



Mackenzie Valley Land and Water Board
7th Floor - 4910 50th Avenue
P.O. Box 2130
YELLOWKNIFE NT X1A 2P6
Phone (867) 669-0506
FAX (867) 873-6610

**LIARD SOUTH
APPLICATION FOR:**

NEW LAND USE PERMIT
AMENDMENT TO _____

**Attachment A
Celibeta Project Details**

September 2018

**Prepared By
Paramount Resources Ltd.**



Suite 2800, 421 7th Avenue SW
Calgary, AB T2P 4K9

Phone: (403) 290-3600
Fax: (403) 262-7994

Table of Contents

1.0	SUMMARY OF OPERATION.....	1
1.1	Paramount’s Liard South Project Overview	1
1.2	Scope of Application	1
1.3	Consultation	1
2.0	SUMMARY OF POTENTIAL ENVIRONMENTAL AND RESOURCE IMPACTS	2
3.0	MITIGATION	2
3.1	Land (Terrain, Vegetation, Soil and Permafrost)	2
3.2	Water & Aquatic Species	2
3.3	Fauna (Wildlife)	3
3.4	Fauna (Species at Risk)	3
3.4.1	Asio flammeus (Short-eared Owl)	4
3.4.2	Bison bison athabasca (Wood Bison)	4
3.4.3	Bufo boreas (Western Toad).....	5
3.4.4	Chordeiles minor (Common Nighthawk).....	5
3.4.5	Contopus cooperi (Olive-sided Flycatcher).....	6
3.4.6	Euphagus carolinus (Rusty Blackbird).....	6
3.4.7	Hirundo rustica (Barn Swallow)	6
3.4.8	Gulo gulo (Wolverine)	7
3.4.9	Rana pipiens (Northern Leopard Frog).....	7
3.4.10	Salvelinus confluentus (Bull Trout)	8
3.4.11	Rangifer tarandus caribou (Woodland Caribou – boreal population).....	8
3.4.12	Ursus Arctos Horribilis (Grizzly Bear).....	9
3.5	Heritage Resources.....	9
3.6	Socio-economic	9
4.0	PROPOSED RESTORATION PLAN	10
5.0	EQUIPMENT	11
	REFERENCES	12

List of Tables

Table 1: Liard South Components.....	1
Table 2: Species at risk with ranges that overlap the Liard South Project area	3
Table 3: List of Potential Temporary Equipment.....	11

1.0 SUMMARY OF OPERATION

1.1 PARAMOUNT'S CELIBETA NWT PROJECT OVERVIEW

As a result of an acquisition in 2017, Paramount Resources Ltd. (Paramount) is the operator of the Celibeta, NWT Project ("The Project"), which will encompass a winter access road and well site. The well was drilled in 1959-1960 and further suspension work was completed in 1990. The well has never been tied-in and has never produced. Inspections of the well have been taking place via helicopter since 2013. Paramount has reviewed the historical files and has not been able to determine the original access or the access used in 1990. Paramount has scouted access along existing cutlines. It is anticipated the access will be approximately 32.5 km from Paramount's existing access in Liard East (MV2013A0013).

At this time, the Celibeta Project is not operating except for on-going annual well inspection. Long term future plans for the Celibeta Project are to abandon the well to comply with the guidelines set out by the Office of the Regulator for Oil and Gas Operations of the Northwest Territories (https://www.orogo.gov.nt.ca/sites/orogo/files/resources/orogo_well_suspension_and_abandonment_guidelines_and_interpretation_notes.pdf). Following abandonment Paramount would undertake reclamation work in subsequent years.

1.2 SCOPE OF APPLICATION

Currently, The Project, does not have a Land Use Permit ("LUP"), Paramount is applying for a LUP to facilitate the required suspension and abandonment work.

Table 1: Celibeta Project Components

Component	Status	Location (Lat/Long)	Area (Hectares)
Well Site			
Paramount et al Celibeta H-78	Built	60° 10'N, 122° 00'W	1.1 ha (110mX100m)
Well Site Subtotal			13.5 ha
Winter Access Roads			
From Bovie F-66 wellsite to H-78 wellsite	To Be Built	60° 20'122° 45'W to 60° 10'122° 00'W	32.5 ha (10mX32,500m)
Winter Access Road Subtotal			32.5 ha
Total Hectares for Project			46.00 ha

1.3 CONSULTATION

Paramount commenced consultation on the project components listed under the application in the summer of 2018. In support of The Project Paramount is submitting a Consultation Plan to the Mackenzie Valley Land and Water Board (MVLWB) as part of the LUP and Water Licence (“WL”) applications. Additionally a consultation log and the notification sent to stakeholders for the current the project is included with the applications.

2.0 SUMMARY OF POTENTIAL ENVIRONMENTAL AND RESOURCE IMPACTS

Given that almost all components of the project have been previously disturbed, most potential environmental and resource impacts have already been realized. Additional clearing to widen the cut lines that will serve as access and clearing of some of the wellsite will prolong some of the environmental impacts. Currently, Paramount simply monitors the sites and implements corrective action as required. When Paramount moves forward with the suspension and/or abandonment it will adhere to the guidelines and best management practices (see section 3.0 Mitigation).

