# **PROVINCE OF BRITISH COLUMBIA**

# ORDER OF THE MINISTER OF WATER, LAND AND RESOURCE STEWARDSHIP

# Forest and Range Practices Act

# Ministerial Order No.

I, James Cuell, as delegate of the Minister of Water, Land and Resource Stewardship, being satisfied that the following described areas contain habitat that is necessary to meet the habitat requirements for moose (*Alces alces*); and the habitat requires special management that is not otherwise provided for under the Government Actions Regulation (GAR) or another enactment, order that:

- a. The General Wildlife Measures (GWMs) outlined in Schedule B are established and are to be applied to the ungulate winter range U-6-040 in the Kispiox Timber Supply Area (TSA) as shown in the Schedule A;
- b. Where there is any discrepancy between the ungulate winter range boundaries as shown in the Schedule A and the Geographic Warehouse spatial file (WHSE\_WILDLIFE\_MANAGEMENT.WCP\_UNGULATE\_WINTER \_RANGE\_SP), the boundaries as detailed in the GIS file will take precedence. The centre point of the line on the map denoting the ungulate winter range establishes the boundary;
- c. The GWMs outlined in Schedule B do not apply to the Prince Rupert Gas Transmission Project (BC Environmental Assessment Certificate #E14-06), as described in the Prince Rupert Gas Transmission Project (Project) Schedule A Consolidated Certified Project Description for Environmental for Assessment Certificate #E14-06, December 20, 2017, including any subsequent extensions or amendments;
- 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 specify results or strategies in relation to the objective set out in section 7(1) of the Forest Planning and Practices Regulation for the winter survival of moose in the portion of the Kispiox TSA covered by this Order (formerly Cranberry Section 7 Notice consolidated into the Kispiox in 2009); and
- e. Woodlot license agreements are exempt from this Order.

March 20, 2025 *Date* 

Authorized Signatory of Water, Land and Resource Stewardship

James Cuell, Area Executive Director - North Area Printed Name and Title (if authorized signatory)

(This part is for administrative purposes only and is not part of the Order.)

Authority under which Order is made:

Act and	Government Actions Regulation (B.C. Reg. 582/2004) s. 9(1), 9(2), 12(1), and 12(2)
section:	Forest Planning and Practices Regulation (B.C. Reg.221 /2004) s. 7(1), 7(3)



Schedule A: Ungulate Winter Range Areas u-6-040 map

#### Schedule B

#### Part 1: Definitions

1. Unless otherwise specified, 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 there under including the *Forest Planning and Practices Regulation* (FPPR).

In this Order and the schedules to this Order:

- a) **clumps** means the pattern of distribution of vegetation within a harvest opening, and is characterized by groups or clusters, as opposed to uniformly or randomly distributed vegetation.
- b) cultural restoration means the incorporation of rehabilitation techniques (see definition "rehabilitate") to restore access structures to a state that maintains access to cultural uses, specifically on access structures overlapping on known historical First Nation's trails.
- *c)* evident wildlife trail means a well-established trail (eroded into the LFH soil layer) with evidence of use by moose such as moose pellets, droppings, bark stripping, browse, rut rubs and/or tracks.
- d) key moose winter browse shrub and tree species means any or all of the following: willow (*Salix* spp.), red-osier dogwood (*Cornus stolonifera*), high-bush cranberry (*Viburnum edule*), mountain ash (*Sorbus* spp.), beaked hazelnut (*Corylus cornuta*), birch (*Betula* spp.), black cottonwood (*Populus trichocarpa*), trembling aspen (*Populus tremuloides*).
- e) key moose winter forage site series means moose forage sites within moose Winter Range Management Zones identified as site series.
  - i. ICH mc1: site series 01, 03, 04, 05, 06 and 31
  - ii. ICH mc1a: site series 02, 03
  - iii. ICH mc2: site series 03, 04, 06, 07, 32, 51, 53, 54, F102, Ws01
  - iv. CWH ws2: site series 03, 04, 05, 06, 07, 08, 09, 10, 11
  - v. SBS mc2: site series 05, 06, 07, 10, 12, 31, Ws04, Wf02
- f) linear feature means an anthropogenic disturbance that is linear in nature such as natural resource exploration lines and trails, transmission lines, access feature rightof-ways, pipeline right-of-ways and railways.
- g) **mature and old forest type** means mature and old seral types as defined in the *Biodiversity Guidebook*. Mature and old include forests primarily of co-dominant trees, with canopies that vary vertically, horizontally, or both, with trees aged 80 years old or greater depending on species and site conditions.
- h) **qualified environmental professional or "QEP"** means a person who is registered and in good standing with an appropriate British Columbia professional organization

under the *Professional Governance Act*. They are expected to hold expertise in moose ecology and must consider cumulative knowledge (e.g. Western science, Indigenous Knowledge, local knowledge) while conducting assessments.

