



UNGULATE WINTER RANGE SUMMARY

*For two Mountain goat (*Oreamnos americanus*) UWRs in the Mackenzie Forest District¹ (UWRs U-7-029 and U-7-030)*

These Ungulate Winter Ranges (UWRs) have been approved under the *Forest and Range Practices Act (FRPA)* and the *Oil and Gas Activities Act (OGAA)*, and are consistent with existing policies and directives for the establishment of UWRs. U-7-029 and U-7-030 are consistent with direction provided within the *Mackenzie Land and Resource Management Plan (LRMP)*², which notes an objective to ‘*Maintain habitat needs of all naturally occurring wildlife species across the Plan area*’ with a specific strategy to identify and manage high value mountain goat habitat in specific Resource Management Zones where they occur.

1. Biological Justification / Supporting Rationale

British Columbia supports approximately half of the world’s population of mountain goats and are thus a high priority for conservation management. Mountain goat is listed under the Government Actions Regulation as a category of ungulate species that may be impacted by forest and range practices, requiring UWRs for their winter survival. While the provincial management goal is to maintain viable, healthy and productive populations of mountain goats throughout their native range, it is also recognised that this species is particularly sensitive³ and management efforts should focus on habitat, disturbance, and access.⁴ These UWRs support that goal.

a) Conservation Status / Priority

- **Provincial / Federal Conservation Status:** BC list –Blue/ COSEWIC ranking – Not ranked
- **Conservation Framework Highest Score / Goal:** Priority 1 for Goal 2: Prevent species and ecosystems from becoming at risk

b) Expected Conservation Achievements /Outcome

Current management for mountain goat within the Mackenzie Natural Resource District includes two UWRs (U-7-004 and U-7-017) and one Wildlife Habitat Area (U-9-001).

Together, U-7-029 and U-7-030 will protect and manage an additional 107,204 hectares of core high elevation winter habitat.

¹ Note that while the ‘Mackenzie Natural Resource District’ name is in common usage, the ‘Mackenzie Forest District’ is currently the correct legal term. Depending on context, both district names may appear in this document.

² Province of British Columbia (2000). *Mackenzie Land and Resource Management Plan*.

www.for.gov.bc.ca/tasb/slrp/lrmp/princegeorge/mackenzie/plan/files/lrmp/Mackenzie_LRMP_Feb2001.pdf

³ Festa-Bianchet, M. And S.D. Côté. 2008. Mountain goats: ecology, behaviour and conservation of an alpine ungulate. Island Press, Washington D.C.

⁴ Mountain Goat Management Team. 2010. Management plan for the mountain goat (*Oreamnos americanus*) in British Columbia. Ministry of Environment. British Columbia Management Plan Series.

General Wildlife Measures (GWMs) that specify timing and limitations on permanent access structures within 500 metres of the core UWR units were developed to help address the sensitivity of this species to human-induced disturbance, and are consistent with recommendations included in the provincial mountain goat management plan⁵ as well as the *Compendium of Wildlife Guidelines for Industrial Operation Projects in the North Area, British Columbia*.⁶

2. Description of UWRs

Mountain goat winter range in the interior of British Columbia is characterized by steep slopes and exposed rock outcrops with warm aspects and adjacent suitable forage.⁷ In the Mackenzie Natural Resource District, mountain goats occur primarily in high elevation alpine and subalpine habitats, seldom far from cliffs or steep 'escape terrain' with winter sun exposure and adjacent forage availability.⁸ Lower elevation forests may be used during periods of heavy snows and cold temperatures, while wind-scoured high elevation areas enable improved mobility and access to forage. Mountain goats generally do not disperse further than 500 metres from these escape terrain habitats.⁹ They will move seasonally to access high value mineral licks.

The Mackenzie Mountain Goat Project, initiated in 2001 and focussed on a number of specific populations (Ospika, Osilinka and Akie-Pesika), included model development, population inventory and an adaptive management trial utilising >3500 observations on 69 radio-collared mountain goats to support habitat supply modelling and adaptive management guidance.^{10,11} Field verification of the model occurred in 2006 in conjunction with the development of a mountain goat UWR in the Fort St. James Forest District.¹² This model was refined in 2011 using an updated digital elevation and vegetation resources inventory (VRI) and subsequently applied to the rest of the Mackenzie Forest District in association with the development of U-7-030. Outputs were further augmented to capture significant mineral licks and trails that exhibited late winter use to improve the functionality of U-7-029.¹³ No high value mineral licks or trails were identified as part of U-7-030. A known canyon-dwelling mountain goat population was also identified and included within U-7-029.

Measures were included to address the sensitivity of mountain goat to human disturbance through the implementation of access and timing restrictions within 500 metres of the core UWR units.

⁵ Mountain Goat Management Team. 2010. Management plan for the mountain goat (*Oreamnos americanus*) in British Columbia. Ministry of Environment. Victoria BC.

⁶ Ministry of Forests, Lands and Natural Resource Operations. 2014. A Compendium of Wildlife Guidelines for Industrial Development Projects in the North Area, British Columbia. Interim Guidance. <http://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?subdocumentId=9921>

⁷ Poole, K.G., K. Stuart-Smith and I.E. Teske. 2009. Wintering strategies by mountain goat in interior mountains. *Can. J. Zool.* 87:273-283.

⁸ McNay, R.S., R.M. McKinley and L. Giguere. 2006. Identification of mountain goat winter range in the Fort St. James Forest District. Wildlife Infometrics Report No. 194.

