



Oil and Gas Royalty Review Technical Briefing

May 2022



The Province will implement a new royalty framework for British Columbia:

- 2-year Transition Period

- New Wells

- Eliminate incentive programs for wells spud September 1 or later
 - Time-limited 5% rate on initial production

- Existing Wells

- Continue under current rules

- Revenue Minus Cost Framework

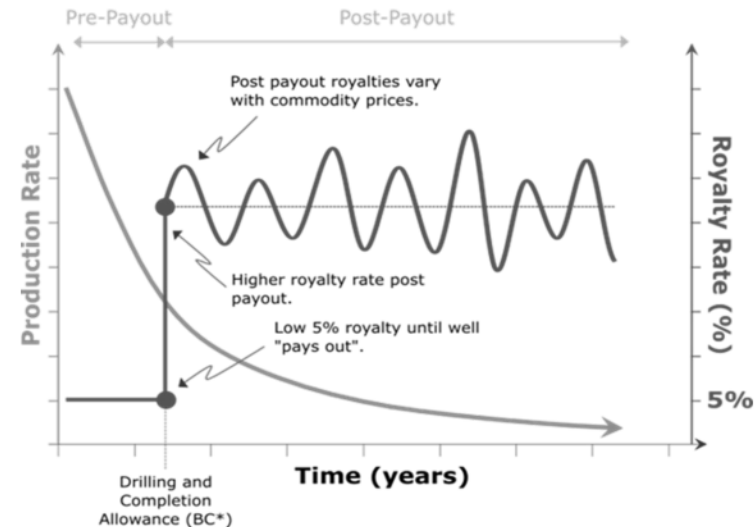
- Implementation September 1, 2024

Transition Overview



New Framework Overview

- Royalty rates based on profit
 - Pre-payout rate (5%) applies until revenue exceeds capital costs (drilling and completion) for drilling a well and putting it into production
 - Rates (between 5% and 40%) that are sensitive to resource prices apply after capital recovery, includes gathering and processing cost allowance in proportion to the royalty share
 - All costs information will be subject to audit
 - Crown share royalty valuation at the plant outlet – considerate of transportation deductions
- BC is targeting a return of half of profit over the life of the well





Capital Recovery Mechanism Concept - Drilling and Completion Allowance (BC*)

- BC* will have a specific value for each well tied as close to actual costs as possible.
- Producers will be required to submit cost data within 6-months of commencing production.
- Methodology will be aligned with existing taxation standard CRA – Canadian Development Expense comprised of actual costs and most expenditures below the surface that are not removable or transferable to another site – but tailored to fit with the BC context.
- Cost submissions will be subject to audit.
- Further work with Industry over coming months to develop detailed methodology and reporting standards.



Allowable Cost Concept – Gathering and Processing Allowance (GPA)

- Pre-payout: GPA does not apply.
- Post-payout: GPA applies subject to a minimum royalty rate of 5%.
- Accounts for operating costs and capital amortization costs for producer-owned infrastructure and equipment used to gather and process natural gas.
- Will account for third-party processing fees from non-producer owned plants in the royalty assessment process.
- Further work with Industry over coming months to develop detailed methodology.



Transition from Existing to New Royalty Framework – Existing Wells

- No changes for existing wells until September 1, 2024.
- Effective September 1, 2024:
 - Royalties shift from inlet to outlet;
 - Rates change from existing rate schedules (base 9, 12, etc.) to new price sensitive curves;
 - PCOS/GCA replaced by Gathering and Processing Allowance, and;
 - Rate reduction programs (Marginal, Ultramarginal, Low Productivity) end.



Transition from Existing to New Royalty Framework – Existing Wells

- Deep Wells:
 - Royalty rates and allowances shift to new system September 1, 2024;
 - Deep Wells continue to use deep deductions until depleted or until September 1, 2026, and;
 - Existing minimum rates (6% for Tier 1 and 3% for Tier 2) continue to apply for Deep Wells until September 1, 2026.
- Deep Well Deductions:
 - Eligible for transfer to Healing the Land and Emissions Reduction Pool beginning 2023, and;
 - Unused and un-transferred deductions expire September 1, 2026.



Healing the Land and Emissions Reduction Pool

- Producers will have the option to transfer unused deep well deductions to a Healing the Land and Emissions Reduction Pool before September 1, 2026
- Multiple “transfer windows” will be provided between early 2023 and September 1, 2026 to allow producers to allocate deep well deductions to the Healing the Land and Emissions Reduction Pool
- Producers will have the option to allocate some or all of the deep well deductions associated with a well to their Healing the Land and Emissions Reduction Pool.
- Once allocated to a producer’s Healing the Land and Emissions Reduction Pool, the royalty deductions will not be available to reduce royalties on the well they were originally associated with.