#### i) **rehabilitate** means

- i. de-compacting compacted soils,
- ii. returning displaced surface soils, side-cast, and berm materials, and
- iii. managing for erosion and sedimentation.
- j) **windfirm** means a buffer of standing trees from an ecologically suitable species that are resistant to overturning based on anchorage or strength of the root/soil mass.

#### Part 2: Objectives

#### **Objective 1: Habitat Enhancement**

If a holder of an agreement under the *Forest and Range Practices Act* or the *Forest Act* is undertaking work for moose habitat enhancement within the moose Core Winter Range (CWR) or the moose Winter Range Management Zone (WRMZ), the holder must prepare a moose habitat enhancement plan with clear and measurable moose habitat objectives, developed by a QEP. Further details can be found in the attached U-6-040 Xadaa UWR guidance document.

#### **Objective 2: Wildlife**

Forest management, planning, and operations within the net area to be reforested of a cutblock within the MWRZ will implement strategies that result in a stand that:

- Maintains the pre-harvest deciduous tree component;
- Promotes the establishment and maintenance of abundant key moose winter browse shrub and tree species appropriate to the site;
- Maintains thermal and security cover attributes; and
- o Facilitates forest connectivity and animal movement

#### **Objective 3: Roads**

Road construction within the CWR should be minimized to the extent practicable and only to access areas for significant timber harvesting that would otherwise be inaccessible. Any roads should be constructed away from wetlands, mineral licks, and any other known moose attractants or habitat features in the CWR. Every practicable effort should be made to minimize road footprint (road length and running width) within the CWR. Right of ways must be managed with enhanced screening requirements for all roads within the CWR. Roads within the CWR should be deactivated when no longer required to meet the forestry objectives they were built for.

#### Part 3: General Wildlife Measures (GWMs)

#### **Core Winter Range (No Harvest Zone)**

1. Timber harvesting, silviculture treatments, road construction, deactivation, and rehabilitation are prohibited between January 1st and June 14th. Activities permitted between January 1st and June 14th include:

- Hauling;
- Road maintenance

Activities permitted between June 15<sup>th</sup> and December 31<sup>st</sup> include:

- Moose habitat enhancement related to Objective 1 in Schedule B;
- Hauling;
- Road construction, maintenance, deactivation, and rehabilitation.
- 2. Access structures constructed for moose habitat enhancement in the CWR must be Culturally Restored
- 3. Report moose vehicular collision mortality events to the B.C. Conservation Officer Service (COS)

## Winter Range Management Zone (Conditional Harvest Zone)

#### Planning

- 4. Report moose vehicular collision mortality events to the B.C. COS.
- 5. Forest harvest openings will be designed so that >80% of the net area to be reforested is within 100 metres from Windfirm patches of conifer or mixed conifer deciduous in the Mature and Old Forest Type or oldest representative forest type of the block.
- 6. Forest harvest openings will be an asymmetrical shape.

#### Management

- Primary forestry activities, excluding road construction, maintenance, and deactivation are prohibited in stands that are greater than 50% deciduous trees, as determined by stems/ha >= 12.5cm dbh, unless in accordance with Objective 1 in Schedule B.
- 8. Primary forestry activities, excluding road construction, completed within the wetland and stream riparian management zone defined by the *Forest Planning and Practices Regulation* must:
  - include retention levels greater than 70% basal area; and
  - not result in forest harvest openings greater than 0.1 ha.

## Retention

- 9. Advanced conifer regeneration poles and saplings, where available, will be retained and distributed across cutblocks as clumps that are a minimum 25% of each forest harvest opening by hectares.
- 10. Evident wildlife trails will be screened with a 10m windfirm buffer on each side of the trail, and will be clear of logging-related debris.

11. Outside of the road and roadside processing and decking areas, and within the net area to be reforested, retain if present, a greater than 30m windfirm, visual screening buffer of vegetation or topography adjacent to linear features.