⁹ Poole, K.G. and D.C. Heard. 2003. Seasonal habitat use and movements of Mountain Goats, *Oreamnos americanus*, in east-central British Columbia. *Canadian Field-Naturalist* 117(4):565-576.

¹⁰ Hengeveld, P.E., M.D. Wood, R. Ellis and R. Lennox. 2003. Mountain goat habitat supply modelling in the Mackenzie Timber Supply Area, North-central British Columbia. Version 1.0. PFWWCP Report No. 271.

¹¹ Courbould, F.B., J.B. Ayotte, M.D. Wood and G.W. Blackburn. 2010. Experimental evaluation of logging impacts on mineral-lick use by mountain goats, north-central British Columbia. PFWWCP Report No. 343.

¹² Sulyma, Randy. 2006. Validation of modeling results for mountain goat Ungulate Winter Range in the Fort St. James Forest District. Environmental Stewardship Division, BC Ministry of Environment. Prince George BC. 15pp.

¹³ Wright, C., V. Brumovsky and R.K. McCann. 2012. Delineating Ungulate Winter Range for Mountain Goats in North-central British Columbia. Wildlife Infometrics Inc. Report No. 271. Mackenzie, BC.

Maps of both approved ungulate winter ranges are included in Appendix 1.

3. General Wildlife Measures

The following General Wildlife Measures (GWMs) were approved May 24, 2016.

In the event of any discrepancy between this summary report and the legal order (including any subsequent amendments), the legal order applies. It may be accessed at http://www.env.gov.bc.ca/wld/frpa/uwr/approved_uwr.html

Schedule 1 – General Wildlife Measures

Definitions:

In this schedule:

- a) Words and expressions not defined in this Order have the meaning to them in the *Forest and Range Practices Act* and regulations made thereunder, unless context indicates otherwise,
- b) “primary forest activity” is defined as in the *Forest Planning and Practices Regulation*,
- c) “decommission” refers to either partial or complete treatment of roads and trails with the intent to prevent, as much as possible, motor vehicle access while taking into account site-specific operating constraints; where practicable this activity will include right-of-way revegetation activities to manage long-term access,
- d) “mineral exploration activity” means an activity involving the cutting of trees or construction and/or maintenance of roads and trails related to the exploration and development of a mineral or placer tenure under the *Mineral Tenures Act* and which requires a Notice of Work permit under the *Mines Act*,
- e) “mineral cell” means a Mineral Titles Online claim acquisition unit and is 16 to 21 hectares, depending on latitude, and
- f) “mountain goat core winter range” are those winter range units established by way of this Order.

Harvesting:

1. Primary forest activities must not result in the removal of forest cover within a mountain goat core winter range, except as provided in GWM 2 or GWM 3.
2. GWM 1 does not apply where:
 - a) guyline anchors and tailholds are required to facilitate timber harvesting adjacent to the mountain goat core winter range; or,
 - b) trees felled for the purposes in (a) that fall within the designated mountain goat core winter range are retained on-site.
3. GWM 1 does not apply for the purposes of mineral exploration activities if:
 - a) exploration activities occur outside of the critical late winter and lambing period of January 15th – July 15th,
 - b) exploration activities use existing clearings, trails and roads unless it is not practicable to do so;

- c) any necessary tree harvesting avoids mature stands (≥ 80 years old) and avoids the removal of lichen-bearing trees, unless it is not practicable to do so;
 - d) an individual forest opening (defined as the total tree harvested area created for the purposes of mineral exploration and mining activity) is not greater than 1 ha, not including forest openings for the purposes of building trails and roads;
 - e) the total of individual forest openings (defined as the total tree harvested area created for the purposes of mineral exploration activity), including those created for the purposes of building trail and roads does not exceed:
 - i. 10 percent of the mineral cell, OR
 - ii. 10 percent of any defined aggregate of mineral cells up to a maximum of 25 mineral cells;
 - f) new trails and roads do not have a running width greater than 3.5 metres except for the purposes of safety or culvert placement; and
 - g) actions are taken on newly constructed or reconstructed trails and roads to restrict access. This will be site-specific and could include, but is not limited to:
 - i. use of signage and gates on active trails and open roads where practicable,
 - ii. use of signage and safe (defined as large and clearly visible), impassable barricades across seasonal or permanently deactivated road surface widths.
4. All helicopter logging activities conducted within 2000 metres line-of-sight of a mountain goat core winter range must take place during the period starting July 15 and ending October 31.
5. Within 500 metres of mountain goat core winter range, primary forest activities must take place during the period starting July 15 and ending October 31.
6. GWM 5 does not apply if:
- a) it is determined by a qualified professional knowledgeable in mountain goat ecology that the mountain goat core winter range units and the adjacent 500 metres referred to in GWM 5 is unoccupied by mountain goat; and
 - b) all primary forest activities cease if the presence of mountain goat are indicated within the mountain goat core winter range unit referred to in a) or within 500 metres of the mountain goat core winter range; and
 - c) any indication of mountain goat occupation during primary forest activities is reported to the Ministry of Forests, Lands and Natural Resource Operations, Director of Resource Management, (Omineca Region) within 72 hours of the work stoppage; and
 - d) continuous ground monitoring of the mountain goat core winter range unit referred to in a) and the adjacent 500 metres occurs during primary forest activities by the license holder or their appointed contractors to document winter range occupation or non-detection of mountain goat, and
 - e) the planned timing of works within the 500 metre specified area referred to in GWM 5 are provided to the Director of Resource Management (Omineca Region), two weeks prior to the commencement of primary forest activities associated with the works, and
 - f) all monitoring reports are submitted to Ministry of Forests, Lands and Natural Resource Operations, Director of Resource Management (Omineca Region) within three months of harvest completion date.
7. All roads or access structures within 500 metres of mountain goat core winter range must be decommissioned within three years following harvest completion date.

