

## NORTH YUKON REGIONAL LAND USE PLAN CONFORMITY CHECK

<b>YESAB Project #</b>	2015-0104		
<b>Project Title:</b>	Sheep Creek Gravel Development Project – Km 433 Dempster Highway		
<b>Date:</b>	June 4, 2015	<b>Completed by:</b> (name)	Sam Skinner
<b>Submitted to:</b>	YESAB Dawson Designated Office Box 5060 Dawson City, YT Y0B 1G0		

**Project conforms to Regional Land Use Plan: (select one)      Yes**

### Background Information and Conformity Check Analysis

<b>Affected Landscape Management Unit(LMU)(s):</b> (insert rows as needed for additional LMUs) Map 1 and Section 6							
LM Unit #	10A	LMU Name:	South Richardson Mountains				
Zoning:	IMA - II	Land Owner:	YG				
LM Unit #	10B	LMU Name:	Rock River - Mount Joyal				
Zoning:	IMA - II	Land Owner:	YG				
<b>Landscape Disturbance Indicators:</b> ) Table 3.2, sections 3.3.1.1, 5.1.1							
Surface Disturbance (ha):							
LMU	Cautionary Level	Critical Level	Current est. Level*	Project Estimate ***	Total Estimate	Notification Rqr'd**	Parties Notified
10A	117.05 ha	156.07 ha	104.50 ha	N/A (<4 ha)	Not determined	No	No
10B	356.04 ha	474.72 ha	607.40 ha	N/A (<4 ha)	Not determined	No	No
Linear Disturbance (km):							
LMU	Cautionary Level	Critical Level	Current est. Level*	Project Estimate ***	Total Estimate	Notification Rqr'd**	Parties Notified
10A	117.05 km	156.07 km	4.90 km	N/A (<0.5km)	Not determined	No	No
10B	356.04 km	474.72 km	246.20 km	N/A (<0.5km)	Not determined	No	No
<p>*current <u>estimated</u> cumulative effects levels are to be provided by the Plan Parties, but interim values provided by the North Yukon Planning Commission are provided here for completeness.</p> <p>** the YLUPC shall notify the Parties prior to submitting the conformity check to YESAB if they are concerned cautionary or critical levels may be reached</p> <p>***Not Applicable because the project falls within the 2km-wide Dempster Highway corridor (see NYRLUP p 5-25), which is exempt from disturbance indicator monitoring.</p>							

**Special Management Considerations: (Section 6, LMUs)**

1. Maintaining the visual quality of mountain and sub-arctic views along this segment of Dempster Highway is a management priority.
2. Important Porcupine Caribou Herd concentrated use area during fall, winter and spring periods.
3. Potential new all-season access roads into LMU #10A from Dempster Highway corridor require careful assessment and management.

**Affected Values and General Management Directions (GMD): (Section 5)**

Only include values identified in LMU. If no GMDs exist or are relevant, do not include in this table.

Ecological Resources:	Corresponding GMD:
Terrestrial habitat	<p>2.1.1 Reduce size, intensity and duration of human-caused physical surface disturbances (e.g., utilize low impact seismic, winter roads and enhanced reclamation).</p> <p>2.3.1 Avoid or reduce activities in significant wildlife habitats during important biological periods (e.g., utilize timing windows).</p>
Aquatic habitat	<p>3.1.1 Minimize surface and vegetation disturbance in riparian areas.</p> <p><b>3.1.2 Avoid in-stream aggregate (gravel) extraction.</b></p>
Significant fish over-wintering and spawning habitat	<p>3.3.1 Avoid direct disturbance to sensitive over-wintering habitats.</p> <p>3.3.3 Avoid or reduce activities in fish habitat during important biological periods or seasons (utilize timing windows).</p>
Wetlands, lakes, rivers, and sensitive permafrost areas	<p><b>4.1-3.1 Avoid or minimize industrial land use activities in wetlands and riparian areas.</b></p> <p>4.1-3.3 Reduce surface and vegetation impacts in riparian and sensitive permafrost areas. (as in 3.1.1 above)</p> <p>4.2.4 Minimize alteration of drainage patterns, water flow and soil temperature.</p>
Heritage, Social, Cultural Resources:	Corresponding GMD:
First Nations land-based subsistence lifestyles and harvesting	5.1.1 Minimize land use impacts in the vicinity of identified heritage and historic resources.
Economic Development:	Corresponding GMD:
Maintain opportunities to access lands and resources for a variety of land users and uses	6.1.1 Minimize land use conflicts by avoiding or reducing the level of land use activities in important subsistence harvesting areas and current community use areas.
Maintenance of a mixed economy	6.3.2 Avoid or reduce activities in significant heritage and current community use areas during important seasonal use periods (e.g., utilize timing windows).