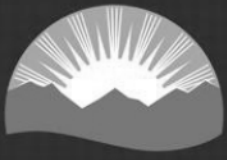
Healing the Land and Emissions Reduction Pool

- The Healing the Land and Emissions Reduction Pool is intended to support work going above and beyond regulatory requirements to reduce emissions or cumulative impacts on the land base.
- Final scope of activities to be supported through the Healing the Land and Emissions Reduction Pool will be developed in the coming months based on discussions within government, with Industry and with affected First Nations in the Northeast.
- The Ministry will conduct annual calls for projects (similar to CGIRP) from producers that wish claim deductions from the Healing the Land and Emissions Reduction Pool
- Producers will be able to reduce royalties equal to expenditures on projects approved through these annual calls – up to the value of deductions they have available in their Healing the Land and Emissions Reduction Pool and subject to overall annual program limits



Next Steps

- EMLI will be working with Industry and First Nations on implementation details
 - Healing the Land and Emissions Reduction Pool
 - Allowable Costs Methodologies
 - Valuation of natural gas, liquids and oil



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Boreal Caribou Protection & Recovery Plan Engagement

May 11 2022



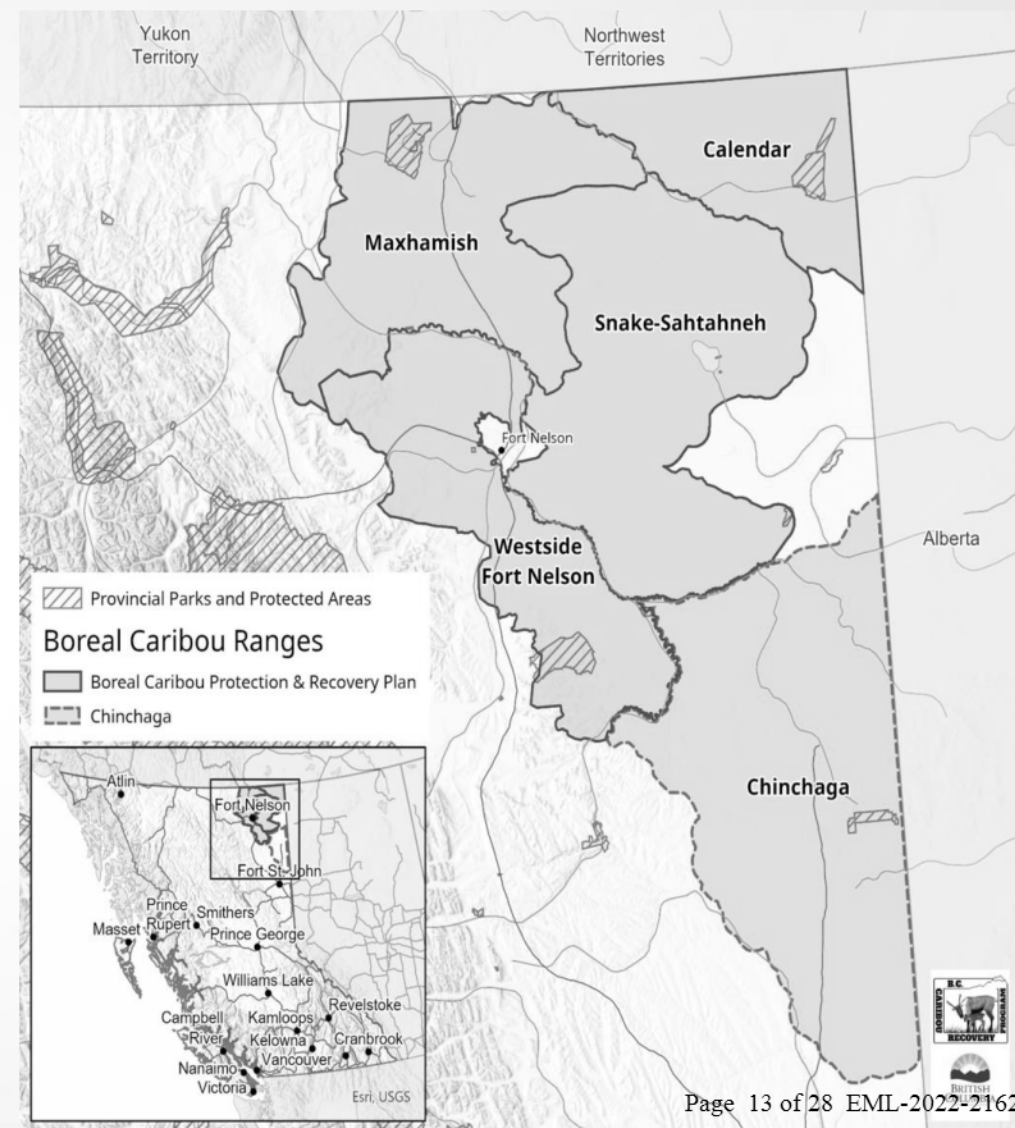
BC CARIBOU
RECOVERY PROGRAM



BCPRP Background

The ***Boreal Caribou Protection & Recovery Plan*** (BCPRP) has been developed in partnership with Fort Nelson First Nation and through collaboration with the Northern Rockies Regional Municipality.