4. Natural Resource Impacts

a) Forestry:

The timber supply assessments summarised in Table 1 are based on the spatial overlap of the UWR units with the timber harvesting landbase (THLB) and associated management direction in the General Wildlife Measures – it is policy that the THLB amounts and resultant impacts of UWRs are calculated using numbers determined through Timber Supply Review #2 (TSR 2) for the Mackenzie TSA. The timber supply numbers are consistent with this policy direction.

Table 1: Mountain goat ungulate winter ranges in the Mackenzie Forest District: U-7-029, U-7-030

UWR #	UWR Name	Size (ha)	THLB overlap (ha)
U-7-029	Mountain Goat – Ospika, Osilinka and Akie-Pesika populations	Core winter range (49,418)	2,739
U-7-030	Mountain goat – Mackenzie Forest District	Core winter range (57,786)	2,893

These UWRs are approved as Type 2 UWR plans, consistent with Land Use Planning direction (compared with a Type 1 plan based on Environmental Sensitive Area net downs or a Type 3 plan based on no previously-established timber supply net down). There is no pre-defined Type 2 amount in the Mackenzie Forest District. The Mackenzie LRMP included no legal objectives or THLB amounts for protection of mountain goat. U-7-029 and U-7-030 reflect the spirit and intent of the Mackenzie LRMP, consistent with a Type 2 proposal. TSR 2 amounts were originally provided for policy purposes and it was never assumed that the associated THLB numbers would provide an absolute cap on further UWR designations.¹⁴

The UWR units established through U-7-029 encompass 49,418 hectares in the Mackenzie Natural Resource District, including an overlap of 2,739 hectares of Timber Harvesting Landbase (THLB) within the core UWR units which are affected by restrictions to primary forest activities. UWR U-7-030 includes 57,786 hectares, and an overlap of 2,893 hectares of THLB.

The Mackenzie Timber Supply Review was undertaken in 2013-2014, with an Allowable Annual Cut decision made November 2014. Minimum harvest stand volume was set at 151m³/ha for conventional harvest operations. Stands on slopes greater than 46% were considered inoperable if volumes did not exceed 250m³/ha.¹⁵ Further analysis in support of this UWR decision was undertaken by Forest Analysis and Inventory Branch during that time. The core UWR overlap of either 2,739 hectares (U-7-029) or 2,893 hectares (U-7-030) of THLB include predominantly high elevation forest, much of which is comprised of balsam-leading stands. THLB impacts associated with these UWRs are minor, in that the average volume per hectare above 1200 metres in elevation in the Mackenzie TSA is 83m³/ha¹⁶ (and not

¹⁴ Hal MacLean, Forest Analysis and Inventory Branch, personal communication

¹⁵ Barry Snowdon, senior analyst, Forest Analysis and Inventory Branch. Personal communication.

¹⁶ Barry Snowdon, senior analyst, Forest Analysis and Inventory Branch. Personal communication.

contributing to the allowable annual cut), with the core high elevation UWR units (with the exception of 12 units within U-7-029 comprising significant mineral licks and trails receiving late winter use) all above 1200 metres in elevation. Fifty-two percent of stands above 1200 metres are balsam-leading. These high elevation stands are also expected to contribute significantly to legal aspatial old forest requirements.

b) Range:

There are no specific *Range Act* GWMs included in either of these UWRs. However, U-7-028, a Stone's sheep UWR approved at the same time and in the same general area, includes a specific GWM (GWM 8) that restricts the use of domestic sheep, goats, llamas and alpacas within the UWR and restricts the use of mineral supplements such as salt blocks that may have been exposed to a domestic sheep, goat, llama or alpaca. GWM 8 within U-7-028 will serve to additionally limit the exposure of domestic sheep and goats to wild mountain goat populations, thereby addressing a measure of disease risk to mountain goats as well as Stone's sheep.

c) Mineral Interests:

Mineral tenure holders requiring an Occupant License to Cut, Free Use Permit greater than 50m³, or Special Use Permit must be consistent with *Forest and Range Practices Act* Ungulate Winter Range GWMs. Both U-7-029 and U-7-030 were amended following a meeting with Ministry of Energy and Mines staff with the addition of GWM 3 to include specific exemptions to some mineral exploration activity under certain conditions (designed to minimize impacts to mountain goat populations and habitat). GWM 5 outlines timing windows immediately adjacent to the core UWR units, and GWM 6 provides exemptions to this timing based on specific conditions. With the inclusion of GWM 3 and GWM 6, these Orders are now consistent with respect to mineral tenure exemptions provided within other UWRs, exploration road widths are consistent with guidance found within the *Handbook for Coal and Mineral Exploration in BC*,¹⁷ and the timing window of operations is consistent with the provincial mountain goat management plan,¹⁸ as well as the *Compendium of Wildlife Guidelines for Industrial Development Projects in the North Area, British Columbia*.¹⁹ With the inclusion of GWM 3 and GWM 6, there are no unresolved concerns identified by any mineral tenure holders. Effective implementation of the UWRs would benefit from the development of a specific mineral tenure guidance document.

d) Oil and Gas:

There are no agreement holders under the *Petroleum and Natural Gas Act*. There are no unresolved concerns identified by the organizations representing oil and gas industrial sectors. The UWR core units intersect with no proposed pipeline routes. Only the core unit boundaries are applicable to Oil and Gas Activities and there are no associated general wildlife measures for activities under the *Oil and Gas Activities Act* (OGAA).