## Silviculture

- 12. Silviculture in key moose winter forage site series will result in complex horizontal and vertical stand structure on the net area to be reforested (NAR) for the standard unit (SU). Including:
  - Gaps in conifer stocking are between 0.02 and 0.1 ha each occupying 25-30% of the net area to be reforested.;
  - Manage the SU as a mosaic with gaps and conifer stocking and a minimum of 400 stems/ha and a target stocking standard (TSS) of 800 well-spaced stems/ha of preferred and acceptable species
  - a maximum inventory label density of 2000 countable conifer stems/ha at free growing;
  - subalpine fir (*Abies lasiocarpa*) and/or amabilis fir (*Abies amabilis*) are considered preferred species where it is ecologically suitable;
  - Key moose winter browse shrub and tree species are considered non-deleterious when assessing for free growing. Any required manual brushing of broadleaf tree species required to achieve a free growing conifer condition will be targeted within 1m of western redcedar, spruce, lodgepole pine or Douglas-fir.
- 13. The use of herbicides is prohibited within all areas covered in this Order.

## Access

- 14. New permanent access structures are prohibited within the riparian management areas for all wetland classifications under *Forest Planning and Practices Regulation*. Temporary access structures located within the riparian management area will be rehabilitated within 1 year of regeneration date.
- 15. Ploughing of access structures will break a minimum of one berm every two kilometers in the winter in a way that creates road egress routes for moose.
- 16. Temporary access structures will be rehabilitated within 1 year of regeneration date.
- 17. Permanent access structures will be deactivated following achievement of regeneration delay at the junction with temporary access structures and will have access control at the start of the access structure when primary forestry activities are inactive.

# U-6-040 Xadaa UWR GUIDANCE DOCUMENT

This document is not intended to be part of the Order and is instead intended to provide guidance that may be helpful in management of the GWMs mentioned in the Order. The following sections summarize guidance in achieving GWMS 1 through 17. The guidance in moose habitat management originates from the Sustainable Resource Management Plans in the Kispiox TSA, agreements with First Nations and other relevant cumulative knowledge such as western ecological, Indigenous and local knowledge.

# Guidance for Xadaa Moose Ungulate Winter Range

**Standard:** a component of the guidance document that provides suggested direction for the implementation of the Order

**Guideline:** a component of the guidance document that provides suggested guidance and requires professional judgement for it to be applied appropriately at the local level

**Best Management Practice:** a component of the guidance document that suggests a practice or strategy to help implement the overall purpose of the standards and guidelines

Standards	<ul> <li>Maintain the natural deciduous/conifer mix of tree species and shrubs as expected for early seral conditions in sites with moderate to high forage potential. This means not artificially accelerating seral conditions to meet timber objectives but allowing key moose winter forage species growth.</li> <li>Encourage rotational forest stand development (i.e. harvest at early stand maturity) on sites conducive to both early seral forage and conifer production, while considering visual screening and snow interception. The forest management focus of the slope adjacent to the floodplain is to provide security cover.</li> </ul>
Guidelines	<ul> <li>Forage</li> <li>Forests within moose winter range will have a forage management emphasis that produce deciduous browse species such as those defined as key moose winter browse shrub and tree species, while simultaneously reaching stocking requirements.</li> <li>Stand spacing, pruning, reduced conifer-stocking standards and varied conifer spacing are intended to promote the duration of early seral stage conditions and foster the production of key moose winter browse shrub and tree species.</li> <li>A suitable gap may contain scattered trees providing that suitable forage density is available. Suitable gap openings associated with wetlands need to exclude any area that would be defined as a wetland. Efforts to maintain and protect existing natural gaps during development, harvest, and site preparation activities should be undertaken.</li> <li>Maintain the natural deciduous/conifer mix of tree species and shrubs as expected for early seral conditions in sites with moderate to high forage potential.</li> </ul>
	<ul> <li>Adequate shelter and screening attributes can be achieved by utilizing the following guidance:</li> <li>For GWM #5, the largest 10% stem diameter trees will be retained as anchors.</li> </ul>