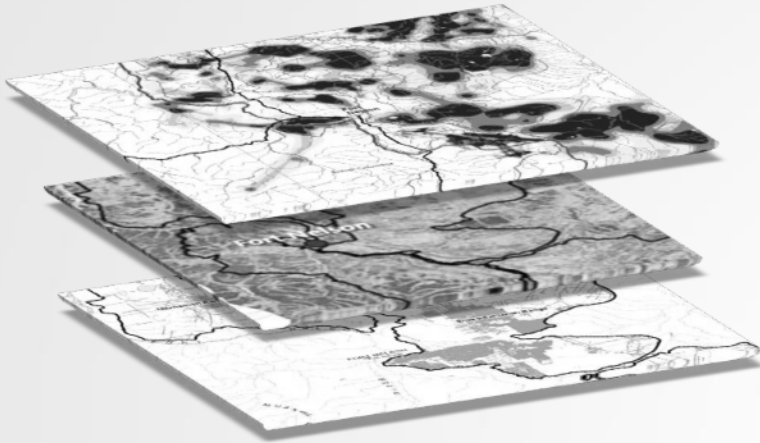
The BCPRP will replace the existing ***Implementation Plan for the Ongoing Management of Boreal Caribou (Rangifer tarandus caribou pop. 14) in British Columbia*** released in 2011, establishing new management goals, objectives and supporting management measures for four of the five boreal caribou ranges in B.C.





Recovery Planning

Delineate Core Habitat



Caribou Use:

- BC & Alberta Telemetry
- FNFN Local Observations & Indigenous Knowledge

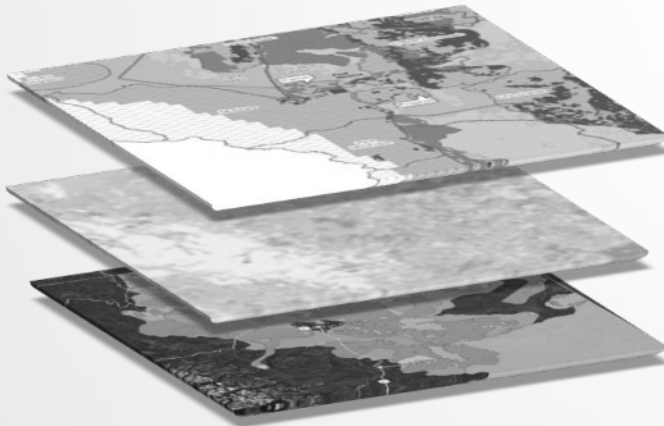
Habitat Suitability:

- Enhanced Wetland Data converted to Habitat Suitability

Disturbance:

- Regional Strategic Environmental Assessment Dataset
- Linear Features & Areal Disturbance

Develop &
Refine Management
Scenarios



Petroleum and Natural Gas:

- Conventional and Non Conventional Tenure & Activities

Forestry:

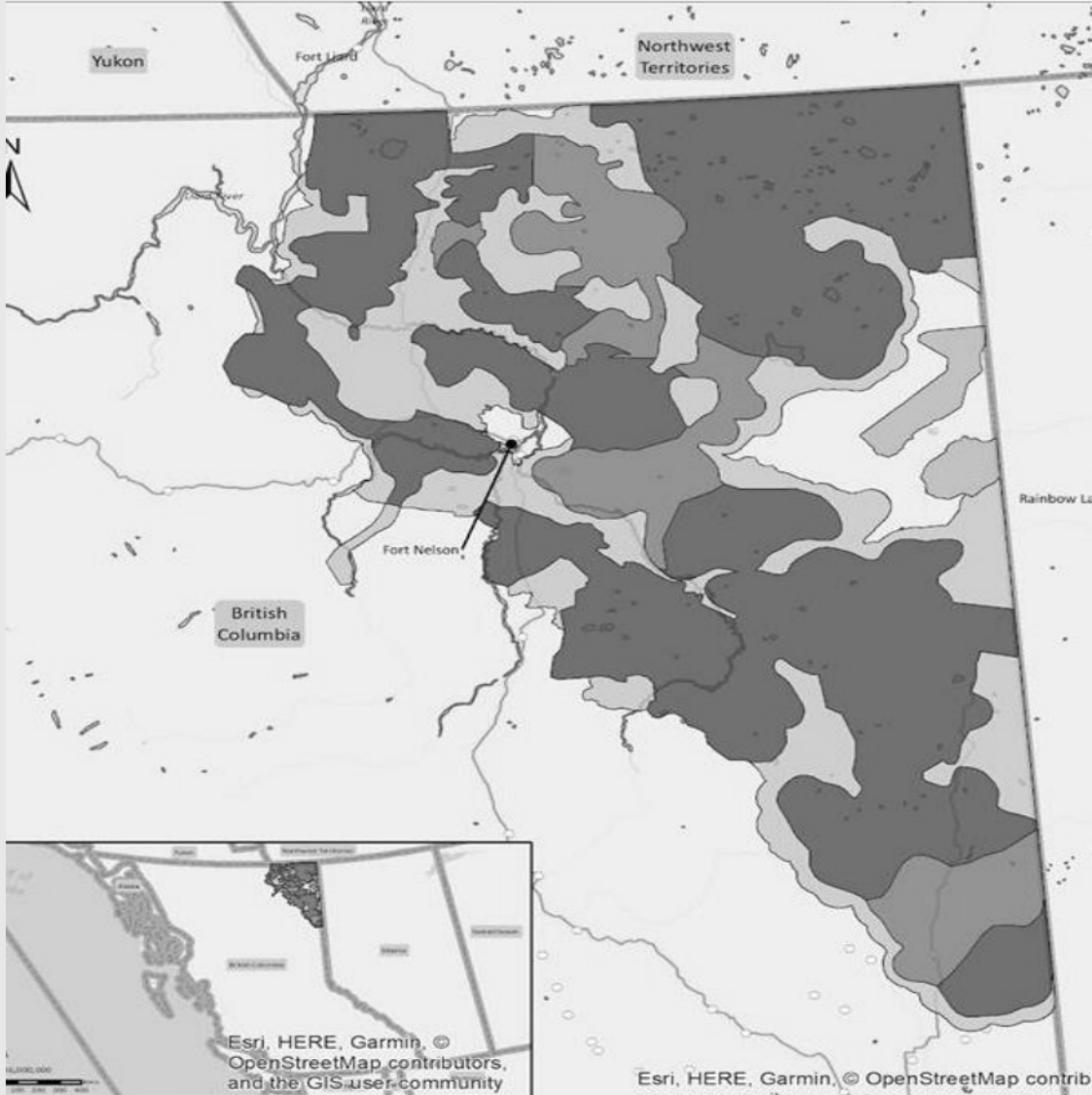
- Timber Harvesting Land Base
- Site Index Merchantability