Although the Oil and Gas Commission (OGC) may permit activities within these designations, they must meet the test of causing no material adverse impact to northern caribou within the boundaries. The OGC may therefore put specific conditions on those permitted activities to achieve Government's Environmental Objectives under *OGAA*

¹⁷ Ministry of Energy, Mines and Petroleum Resources. 2009. Handbook for Coal and Mineral Exploration in BC. www2.gov.bc.ca/assets/gov/business/natural-resource-industries/mineral-exploration-and-mining/handbookformineralexploration0809.pdf

¹⁸ Mountain Goat Management Team. 2010. Management plan for the mountain goat (*Oreamnos americanus*) in British Columbia. Ministry of Environment. Victoria BC.

¹⁹ Ministry of Forests, Lands and Natural Resource Operations. 2014. A Compendium of Wildlife Guidelines for Industrial Development Projects in the North Area, British Columbia. Interim Guidance. <http://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?subdocumentId=9921>

e) Lands:

There are no *Lands Act* impacts.

5. Review and Comment / Consultation Summary

Due Diligence has been met regarding review and comment/consultation obligations for these two UWR proposals under the:

Forest and Range Practices Act (FRPA), and the
Oil and Gas Activities Act (OGAA).

a) Forest Act Agreement holders:

Upon initiation of the review and comment period, in addition to phone calls and email communication, face-to-face meetings were held with eight forest licensees in Prince George, Mackenzie and Fort St. James. Subsequent questions and feedback was summarised in a document which was then provided to all forest licensees. No comments were received from either the First Nation woodlot holder or one First Nations forest licensee. Two extensions to the timeline for review and comment were given to all affected tenure holders. Forest licence agreement holders had at least 5.5 months for review and comment. An additional meeting was held in Fort St. James with one forest licensee and senior Landbase Stewardship staff. Additional clarification and analysis information was provided by the timber supply analyst, as the Mackenzie Timber Supply Review was underway at the same time. This additional analysis work was shared with forest licensees.

Of the three *Forest Act* agreement holders who provided comments specific to these Orders, one forest licensee indicated this proposal would cause an undue constraint on their ability to exercise their rights under their *Forest Act* agreement, as they felt the timber supply impact estimates were underestimated, constraining, and warranted further work. This concern included isolation of timber and the need for a potentially onerous exemption process. Another forest licensee indicated that approval of U-7-029 and U-7-030 could potentially affect their rights through a loss of access to high elevation forest, although they acknowledged this concern was more applicable to the northern caribou Order (U-7-025, also undergoing review and comment at the same time) than these particular Orders.

Further timber supply analysis work was undertaken in conjunction with the Mackenzie Timber Supply Review. It was determined that the average stand volume above 1200 metres in elevation in the Mackenzie TSA is $83\text{m}^3/\text{ha}^{20}$, and the core high elevation UWR units are all above 1200 metres in elevation with the exception of 12 units within U-7-029 comprising significant mineral licks and trails that receive late winter use. The timber supply assessment was redone by the Forest Analysis and Inventory Branch and original timber supply impact numbers were reconfirmed as correct. Exemptions for forest development activities may be applied for to access potentially isolated timber, and mitigative measures developed. Given average high elevation stand volumes, the need for exemptions is not expected to be onerous.

Additional communication through letters, emails, phone calls and meetings was undertaken to address concerns, and GWMs were amended as appropriate. GWM 5 speaks to timing of primary forest activities within 500 metres of core winter range units, and GWM 6 was developed to specify exemption conditions for GWM 5 if it is determined by a qualified professional knowledgeable in mountain goat ecology that the specified area referred to in GWM 5 is not occupied by mountain goat. GWM 7 was

²⁰ Barry Snowdon, senior analyst, Forest Analysis and Inventory Branch. Personal communication.

amended to reflect a more accurate definition of the completion of harvest activities, provide consistency with respect to the distance from the core UWR unit, and to enable an extra year for forest licensees to complete initial silviculture activities and decommission roads and access structures. This was acceptable to the two forest licensees who had expressed concern regarding this GWM. Further exempting permanent access structures within 500 metres of the UWR is not consistent with the concept of the specified area need to address a specific risk to mountain goats. Forest licensees proposing new permanent access structures within the 500 metre specified area may apply for an exemption for which proactive, specific access mitigation measures can be developed.

Existing mainline roads are exempt. However, a *Compendium of Wildlife Guidelines for Industrial Operation Projects in the North Area, British Columbia* is available and represents best management practices for activities within and adjacent to sensitive ungulate populations.²¹ As part of best practice, assessment of the risk to mountain goat associated with the management of roads is recommended.

