply these measures. Consistent with the bulletin, decisions need to be documented. First Nations have identified a strong interest in being involved in these decisions.
- A8. GWM 2 (visual screening): Priority should be given to retaining vegetation for a visual screen. The highest priority areas for maintaining existing vegetation as a visual buffer for grizzly bears include Texas Creek, Blowdown Creek, Van Horlick Creek, Boulder Creek, and Gott Creek areas. Priority should also be given to other areas known (e.g. through published or unpublished data or local knowledge) to have high areas of grizzly bear use along roads or areas known to be grizzly bear migration corridors. Non-merchantable stems can be used for the visual screen. It is recognized that certain timber harvest practices, such as cable yarding or skidding to the road side, may result in the destruction of non-merchantable vegetation and create significantly increased operational costs to maintaining a vegetated visual screen and in some cases maintaining a visual screen could make cable logging settings not feasible. Determination of whether it is practicable to maintain visual screening should reference the guidance in Appendix 1 #A7 and the associated FRPA Bulletin and should include a consideration of scientific data to consider the risk to bears including known and potential migration corridors. The following points regarding visual screening are also considered:
- Maintaining a visual buffer should not jeopardize the health of the future stand and GWM 2 does not prevent treatment of a visual buffer where forest health concerns are identified.
  - If a cutblock extends across both sides of the road, the visual buffer should be applied on both sides of the road.
  - Avoid brushing along roads that would reduce the visual buffer; however, clearing of this vegetation for safety reasons (e.g. to open sight lines for traffic) is exempt from this GWM 2.
  - Where it is not practicable to maintain existing vegetation, planting should occur as soon as possible following harvest.

- If visual screening using man-made debris fences is employed these need to have wide openings at regular intervals to allow for grizzly bear and other animal movements.

A9. GWM 3 and 4 (den buffer): Sixty meters should be considered the minimum buffer distance and larger buffers between primary forestry activities and Grizzly Bear dens should be considered especially where activities are occurring surrounding the den. A Qualified Professional knowledgeable in Grizzly Bear ecology can determine whether a den is a grizzly bear den and/or if it is occupied. The Qualified Professional should include input from First Nations in their determination. The following are considerations for designing harvesting around Grizzly Bear dens:

- If there are two dens in close proximity, connectivity between the two is maintained.
- Harvesting around dens should consider retaining adjacent habitat features such as ponds, streams and movement corridors connecting them.

A10. GWM 5: The intent of this measure can be met using natural regeneration or planting as long as the target composition of Whitebark Pine is met at planting. The target is 70% of the pre-harvest Whitebark pine composition of the cutblock. For example, if a cutblock has 50% Whitebark Pine prior to harvest, the target is to retain or regrow the cutblock to at least a 35% Whitebark Pine composition. This GWM is intended to maximize retention of healthy trees and maximize regrowth of Whitebark pine through subsequent planting activities.

A11. GWM 10 (soil disturbance): This measure can be met using any practice that prevents excessive ground disturbance and the following practices are some examples but are not an exhaustive list. A site plan developed by a Qualified Professional would also meet this GWM.

- Where possible, conduct ground based timber harvesting on a snowpack or frozen ground that would buffer disturbance to *Vaccinium* species
- Cable logging;
- Use low intensity broadcast burning when appropriate;
- Minimizing the amount of skid trails; and/or
- Use of low ground pressure equipment

A12. GWM 11: The percent cover of *Vaccinium* species in the pre-harvest stand is determined by assessing percent cover by sampling in representative sites within the cutblock boundary at the appropriate time of year. The number of representative sites should reflect the heterogeneity of the proposed cutblock. This can be done during the forestry cruise surveys.

A13. GWM 11: Planting according to GWM 11 (reduced planting density where *Vaccinium* species are > 10%) should consider the existing distribution of *Vaccinium* species in the cutblock. Additional guidance for planning silviculture treatments at a reduced planting density can be found in the following guidance documents:

- Manning, Cooper and Associates. Prepared for Ministry of Water, Land, and Air Protection. 2004. Silviculture Guidelines and Practices for Maintaining or Recruiting Key Habitat Objectives. 2004. 120 pp.
- British Columbia. 2000. Establishment to Free Growing guidebook – Vancouver Forest Region. Version 2.3. 161 pp. (Appendix 11: Guidelines for Integrating Grizzly Bear Habitat and Silviculture in the coastal Western Hemlock Biogeoclimatic Zone; and/or

A14. GWMs 1, 14, 22, and 25: The amount of road decommissioned has to be enough to reasonably prevent motorized access into the specified grizzly bear habitat. The method of decommissioning is intended to allow flexibility and use of the terrain to choose the most appropriate location and method of decommissioning. The location of road decommissioning is flexible as long as it happens before the road crosses the grizzly bear habitat specified in the GWMs. An example that would meet the definition of this GWM would be removal of a bridge on a stream or gully large enough that ATV users could not cross or re-create their own crossing. Another example would be to completely re-contour and plant three to five hundred meters of the road (exact amount required would be determined based on the terrain). The installation of gates or similar options would meet the intent of these GWMs provided that structures are maintained if damaged in such a way that they no longer prevent motorized access. The reference to trails in GWMs 22 and 25 is specific to newly constructed trails for forest harvesting and does not refer to other types of trails.

A15. GWMs 1, 22, and 25: Data on the planting delay in the Lillooet TSA from 2000 to 2016 indicates that planting is completed on average within 1.9 years based on currently available data. If only one planting is required, then these data suggest regeneration would be established and decommissioning of roads would occur within approximately 3.5 years, but if a second planting is required the time period would be longer.

A16. GWM 14: GWM 14 does not apply to main haul roads. This measure applies to temporary roads such as spur roads and roads within cutblocks that will no longer be required after harvesting is completed.

A17. GWM 19 does not apply to harvesting of cones and/or seeds for whitebark pine restoration projects.



A18. GWMs 23 to 25: The polygons in schedule D will be reviewed (approximately every 20 years). The review will assess if the polygons still contain Vaccinium species and any that have less than 10% cover of Vaccinium species will be considered for removal from schedule D. The review will also consider areas with a high cover of Vaccinium species and/or high fruit producing areas that have been identified through ongoing grizzly bear research and monitoring as replacement areas.

A19. For industrial users (e.g. mineral tenure holders) requiring an Occupant License to Cut, the GWMs related to harvesting would apply. In addition, refer to FRPA General Bulletin Number 16, which has some guidance on the application of FRPA to industrial users including mineral interests.

A20. If a Forest Act road permit or special use permit is required for roads for industrial users (e.g. mineral exploration) an exemption is not required for the GWMs associated with road construction or decommissioning (GWMs 1, 14, 21, 22, 24, 25) provided that conditions on the permit are consistent with those GWMs. For example:

- New roads are decommissioned upon completion of all mineral exploration activities that require road or trail access; or
- If access is required longer than 5 years, actions are taken on newly constructed roads over 1600 m, through Schedule C polygons, or within 50 m of Schedule D polygons to restrict access. This will be site-specific and could include, but is not limited to the use of signage, gates, and/or safe (defined as large and clearly visible) impassible barricades.