Economic & Cultural Values Assessments

- Resource Forecasts, Impacts Analysis, FNFN Land Stewardship Framework



Technical Planning



Two core habitat zones (A+ B) were delineated based on biological & intactness criteria:

| Caribou Use | Intactness | | | | |
|----------------|------------|----|---|---|----|
| | VH | H | M | L | VL |
| Very High (VH) | 1 | 1 | 2 | 3 | 3 |
| High (H) | 1 | 1 | 2 | 3 | 3 |
| Medium (M) | 2 | 2 | 3 | 3 | 3 |
| Low (Low) | 6 | 6* | 4 | 4 | 4 |
| VL (Very Low) | 6* | 6* | 5 | 5 | 5 |



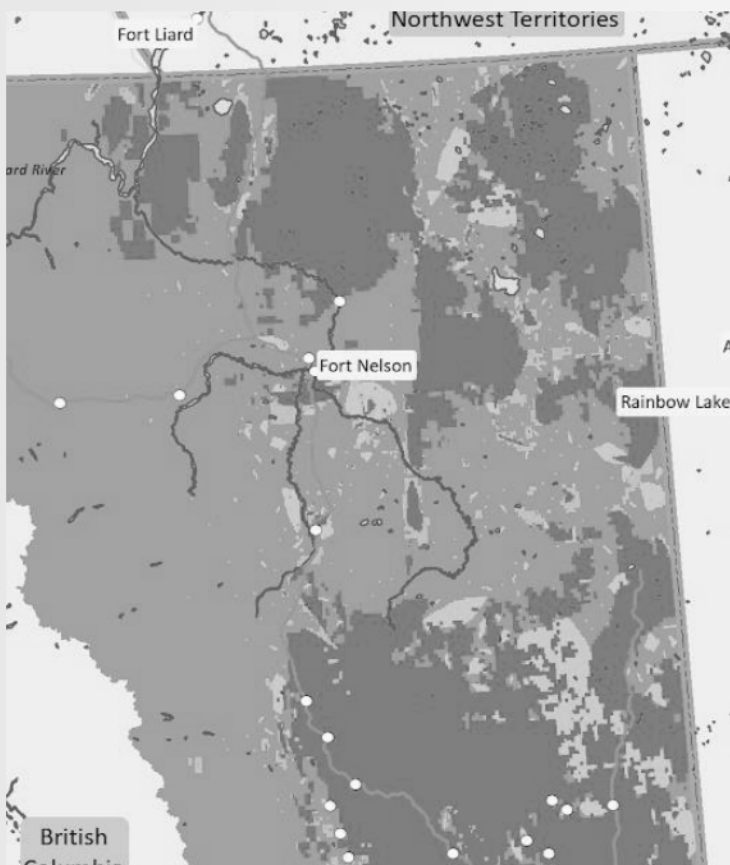
Scenario Development

Overarching goal: ***recover boreal caribou to self-sustaining populations across their range.***

| Scenario | Intent | Likelihood of Achieving Goal for Each Herd Range | | | |
|----------|---|--|-----------|-----------------|----------------------|
| | | Calendar | Maxhamish | Snake-Sahtahneh | Westside Fort Nelson |
| 1 | 65% undisturbed habitat target met or exceeded in all herd ranges | VH | H | H | H |
| 2 | 65% undisturbed habitat target met in all herd ranges. | VH | H | H | H |
| 3 | 65% average undisturbed habitat target across all herd ranges, with some ranges >65% undisturbed and others <65% undisturbed. | VH | M | H | M |
| 4 | <65% average across all herd ranges. Most herds <65% undisturbed. | VH | L | H | L |