A forest licensee felt that restricting timing of operations within the 500 metre specified area may restrict road use and maintenance to access timber beyond. If road use and maintenance needs to occur outside timing windows associated with new road development within 500 metres of the core UWR then specific exemptions could be applied for and mitigative measures developed. Given the stand volume limitations at these higher elevations, exemption requests at these elevations are likely to occur but should not be common. The measure is designed to address the specific sensitivity of mountain goats to disturbance, and exempting permanent access structures would not be consistent with this management goal.

b) Range Act agreement holders:

While there are no specific Range Act GWMs within these UWRs, one Range Act tenure holder did email FLNRO staff to express concern regarding the risk to mountain goat through climate change. This concern was further discussed through a phone conversation. One other Range Act tenure holder phoned regarding clarification with respect to another proposed UWR, and did indicate support for U-7-029 and -030. Of the 15 *Range Act* agreement holders, four responded and none indicated any undue constraint to exercise their rights with the establishment of the UWRs through this Order. Two tenure holders indicated support for these UWRs.

c) Oil and Gas Activities Act:

There are no agreement holders under the *Petroleum and Natural Gas Act*. A request for review and comment was sent to four organizations representing oil and gas industrial sectors, and well as the Oil and Gas Commission. A second request was forwarded to the organisations representing oil and gas industrial sectors, and responses were received from two. There are no unresolved concerns identified by the organizations representing oil and gas industrial sectors or the Oil and Gas Commission.

d) Mineral tenure holders:

Mineral tenure holders requiring an Occupant License to Cut, Free Use Permit greater than 50m³, or Special Use Permit must be consistent with *Forest and Range Practices Act* Ungulate Winter Range GWMs. Fifty-nine mineral tenure holders were contacted and communication undertaken through email and phone calls with 15 respondents, including the Association for Mineral Exploration BC (AME BC). Three mineral tenure holders expressed concern about the possible restrictions on exploration activities within their tenure, as well as concern with respect to possible restrictions within the specified

²¹ Ministry of Forests, Lands and Natural Resource Operations. 2014. A Compendium of Wildlife Guidelines for Industrial Development Projects in the North Area, British Columbia. Interim Guidance.
<http://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?subdocumentId=9921>

area. Eleven tenure holders either wanted to know which UWR proposal overlapped their tenure, or what the UWR designation would mean to their operations. Clarification was provided. AME BC requested to be included as a stakeholder and information was provided to them. Further discussion occurred between the AME BC representative and Ministry of Energy and Mines (MEM) senior staff. FLNRO staff assisted with the response. One mineral tenure holder opposed the UWR proposal.

MEM staff expressed concern about the extent of potential restrictions on mineral exploration activities within the UWRs. A meeting was held in Prince George with MEM staff, and the Order was amended with the addition of GWM 3 to include specific exemptions to some mineral exploration activity under certain conditions (designed to minimize impacts to mountain goat populations and habitat). This Order is now consistent with respect to mineral tenure exemptions provided within other UWRs in the Omineca, Thompson Okanagan and Cariboo Regions, the *Handbook for Mineral and Coal Exploration in British Columbia*, and *A Compendium of Wildlife Guidelines for Industrial Development Projects in the North Area, British Columbia*.²²

e) Lands Act:

The Lands officer did not express any specific objections to this UWR.

f) First Nations:

• **Tsay Keh Dene:**

Extensive discussions with Tsay Keh Dene were held with respect to this and other UWR proposals within their traditional territory. Face-to-face meetings were held in Fort St. James, Prince George, and Tsay Keh Dene. MFLNRO staff went to Tsay Keh and participated in a two-day open house for community members. Information on the UWR proposal was shared and comments recorded. These UWRs are supported by Tsay Keh Dene.

• **Takla Lake First Nation:**

Consultation efforts consisted of phone calls, emails, and a face-to-face meeting in Prince George. The UWR proposal was presented to the Chief, who expressed interest, including the desire for MFLNRO attendance at an open house in Takla Landing. While this open house did not occur, further communication with Takla Lake First Nation natural resource staff did occur, and a letter of support from Chief and Council was provided.

• **Kaska Dena Council:**

FLNRO staff presented this and other UWR proposals at a Kaska Dena meeting, and the FLNRO First Nations advisor continued discussion at another meeting in Kwadacha. Kaska indicated they would not be providing comments but the project was OK to proceed.

• **McLeod Lake Indian Band:**

The Mackenzie First Nations relations advisor engaged with the McLeod Lake Indian Band and while discussions were initiated, no subsequent follow-up meeting occurred and no response was received. Additional engagement was undertaken by FLNRO staff through two meetings in February and March 2016 to further discuss and review the proposed UWR. Interest and verbal support from Chief and Council was received, particularly with respect to disease risk management to wild goats and sheep within their territory.

²² Ministry of Forests, Lands and Natural Resource Operations. 2014. *A Compendium of Wildlife Guidelines for Industrial Development Projects in the North Area, British Columbia*. Interim Guidance.
<http://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?subdocumentId=9921>

- **Halfway River, West Moberly and Salteau First Nations:**

The Mackenzie First Nations relations advisor engaged with all other First Nations with traditional territory overlapping the UWR proposal (Halfway River, West Moberly, Saulteau) and no response was received.

- **Tahltan and Gitxsan First Nations:**

While there is limited overlap with the traditional territories of these two First Nations, the decision was made not to consult. This was chosen due to the nature of this proposed UWR, the location of the UWR units in relation to Gitxsan and Tahltan traditional territories, and fact that these UWRs are likely to enhance and protect ungulate habitat; further enabling First Nations to exercise their constitutional rights to hunt.

g) Muskwa-Kechika Management Board:

Communication was initiated between MFLNRO and the Muskwa-Kechika Management Board, as portions of U-7-028 lie within the Muskwa-Kechika Management Area. While the Board did not participate in a detailed review of the proposal, they did indicate they support (in principle) the establishment of Ungulate Winter Ranges within the Muskwa-Kechika Management Area for the long term sustainability of wildlife populations. They also stressed the need for the Province to take adequate time for consultation with First Nations that are affected by these proposals, along with support for the opportunity for stakeholder and industry engagement on these proposals before a decision is reached. Finally, they requested inclusion of the decision in the annual report by the Province to the Advisory Board.