3.0 MITIGATION

3.1 LAND (TERRAIN, VEGETATION, SOIL AND PERMAFROST)

To mitigate potential impacts to terrain, vegetation, soil and permafrost, Paramount will employ the mitigation measures as presented in the documents listed below.

- GNWT. 1993. Environmental guidelines for the construction, maintenance and closure of winter roads in the Northwest Territories. Prepared by Stanley Associates Engineering Ltd., Yellowknife and Sentar Consultants Ltd., Winnipeg Prepared for The Department of Transportation, Yellowknife. 73 pp. + apps.
- Liard Area Emergency Response Plan
- Hazardous Material Spill Contingency Plan Liard, NT and Maxhamish, B.C. Areas
- Operating Guidelines for Permafrost Areas
- Soil Erosion Contingency Measures
- Warm Weather Contingency
- Waste Management Plan Liard Area, NWT

3.2 WATER & AQUATIC SPECIES

To mitigate potential impacts to water and aquatic species, Paramount will employ the mitigation measures as presented in the documents listed below.

- Fisheries and Oceans Canada Northwest Territories Operational Statements
 - Notification Form
 - Timing Windows
 - Ice Bridges and Snow Fills
 - Temporary Stream Crossing
 - Clear-Span Bridges
 - Bridge Maintenance
- Canadian Association of Petroleum Producers, Canadian Energy Pipeline Association and Canadian Gas Association. 2005. Pipeline Associated Watercourse Crossings. Prepared by TERA Environmental Consultants and Salmo Consulting Inc. Calgary, AB.
- DFO Protocol for Water Withdrawal for Oil & Gas Activities in the Northwest Territories **and** Changes to DFO Protocol for Winter Water Withdrawal in the NWT
- DFO (Fisheries and Oceans Canada). 1995. Freshwater Intake End-of-Pipe Fish Screen Guidelines

3.3 FAUNA (WILDLIFE)

To mitigate potential impacts to fauna, Paramount will employ the mitigation measures as presented in the documents listed below.

- GNWT. 2002. Safety in Grizzly and Black Bear Country, 3rd ed. Department of Resources, Wildlife and Economic Development.

3.4 FAUNA (SPECIES AT RISK)

Ten wildlife species with ranges that overlap the Liard South Project area have been listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (EC and GNWT, 2014). Two of these species are legally protected by the federal *Species at Risk Act* (Table 2). Potential impacts to species at risk have been given special attention because wildlife will use disturbed habitat, making them susceptible to activity on existing industrial sites.

Table 2: Species at risk with ranges that overlap the Liard South Project area

Scientific Name	Common Name	NT Status Rank	COSEWIC Status Rank	SARA Status
<i>Asio flammeus</i>	Short-eared owl	Sensitive	Special Concern	Special Concern on Schedule 3
<i>Bison bison athabasca</i>	Wood bison	At Risk	Special Concern	Threatened on Schedule 1

Scientific Name	Common Name	NT Status Rank	COSEWIC Status Rank	SARA Status
<i>Anaxyrus boreas</i>	Western toad	May Be At Risk	Special Concern	Special Concern on Schedule 1
<i>Chordeiles minor</i>	Common Nighthawk	At Risk	Threatened	Threatened on Schedule 1
<i>Contopus cooperi</i>	Olive-sided Flycatcher	At Risk	Threatened	Threatened on Schedule 1
<i>Euphagus carolinus</i>	Rusty Blackbird	Sensitive	Special Concern	Special Concern on Schedule 1
<i>Gulo gulo</i>	Wolverine	Sensitive	Special Concern	Not Listed
<i>Hirundo rustica</i>	Barn Swallow	Sensitive	Threatened	Not Listed
<i>Lithobates pipiens</i>	Northern leopard frog	May Be At Risk	Special Concern	Special Concern on Schedule 1
<i>Podiceps auritus</i>	Horned Grebe	Sensitive	Special Concern	Not Listed
<i>Rangifer tarandus caribou</i>	Boreal woodland caribou	Sensitive	Threatened	Threatened on Schedule 1
<i>Salvelinus confluentus</i>	Bull Trout	May Be At Risk	Special Concern	Not Listed
<i>Ursus arctos</i>	Grizzly bear	Sensitive	Special Concern	Not Listed
<i>Cardellina canadensis</i>	Canada Warbler	At Risk	Threatened	Threatened on Schedule 1

3.4.1 ASIO FLAMMEUS (SHORT-EARED OWL)

Short-eared owls are birds of open-county, favoring habitats such as prairies, grasslands, heathlands, shrub-steppe and tundra but opportunistically inhabit areas where small mammals are abundant. Northern populations of short-eared owls are believed to be highly migratory: short-eared owls arrive in northern breeding areas mid-May to early June. The migratory nature of short-eared owls removes them from the NT during the winter, which is the time activities would occur. Crude ground nests, which are not used year after year, consist of a scratch lined with grasses and down (NT, 2006a). Harm to nests would not occur as a result of winter activities. For these reasons, potential disturbance is not expected to impact short-eared owls; therefore, no mitigation to target this species specifically is planned. In the NWT, threats to short-eared owls are limited (EC and GNWT, 2008).