Petroleum & Natural Gas Analysis

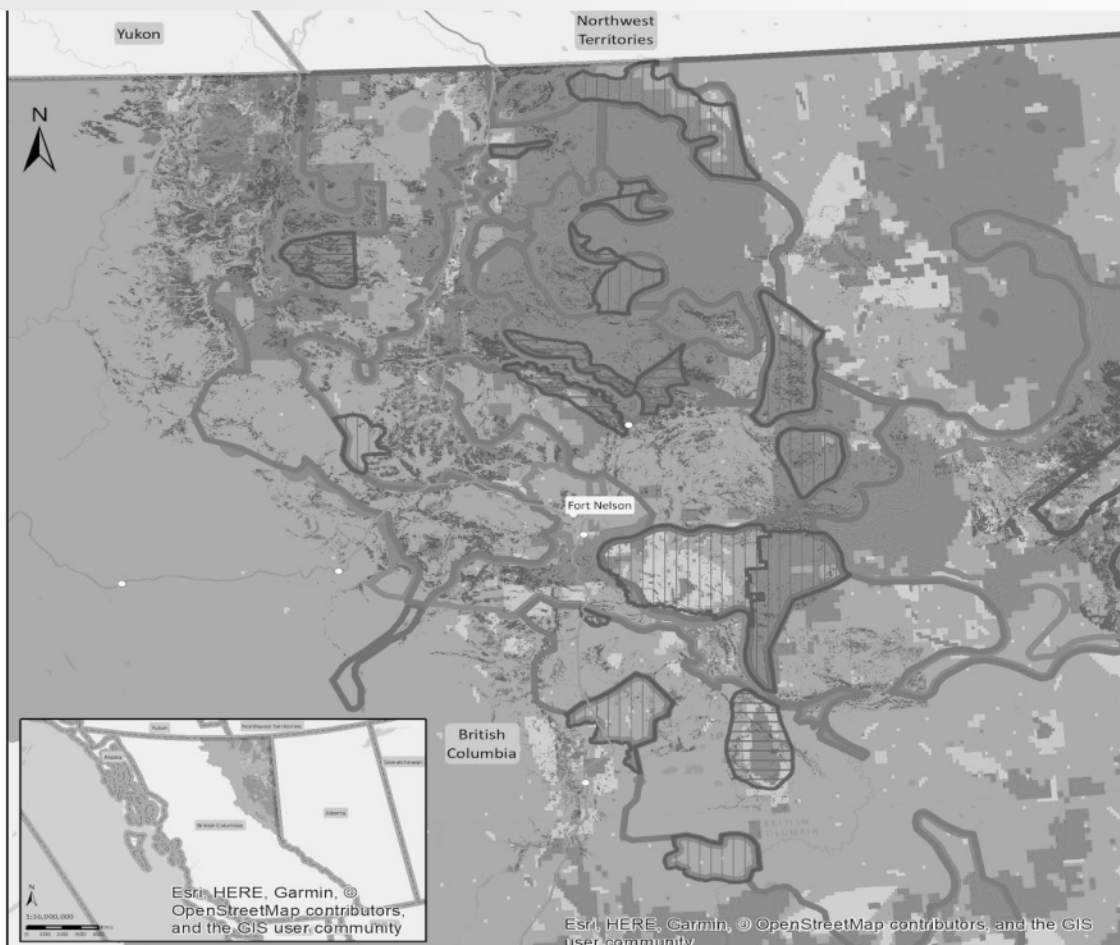
Worked with MEMPR & OGC to assess priority areas for conservation utilizing tenure type and activities status.



| | | | Tenure Type | | Well Status | | |
|--------------|------------------------|------------------------|--------------|----------------|-------------|--------|-----------|
| PNG Category | Probability Protection | Likelihood Development | Conventional | Unconventional | Abandoned | Active | Potential |
| 1 | High | Low | | | | | |
| 2 | High | Low | | | X | | |
| 3 | Medium | Medium | X | | X | | |
| 4 | Low | High | X | X | X | X | X |