With respect to all affected tenure holders, a second request for review and comment was forwarded to those who did not respond to the initial referral. Table 2 identifies those stakeholders contacted, with a summary statement of their positions.

Table 2. Stakeholders contacted, a summary statement, and identification of outstanding concerns.

Stakeholder	Summary Statement
Directly Affected <i>Forest Act</i> Agreement Holders:	
Canadian Forest Products Ltd. (Canfor)	No outstanding concerns ²³
Conifex Inc.	No outstanding concerns
Three Feathers Ltd. Partnership	No outstanding concerns
Kwadacha Natural Resource Agency Ltd.	No response ²⁴
Mackenzie Fibre Ltd.	No outstanding concerns
BC Timber Sales	No outstanding concerns
Tsay Keh A62375	No outstanding concerns
Woodlot 1573	No response
Not Directly Affected <i>Forest Act</i> Agreement Holders:	

²³ No outstanding concerns - Concerns raised by the stakeholder were resolved through consultation.

²⁴ No response - No direct communication with/from the stakeholder (e.g., return call/email/fax). This includes leaving a message with someone other than the contact person.

Muskwa-Kechika Management Board	No comment ²⁵
Affected <i>Range Act</i> Agreement Holders:	
Wicked River Outfitters	No response
Bear Paw Guide and Outfitters	No response
Besa River Outfitters	No comments received ²⁶
Tsay Keh Dene Outfitters	Supports the UWR ²⁷
Folding Mountain Outfitters	No response
Gundahoo River Outfitters	No response
Finlay River Outfitters	Supports the UWR
Pelly Lake Wilderness Outfitters	No response
Prophet Muskwa Enterprises Ltd.	No comments received
Richard Solomanson	No response
Moose Valley Outfitters	No response
Scoop Lake Outfitters (1997) Ltd.	No response
Sikanni River Outfitting (1998) Inc.	No response
Tuchodi River Outfitters Ltd.	No response
Directly affected <i>Petroleum and Natural Gas Act</i> Agreement Holders	
None	N/A
Not directly affected stakeholders under the <i>Petroleum and Natural Gas Act</i>	
Canadian Association of Geophysical Contractors	No comment
Canadian Association of Petroleum Producers	No response
Canadian Energy Pipeline Association	No response
Explorers and Producers Association of Canada	No comment, but wanted to ensure we had sent the referral to CAPP
Lisa Helmer, BC Oil and Gas Commission	No concerns - Commission has reviewed Orders and maps and is satisfied the units will fit within the existing regulatory framework under <i>OGAA</i> . Commission is aware of the draft polygons and proposed LNG pipeline within some proposed UWR Units.
Affected IPPs, Mineral Interests, & Other Occupiers of Land:	
Mineral Interests (59 contacted)	
John Chrisostom Bot	No comments received
John Bernard Kreft	No response

²⁵ No comment - Contact person explicitly stated that they will not provide comments

²⁶ No comments received - Contact made by phone or in person. Or email/voicemail/fax from stakeholder acknowledging receipt of consultation package and/or follow-up calls, but no comments specific to the UWR proposal were received

²⁷ Supports the UWR - Contact person stated that they support the proposal

Rara Terra Capital Corp.	No response
American Manganese Inc.	No response
Speebo Inc.	No response
Robert A. Lane	No response
CJL Enterprises Inc.	No response
Brian William Scott	No comments received
Dorian Leslie	No response
Serengeti Resources Inc.	No response
Hard Creek Nickel Corporation	No response
Rimfire Minerals Corporation	No concerns ²⁸ (Kiska Metals)
Mardell Martindale	No response
Commander Resources Ltd.	No response
John Robert Grabavac	No outstanding concerns
Canada Zinc Metals Corp.	No outstanding concerns
Lorraine Copper Corp.	No response
Howard Peter Yearwood	No response
North American Stone Inc.	No outstanding concerns
Ecstall Mining Corporation	No outstanding concerns
Teck Resources Ltd.	No comments received
Christopher O. Nass	No comments received
Canasil Resource Inc.	No response
International Samuel Exploration Corp.	No response
Arthur Derry Halleran	No response
Ursula Grace Mowat	No outstanding concerns
Timothy Arthur Johnson	No response
Peter Michael Burjoski	No response
West Cirque Resources Ltd.	No comments received
Ralph Raymond Keefe	No response. Delivery failed, no other contact info.
Kelly Brent Funk	No response
Aurico Gold Inc.	No response
Bolero Resources Corp. (Canada Carbon Inc.)	No response
Cazador Resource Inc.	Opposes the UWR proposal. Engagement with Association for Mineral Exploration BC (AME BC) undertaken as follow-up to concerns.
Logan Miller-Tait	No response
Cirque Operating Corp.	No response
Megastar Development Corp.	No response
Donald Keith Bragg	No response
Rudolph Mateo Durfeld	No response
Peter Edward Fox	No response
Gold Fields Canada Exploration Holdings Inc.	No response
Charles Edward Nunley	No response