	- Provide adequate security cover within 100 metres line-of-sight in any given direction. Mature and old stands, stand retention or wildlife tree retention areas should be in the range of 200 metres apart, to provide the combination of thermal and security cover.
	- Retain a proportion of mature and old-growth conifer stands with canopy structures for snow interception and for moose predator-response behaviour. Preferences are for areas adjacent to foraging areas.
	- In regenerating areas and plantations where security and thermal cover are lacking, identify conifer stands or large patches suitable for future cover. Manage these for cover attributes that mimic natural forests in terms of visual screening and large, well-formed branchy veteran trees capable of snow interception and provision for thermoregulation.
	- Retain security and thermal cover within 50 to 100m from useable forage areas appropriate to the size of the habitat unit.
	- Retain a percentage of large coniferous trees within deciduous leading stands, for thermal cover and bedding microsites.
	- Retain, enhance or plant visual screens to obscure the winter ranges from high- use transportation corridors. Strategies for screening should ensure they maintain these attributes where possible in the short term and may allow for screening to improve in the medium (5 years and greater) to long term (greater than 20 years).
	- Retention of windfirm species, or species that are more resistant to windthrow should follow direction outlined in the <i>BCTS Windthrow Manual</i> .
	Connectivity
	- Connectivity between UWRs in neighboring Timber Supply Areas to prevent cumulative effects on the local moose population, such as considering road densities, harvest block layout, access management and other habitat components.
	- Incorporate moose winter ranges in the design and application of forest connectivity.
Best Management Practices	Forest harvesting
	- Timber harvesting will be preferentially conducted using partial or alternative silvicultural systems including uniform seed tree with group reserves, group seed tree, uniform shelterwood with group reserves, single tree selection with group reserve, and group selection are preferred.
	- Where feasible, concentrate wildlife tree retention areas around Riparian Management Areas, with a preference for the largest diameter trees within the wildlife retention patch.
	Silviculture
	- Preference will be given to ground-based vegetation management.
	- Reduction to initial planting density, towards minimum density will decrease potential future development of dense stands not conductive to understory shrub growth.
	- If establishment and/or conifer release brushing is required to meet minimum

stocking standards:
<ul> <li>Retain all low growing high value moose forage species including Carex and Cyperaceae sp. (sedge), Equisetum sp. (horsetail), Paxistima myrsinites (falsebox), Ribes sp. (currant and gooseberry), Epilobium angustifolium (fireweed) and Poaceae sp. (grasses).</li> </ul>
- Where possible, cultural and/or prescribed burning will be considered and encouraged as a tool to restore habitat suitable for moose.
Roads and Access Management
<ul> <li>Road deactivation and restoration activities should be communicated to the overlapping First Nation with information on the location and timing of the proposed activities.</li> </ul>
- Limit road development and recreational use within moose winter ranges. Where road avoidance is not practicable, use measures to maintain security, such as maintaining dense coniferous visual screens, deactivating/closing roads before November, building temporary access structures roads and/or rehabilitation road right-of-ways.
- Minimize moose disturbance in winter by using measures such as: geographically focusing roads and operations within a given winter range, restricted access and timing of activities.
- Allow for natural establishment of willows along decommissioned road right-of- ways.
<ul> <li>Road-permit haul roads constructed to access blocks within the Moose WRMZ will be deactivated to a standard that deters motorized access and creates unfavorable conditions for wolf and snowmobile travel. Examples of techniques but not limited to: slash and debris piled in 400 m segments, ripping the road up and planting trees.</li> <li>Where this is unfeasible, an alternate road of the same road class within the same watershed unit will be deactivated in a 1:1 road length ratio within three years post-harvest.</li> </ul>
<ul> <li>Within moose WRMZ, where feasible, roads will be constructed &gt;200 m from the moose CWR, wetlands, natural openings and mature deciduous stands.</li> </ul>
- Report moose vehicular collision mortality events to Ministry of Forests and overlapping First Nations.

# Moose Habitat Enhancement

Within the context of the Order, moose habitat enhancement is defined as habitat management activities with the primary goal of promoting moose survivorship. To achieve Objective 1, moose habitat enhancement will be strategically planned and outlined in a moose habitat enhancement plan for moose Core Winter Ranges and Winter Range Management Zones of the Order.

The plan is to be developed by a Qualified Environmental Professional (QEP) who has expertise with moose habitat requirements. It should be reviewed and approved by the overlapping First Nations and the Province. Preferably, the plan is created in collaboration with the affected First Nations, licensees and the Province to ensure that it:

- meets the intent of the Order;
- does not compromise other First Nation or BC initiatives; and
- integrates current moose population and habitat information and knowledge;
- Habitat Enhancement examples could include prescribed or cultural burning under wildfire risk reduction, thinning activities, or other strategies that maintain and/or improve:
  - forage supply and quality;
  - shelter and screening attributes;
  - positively contributes to moose population objectives.

Plan submission should harmonize with the current annual cutting permit consultation/referral process where applicable.

# **Moose Habitat Enhancement Plan Information**

**Project Goal(s):** a description of the desired future habitat condition of the site and how this will relate to the local moose population.

Project Rationale: a description including:

- 1. why the enhancement is required;
- 2. the intent of the treatment;
- 3. the anticipated benefit to moose and other benefits (if applicable); and
- 4. possible risks of the project and how these will be avoided or mitigated.