Forestry Analysis

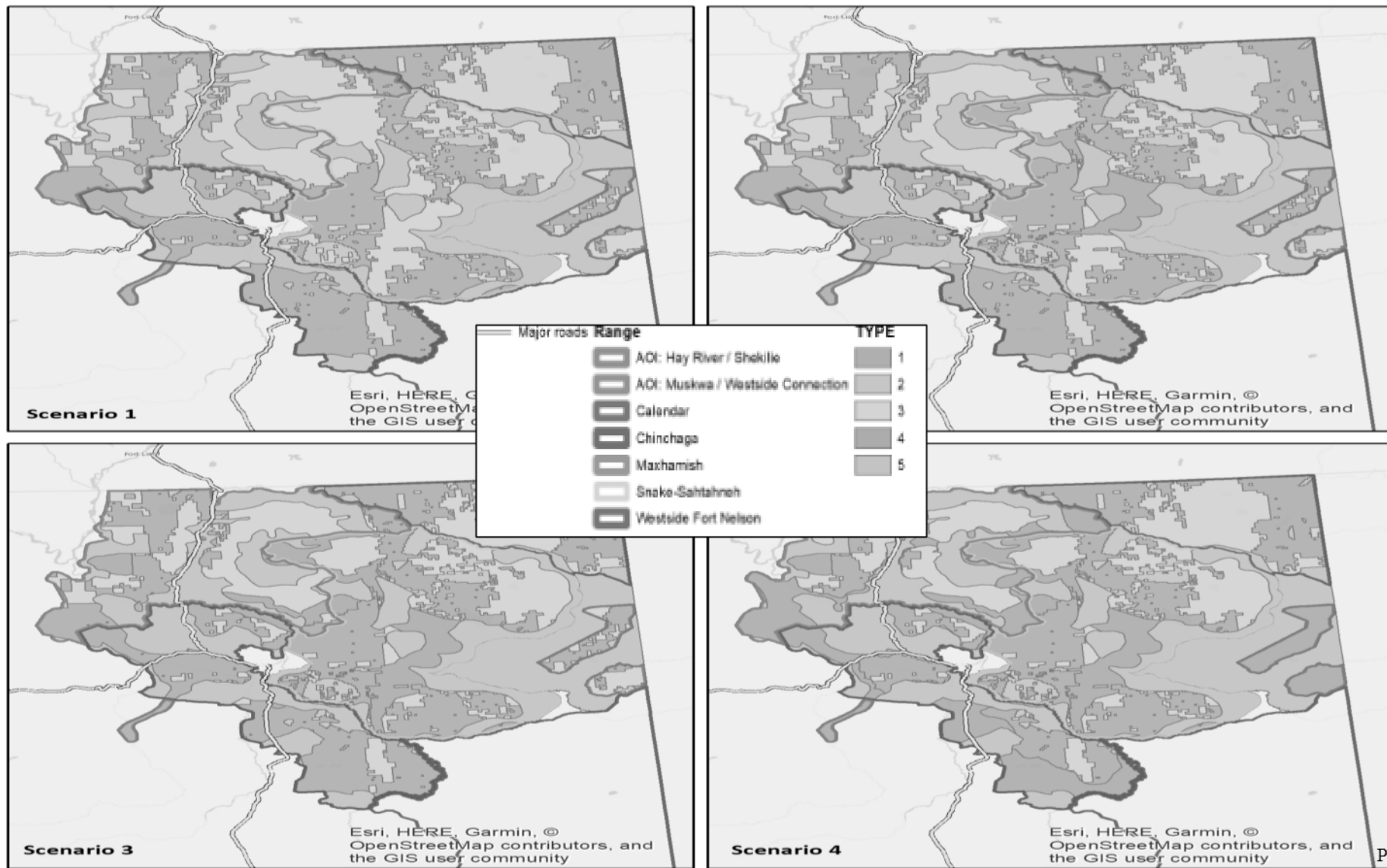
Categorized THLB by Merchantability and mapped “add” & “drop” polygons



| THLB | | | Probability Protection |
|---|-----------------------------|-----------------------------|------------------------|
| Non-Merch (SI < 10 or Visual Quality Objective = Retention) | Low-Volume Merch (SI 10-17) | High-Volume Merch (SI > 17) | |
| | | X | Low |
| | X | | Medium |
| X | | | High |



Scenario Comparison





Population Goals and Objectives

Management Goal:

- Recover boreal caribou populations across their range to self-sustaining status and to a level capable of supporting an Indigenous sustenance harvest.