²⁸ No concerns - Contact person stated that they have no concerns

Asiabase metals Inc.	No response
Jeffery David Rowe	No response
James Hitchie	No response
John Charles Stojan	No response
David Pugh	No response
Charles James Greig	No response
Teck Mining Worldwide Holdings Ltd.	No comments received
Steven Jeffery Scott	No response
Robert Gordon Dyck	No response
Selkirk Metals Corp.	No response
Spanish Mountain Gold Ltd.	No response
Quinn Patrick Harper	No response
Cole Alexander Godfrey	No response. Delivery failed, no other contact info.
Redton Resources Inc.	No concerns
Lorne Brian Warren	No response
Gary Clarence Lee	No response
Patricia Lynn Grexton	No response
AME BC	No outstanding concerns
First Nations:	
Takla Lake First Nation	Supports the UWR
Nak'azdli First Nation	No comments received
Kaska Dena Council	No comments received
Tsay Keh Dene First Nation	Supports the UWR
McLeod Lake Indian Band	Supports the UWR
West Moberly First Nations	No comments received
Halfway River First Nation	No response
Saulteau First Nations	No response
Gitksan First Nation	No response
Tahltan First Nation	No response
Others:	
Ministry of Energy and Mines	No outstanding concerns
Ryan Hall, FLNRO Lands Officer	Supports the UWR
Tom Peterson, Recreation Officer	No response
Jim Ladds, Regional Manager, Recreation	No concerns
Heather MacRae, FLNRO, Adventure Tourism Manager	No outstanding concerns
Cindy Haddow, Provincial Range Specialist	Supports the UWR
Bill Jex, Wildlife Biologist, Skeena Region	Supports the UWR
Helen Schwantje, Provincial Wildlife Veterinarian	Supports the UWR
Scott McNay, Wildlife Ecologist, Wildlife Infometrics	No comments received
Dale Seip, FLNRO Wildlife Ecologist	No comment received

Dan Buillion, Peace Williston Fish and Wildlife Compensation Program	No response
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6. Section 7 Notices


Mountain goat was not included in the Notice given under Section 7(2) of the *Forest Planning and Practices Regulation* (FPPR) and Section 9(3) of the *Woodlot Licence Planning and Practices Regulation* (WLPPR) for the Mackenzie Natural Resource District.

7. Acknowledgements

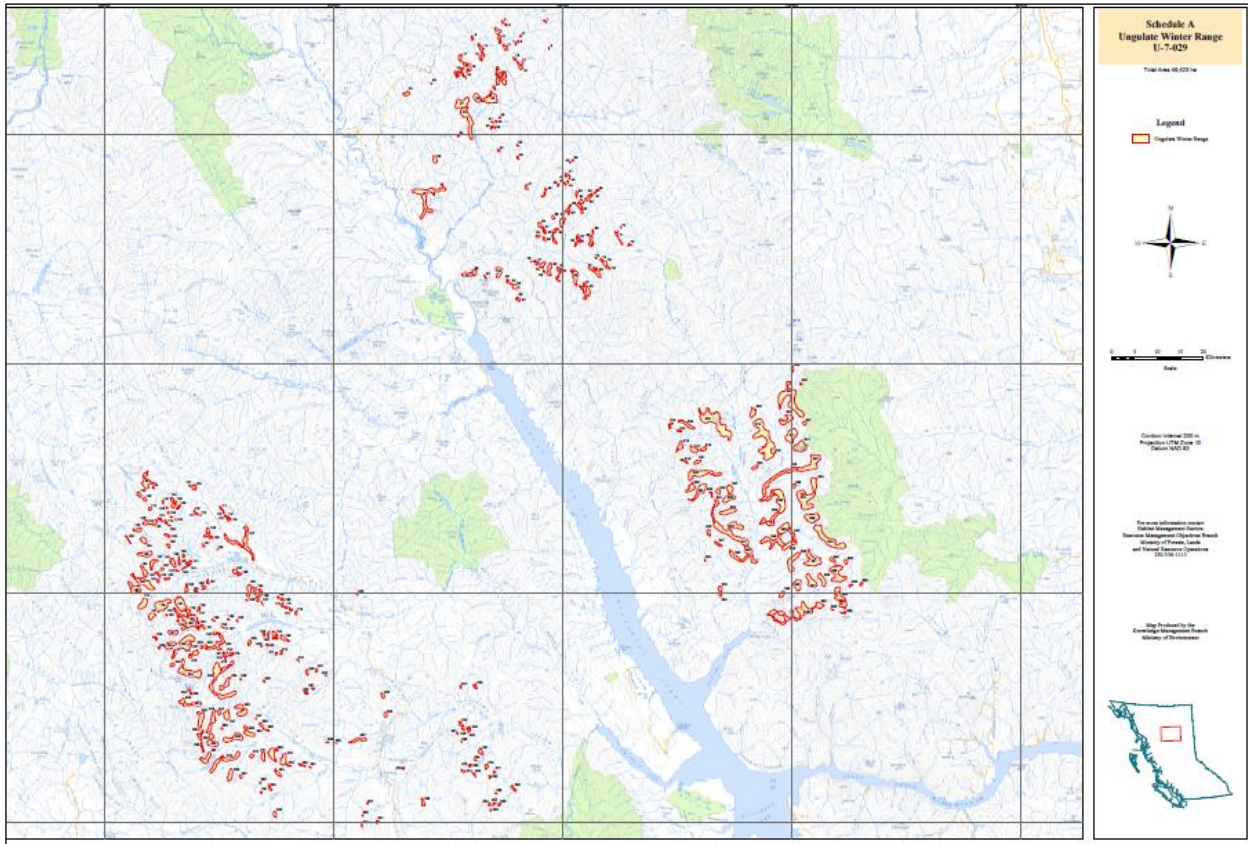
The development of U-7-029 and U-7-030 was a significant undertaking over a period of years, much of which would not have occurred without the support and competent involvement of Leslie McKinley and Bill Arthur. Special thanks to Scott McNay and staff of Wildlife Infometrics for their model development and support. Thanks also to Doug Heard, Bill Jex, Helen Schwantje, Luke Gleeson, Troy Larden, Chris Ritchie, Barry Snowdon, Cindy Haddow, Jen Psyllakis, Steve Gordon, Kevin Hoekstra, Darius Low, Neal Gooding, Ian Brown, Sam Davis, Carly Gilchrist, Louise Bett, Steve Rooke, Stacy Perkins, Karen Tabe, Dave Radies, Doug Wilson, Norm Bilodeau and Brady Nelless for their support and involvement along the way. Thank you to the numerous stakeholders who provided review and input into the development of these UWRs. Finally, special thanks to James Jacklin for expert input and editorial skills.