Objectives: a set of Specific, Measurable, Achievable, Realistic, and Timebound (SMART) objectives.

General Project and Site Information

- Project Identification: site ref #, treatment Unit ref #'s, First Nation Territory, First Nation Whilp, moose Population Management Unit, Wildlife Management Unit;
- Project description: enhancement treatment type, project background, site selection rationale, treatment unit prioritization, other project benefits and/or linkages, project risks, issues and concern;
- BC moose information: population trends and demographics of the overlapping moose Population Management Unit, historical seasonal use observations, information from previous ground or aerial assessments, harvest information (effort, amounts, etc);
- Indigenous moose knowledge: historical and current use, site importance, noted issues or benefits of the site at stand and landscape scale, traditional hunting area Y/N, other cultural values at the site (medicinal plants, cultural trees, other); and
- a georeferenced site map.

# **Desktop Project Overlap Assessment Information:**

- species at risk (grizzly bear, other);
- archeological and cultural resource overlaps;
- recreation areas;
- Land Act areas:
- land use planning objectives;
- tenures: forestry, Guide license, Trapline or range

## Field Assessment and Site Characterization Information:

- General site conditions: UTMs, crew names, date, BEC Subzone and site series, watershed unit, landscape unit, land cover class, site area (ha), elevation, aspect, slope, snow depth (if available), stand type, stand age, slope position, structural stage;
- utilization evidence: browse, pellets, tracks, beds
- site habitat impacts or risks: stand health, fire, timber value, willow borer, other;
- road information: proximity to road(s), road type, other
- information about treatment unit priority and prioritization considerations
- a site diagram and site photos

## Enhancement Treatment Field Assessment Information:

- An assessment of baseline conditions that measure the pre-treatment conditions of the features that will be impacted and are anticipated to provide positive change for moose as a result of the treatment; and
- an assessment of pre-treatment moose utilization.

## Moose Habitat Enhancement Treatment Recommendations Information:

- treatment type and target attribute(s)
- detailed treatment procedures
- site sensitivity considerations: bird nesting mitigation measures, invasive plant management measures, other.

*Monitoring Strategy:* a description of what and when monitoring activities are required with recommendations linked to the pre-treatment data sets that can be replicated during the monitoring phases, integration of local indigenous capacity for the monitoring activities where possible and implementation commitments and a description of the dedicated resources.

## **Information for Exemption Requests**

Authority to consider an exemption from the requirement to comply with these General Wildlife Measures (GWMs) is provided in Section 92(1) of the *Forest Planning and Practices Regulation*. This authority to consider and grant an exemption is delegated by the minister responsible for the *Wildlife Act*.

If a forest licensee wishes to apply for an exemption from the General Wildlife Measures of this order, the applications will be accepted in the form of a completed "General Wildlife Measure – Exemption Request" form, available from the Skeena Ecosystem Section of the Ministry of Water, Land and Resource Stewardship. An explanation of the considerations and requirements for an exemption is included in the form. The forest licensee considering an exemption is also encouraged to contact the Skeena Ecosystem section prior to submission to determine the feasibility of an exemption given the specifics of the situation.

In addition to the above completed form, the licensee must also include a record of communication on the proposed exemption with potentially affected First Nations. The applicant should:

- 1. Determine First Nations with an asserted territory that overlaps the location of the activities proposed for exemption.
- 2. Submit a copy of the Exemption Request form to the potentially affected First Nations for their review and comment.
- 3. Submit First Nations comments, if any, to the Ministry recipient of the Exemption Request form.

Timing of the submission of the Exemption Request form and the First Nation comments are at the discretion of the applicant, however, final decision on the exemption requires consideration of the First Nation's comments by the decision maker.

## Exemption guidance for specific General Wildlife Measures of this Order

## Exemption to General Wildlife Measure #13

The use of herbicides will only be permitted for the control of invasive plants and/or noxious weeds as defined by the *Integrated Pest Management Regulation*. In collaboration with First Nations whose territories overlap the exemption area, a Qualified Environmental Professional will be required to determine if there are food values on site prior to herbicide application.

## Exemption to General Wildlife Measures #16 and 17

Exemptions will include an access management plan that will meet the intent of the corresponding GWM. In the event it is unfeasible for a road to be deactivated or rehabilitated based on GWMs 16 and 17, an alternate road of the same road class within the same watershed unit will be deactivated in a 1:1 road length ratio within three years post-harvest.