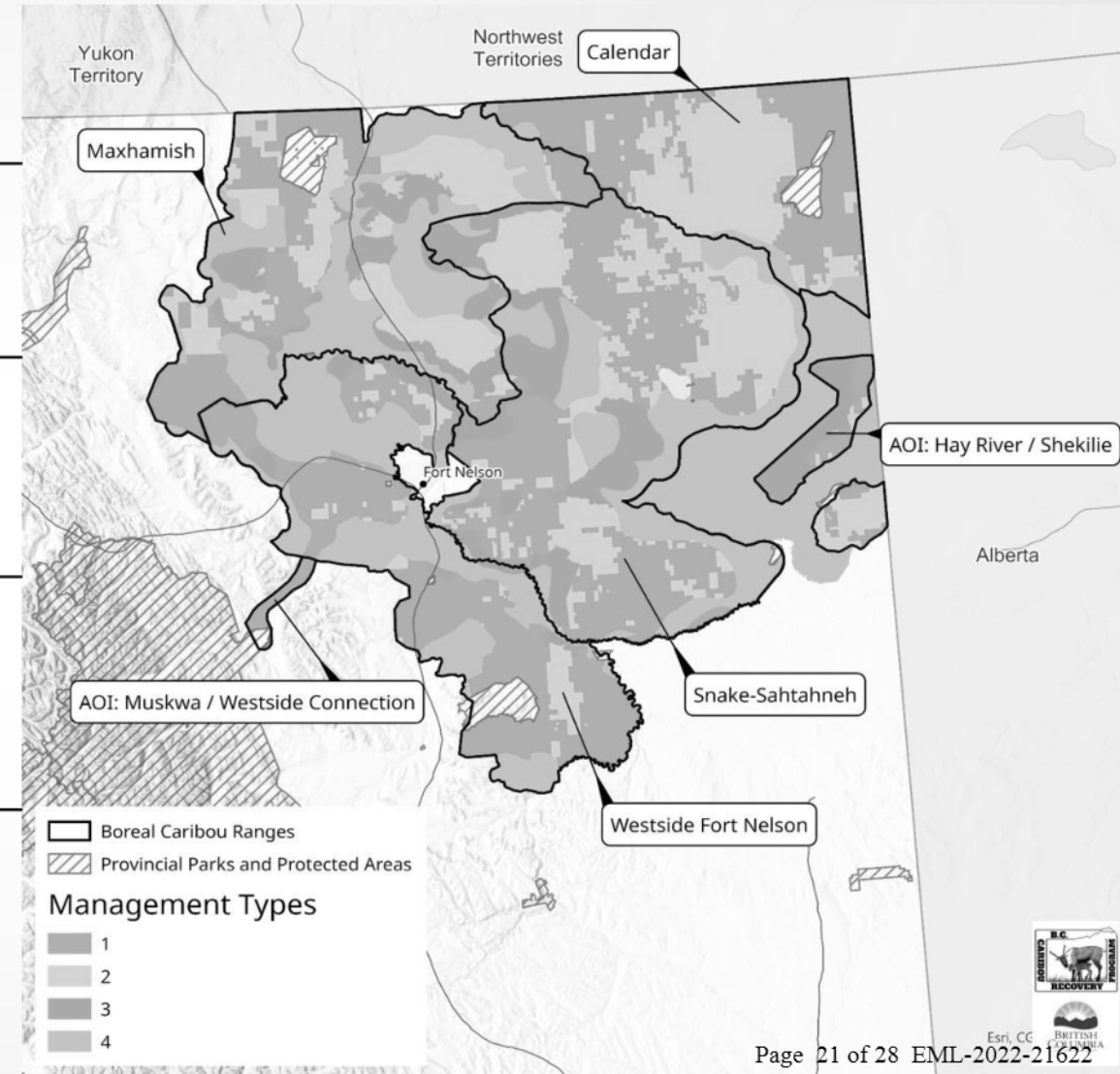
Supporting Management Objectives:

- Establish a positive habitat trend within core management zones by maintaining condition of the intact habitat and improving the condition of currently degraded habitat; and
- Stabilize and achieve a positive population trend across all ranges.



Habitat Management Overview

| Type | Management Intent | Management Measures |
|------|--|--|
| 1 | <ul style="list-style-type: none">• Full habitat protection across all industries• Top restoration priority | <ul style="list-style-type: none">• No new subsurface and surface tenure disposition• No new surface disturbance• Reclamation and restoration of legacy disturbance permitted through appropriate regulatory mechanisms |
| 2 | <ul style="list-style-type: none">• Full protection from forest harvest• Conditional petroleum and natural gas development• Secondary restoration priority | <ul style="list-style-type: none">• No new subsurface and surface tenure disposition• No new surface disturbance• Maintain access to petroleum and natural gas resources within existing industrial footprint |
| 3 | <ul style="list-style-type: none">• Conditional forest harvest• Conditional petroleum and natural gas• Lowest restoration priority | <ul style="list-style-type: none">• No new subsurface and surface tenure disposition• Petroleum and natural gas activities will be subject to updated Planning and Operational Measures• Forest harvest will be subject to updated General Wildlife Measures (GWMs). |
| 4 | <ul style="list-style-type: none">• Conditional forest harvest• Conditional petroleum and natural gas development | <ul style="list-style-type: none">• Petroleum and natural gas activities will be subject to updated Planning and Operational Measures• Forest harvest will be subject to GWMs. |





Wildlife Population Management

- Wolf predation is the leading documented cause of caribou mortality.
- The BCPRP proposes to develop a predator management program to manage wolf populations within caribou ranges where appropriate.
- Program envisioned to be developed and implemented in collaboration with First Nations and potentially other land-users (e.g., trappers, outfitters, etc).



Implications for Boreal Caribou

- Increases the total amount of area within caribou range managed for a positive habitat trend from 798,263 ha (21%) to 2,454,482 ha (63%).
- The plan provides a moderate-to-high likelihood of achieving caribou self-sustainability over the long term (40+years).
- Safeguards large contiguous areas for investment in habitat restoration and natural regeneration.
- Reduced predation risk and increased opportunities for population growth.