8. FLNRO Professional Biologist Endorsement

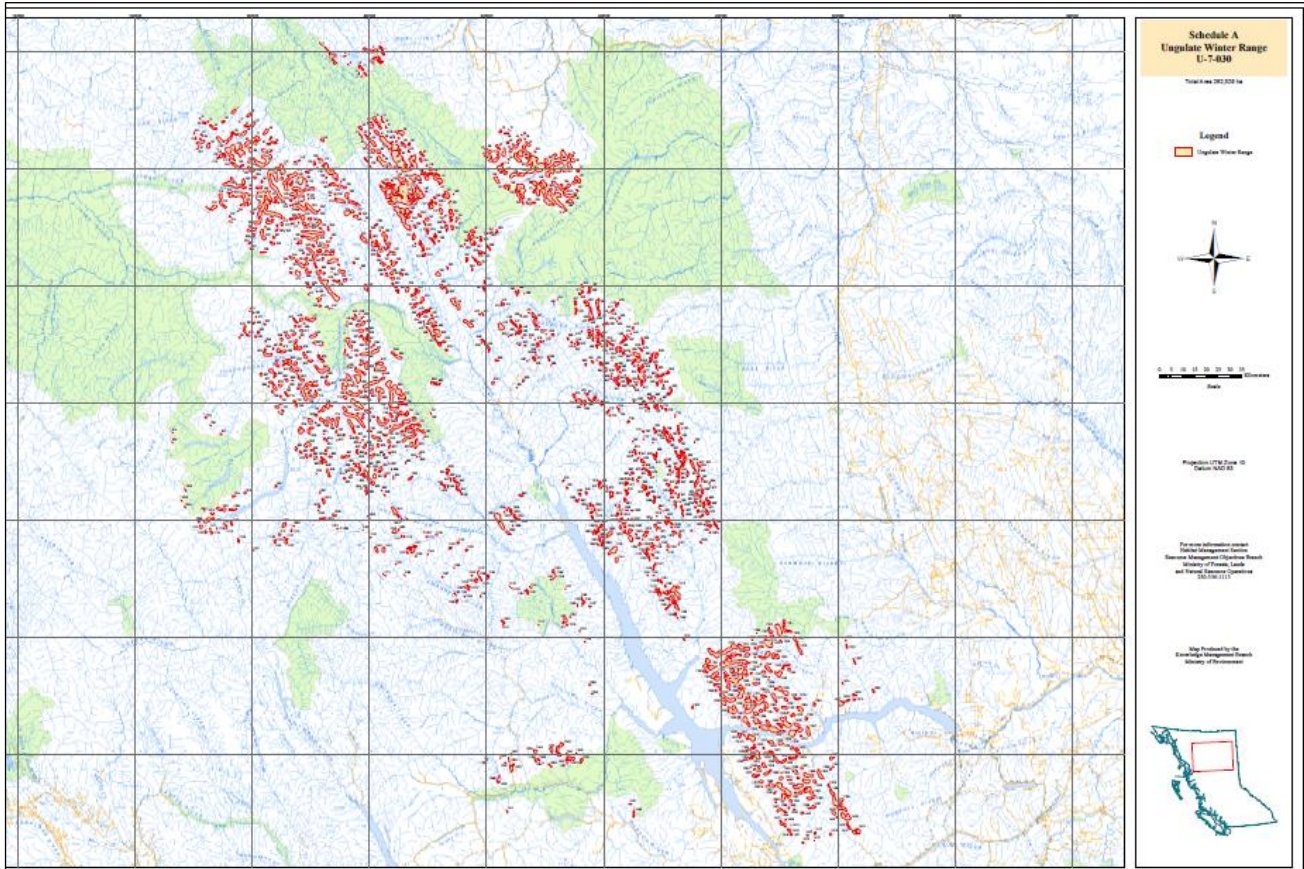
UWRs U-7-029 and U-7-030 meet the tests under the Government Actions Regulation under *FRPA* and the Environmental Protection and Management Regulation under *OGAA* and the designations are necessary to protect and conserve and meet the winter habitat requirements for mountain goat in the Mackenzie Natural Resource District.

Name	Initials	Date
Joanne M. Vinnedge, MSc., RPBio Ecosystem Biologist, RPBio # 332		July 25, 2016

Appendix 1 – Maps of Mountain goat UWRs U-7-029 and U-7-030



Ungulate Winter Range U-7-029 - Mackenzie Natural Resource District.



Ungulate Winter Range U-7-030 - Mackenzie Natural Resource District.