<b>Plan Recommended Best Management Practices:</b> (Section 5 following each value)	
Wildlife	<ul style="list-style-type: none"> <li>• Use appropriate operational timing-windows in significant wildlife habitats to minimize activities, whenever possible, during periods of wildlife use.</li> <li>• When new access creation is necessary: <ul style="list-style-type: none"> <li>• Non-permanent winter access routes should be developed and utilized versus all-season access routes.</li> <li>• Gate or otherwise restrict hunting along new access routes.</li> <li>• Where possible, direct new access routes through less significant wildlife habitats.</li> </ul> </li> </ul>
Porcupine Caribou	<ul style="list-style-type: none"> <li>• Consider the following seasons when determining appropriate operational timing-windows (seasons when Porcupine caribou occupy the region)</li> </ul>
Significant fish over-wintering and spawning habitat	<ul style="list-style-type: none"> <li>• To minimize potential impacts to regional fish populations, aggregate (gravel) mining should be prohibited in significant fish habitats.</li> <li>• <b>If aggregate mining is required in significant fish habitats, appropriate operational timing-windows should be utilized to minimize activities during important biological periods.</b></li> </ul>
Wetlands, lakes, rivers, and sensitive permafrost areas	<ul style="list-style-type: none"> <li>• Where new all-season or winter access roads and/or trails are required to cross Major River and other riparian corridors, these should be designed, constructed, and used in a manner that minimizes direct and indirect impacts to fish, wildlife and their habitats.</li> <li>• <b>Surface disturbance and land use activities within and adjacent to Major River and other riparian corridors should not result in diminished water quality, quantity or flow.</b></li> <li>• Whenever possible, avoid aggregate (gravel) mining activities in Major River Corridors.</li> </ul>
Heritage and Culture	<ul style="list-style-type: none"> <li>• Avoid and/or mitigate exploration and development activities and impacts in areas with known heritage or historic resource values, where such areas or sites are not otherwise protected through existing land withdrawals</li> </ul>
Transportation & Access	<ul style="list-style-type: none"> <li>• Whenever possible, land use activities should be coordinated to utilize the same access route(s).</li> </ul>
Aggregate Resources	<ul style="list-style-type: none"> <li>• <b>To minimize potential impacts to regional fish populations, aggregate (gravel) mining should be prohibited where it may affect significant fish habitats.</b></li> <li>• Minimize gravel requirements for necessary infrastructure through coordinated access, feature reduction, and geo-technical engineering</li> <li>• Ensure efficient use of identified aggregate resources.</li> </ul>

### Additional Analysis or Comments:

- The North Yukon Land Use Plan generally supports the on-going maintenance of the Dempster Highway. Surface and linear disturbances incurred by this project are exempt from the cumulative effects assessment for the two LMUs involved because they are within 1km of the highway.
- This project coordinates two land uses (on-going culvert maintenance and aggregate development), and attempts to focus activities to areas that are already disturbed. The Plan supports these concepts.
- Many of the General Management Directions (GMDs) and Best Management Practices (BMPs) listed in the North Yukon Regional Land Use Plan are applicable to this proposal; however, several of the most relevant are listed in the above 2 tables for convenience. **GMDs and BMPs listed above in bold may not be addressed in this proposal.**
- **The Plan is adverse to in-stream aggregate (gravel) extraction, but does not rule out that activity.**
- The North Yukon Planning Commission noted that this area is a “Significant Riparian Corridor”, but did not suggest that it was potential overwintering habitat. Direction from DFO should clarify this.
- The North Yukon Planning Commission noted that this area is a concentrated use area for Porcupine caribou in the rutting and winter season (October 8<sup>th</sup> – March 31<sup>st</sup>) (Ryder *et al.* 2006). Since the project’s timing doesn’t overlap with typical caribou use, there shouldn’t be any direct disturbance to caribou. The identified mitigations appear to be sufficient.
- The North Yukon Planning Commission noted a concentration of documented archeological sites in the immediate vicinity of the project area. These appear to have been adequately considered.
- The Plan recommends gates (or other measures to restrict hunting) for new access routes. Therefore roads to the streambed and stockpile area should be gated.
- The proposed access roads from the North to the streambed appear to pass through old stands of relatively large spruce trees near the two VGFN site selections (current and future).
  - These trees may discourage informal roads around gates; however, subject to engineering and archeological considerations, access from the south:
  - Appears to pass through a seral stand of deciduous trees which may expedite recovery (at least aesthetically), and
  - Would move traffic away from site selection(s).
  - Suggestion: Discuss routing with residents (if any) of the site selection.
- Residents (if any) of the adjacent site selection (and more broadly local land-users) should be consulted to adjust the timing of the operations to minimize land use conflict. As the proposal discussed, there shouldn’t be any issues in the proposed season.
- Stockpile area 1 would be most consistent with Plan direction, since it would result in no increase in surface disturbance. The other options for stockpiles would be adequate.

**References:**

Ryder, J.L., P. McNeil, J. Hamm, W.A. Nixon, D. Russell and S. Francis. 2006. An integrated assessment of Porcupine caribou seasonal distribution, movements, and habitat preferences for regional land use planning in northern Yukon Territory, Canada. *Rangifer* **17**: 259-270.