- Maintains conditional access to Petroleum and Natural Gas rights holders across caribou range.
- Restricts future tenuring within core habitat.
- Requires updated Planning and Operational Measures within caribou range to mitigate or offset future disturbance.



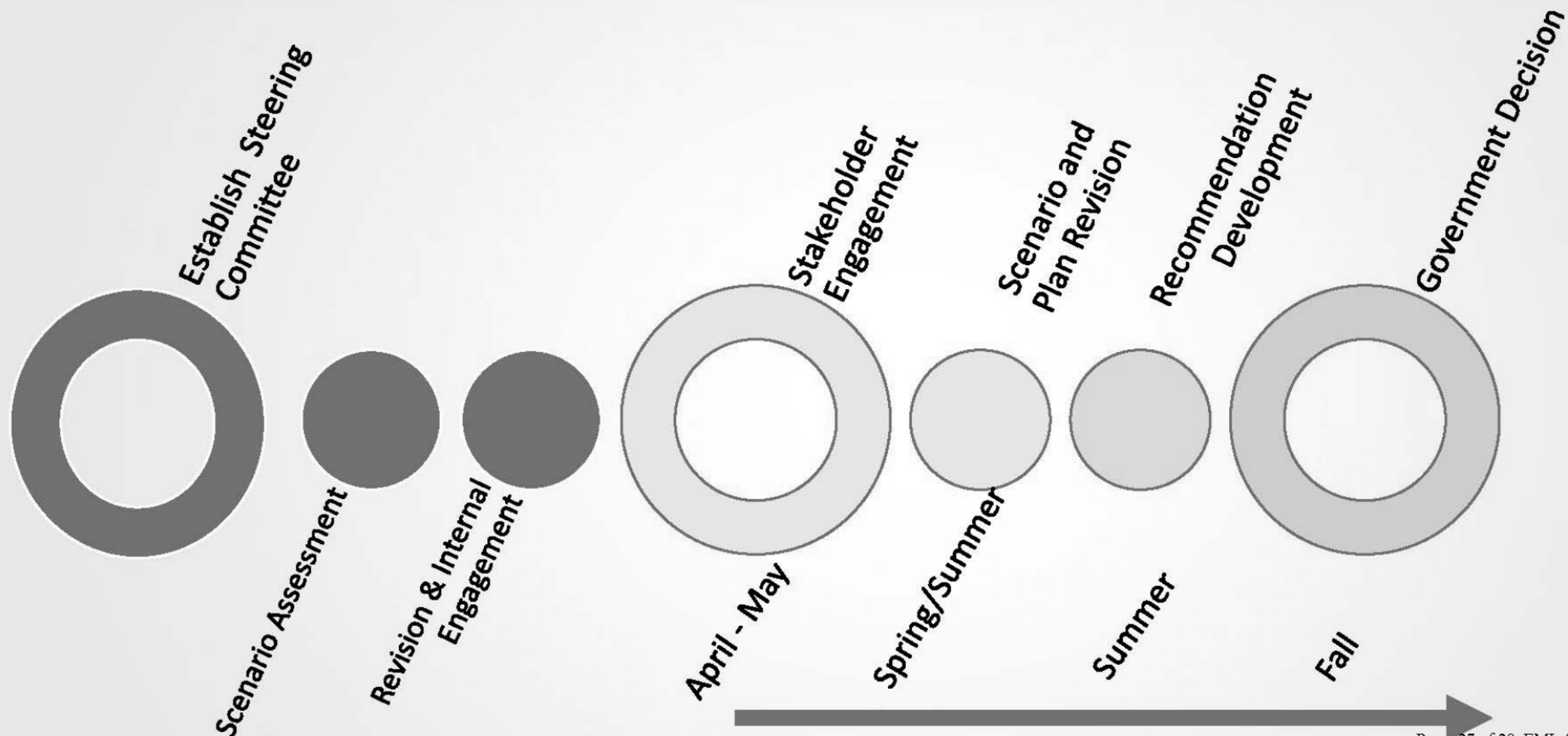


Petroleum & Natural Gas Volume Impact

| Herd Range | Range Area (Ha) | Tenured Range Area | Untenured Range Area | Estimated Potential PNG Resource Volumes (Tcf) | | |
|--------------------------------------|-----------------|-----------------------|-------------------------|---|------------------------|-------|
| | | | | Tenured Locations | Untenured Locations | Total |
| Calendar | 558,625 | 33% | 67% | 4 | 5 | 9 |
| Maxhamish | 1,011,989 | 40% | 60% | 42 | 72 | 114 |
| Snake-Sahtahneh | 1,340,416 | 37% | 63% | 14 | 16 | 30 |
| Westside Fort Nelson | 837,147 | 10% | 90% | 3 | 32 | 35 |
| AOI: Hay River / Shekilie | 123,791 | 41% | 59% | 0.1 | 0.1 | 0.2 |
| AOI: Muskwa / Westside Connection | 18,852 | 0% | 100% | - | 0.03 | 0.0 |



Next Steps





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Questions?



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