3.4.2 BISON BISON ATHABASCAE (WOOD BISON)

Wood bison spend spring and early summer foraging in mesic grassy meadows and willow savannas. During late summer and fall, they disperse into small groups for the rut and occupy mixed wood forests in addition to meadows. In winter, when wood bison feed almost exclusively on sedges, wet sedge meadows again are heavily used (Larter and Gates, 1994).

The preference of wood bison for foraging in open grassy areas means they can often benefit from certain alterations in the environment associated with oil and gas exploration. Grasses and forbs used to seed disturbed sites are a potentially significant source of forage (Harper *et al*, 2000). In any event, the main factor limiting wood bison in the NWT is not habitat loss but disease (NT, 2006b). For these reasons, the proposed project is not expected to directly impact wood bison populations. Consequently, mitigation to focus on this species specifically is not planned.

3.4.3 BUFO BOREAS (WESTERN TOAD)

Western toads use different habitat for breeding, summer, and wintering. Preferred breeding sites are permanent or temporary water bodies that have shallow sandy bottoms. Summer terrestrial range may include damp forests and grasslands. Western Toads spend much of their time underground; though they are capable of digging their own burrows in loose soils, they generally shelter in small mammal burrows, beneath logs and within rock crevices. They hibernate in burrows below the frostline, up to 1.3 metres underground (Province of British Columbia).

Given that western toads winter in burrows, they may be impacted as a result of ground disturbance (*i.e.*, reclamation). Potential impacts to western toads will be mitigated by identifying small mammal burrows, if any, during the summer preceding planned reclamation work. Inactive burrows will be destroyed to prevent western toads from selecting them for winter hibernation.

3.4.4 CHORDEILES MINOR (COMMON NIGHTHAWK)

The breeding habitat of the common nighthawk is varied and includes open habitats where the ground is devoid of vegetation, such as sand dunes, beaches, logged areas, burned-over areas, forest clearings, rocky outcrops, rock barrens, prairies, peatbogs and pastures (Savignac, 2007). Their affinity for area devoid of vegetation perhaps makes the common nighthawk less susceptible to impact resulting from development.

Potential threats to the common nighthawk in the NWT include collisions with motor vehicles and aircraft, human activities resulting in increased numbers of predators (cats, foxes, ravens and gulls) and reductions in insect prey owing to pesticide use. Motor vehicle traffic in the Celibeta area is not expected, helicopters are the dominant form of transportation. Since the common nighthawk winters in South America, collisions with motor vehicles would be avoided. Other impacts to common nighthawks as a result of the Celibeta Project will be mitigated through the measures listed below.

- Wildlife will not be fed or harassed. All garbage will be collected and stored in secured containers in order to not attract wildlife.
- The widespread use of pesticides will not occur, as pesticide use is not a common practice in the oil and gas industry.

3.4.5 CONTOPUS COOPERI (OLIVE-SIDED FLYCATCHER)

In the boreal zone, the olive-sided flycatcher is most common in open spruce and tamarack muskeg, bogs, and swamps. It is strongly associated with openings and edges in coniferous forest habitats. Thus, it responds favorably to logging and fires if sufficient snags and residual trees remain to provide foraging and singing perches. Their affinity for openings and edges perhaps makes the olive-sided flycatcher less susceptible to impact resulting from development.

The most serious threats to the olive-sided flycatcher are thought to be applicable to their primary wintering grounds (EC and GNWT, 2014) in Panama and the northern Andes from northern Venezuela to western Bolivia. Breeding habitat for the olive-sided flycatcher does not appear to be imperiled. The migratory nature of olive-sided flycatchers removes them from the NWT during the winter, which is the time that winter activities would occur. For these reasons, the proposed project is not expected to impact olive-sided flycatcher populations. Consequently, mitigation to focus on this species specifically is not planned.

3.4.6 EUPHAGUS CAROLINUS (RUSTY BLACKBIRD)

The rusty blackbird breeds throughout a range of 7.6 million km², which corresponds closely to the boreal forest and includes most Canadian provinces and territories, the state of Alaska, several Great Lakes states and most New England states (Environment Canada, 2006a). Breeding habitat is characterized by forest wetlands, such as slow-moving streams, peat bogs, sedge meadows, marshes, swamps, beaver ponds and pasture edges.

The most serious threats to the rusty blackbird are thought to be the conversion of the species' primary winter habitats in the Mississippi Valley flood plain forests to agricultural and urban land uses, and bird control programs that have prevailed in the southeastern United States since the 1970's (Environment Canada, 2006a). Breeding habitat for the rusty blackbird does not appear to be imperiled. The migratory nature of rusty blackbirds removes them from the NWT during the winter, which is the time that winter activities would occur. For these reasons, the proposed project is not expected to impact rusty blackbird populations. Consequently, mitigation to focus on this species specifically is not planned.

3.4.7 HIRUNDO RUSTICA (BARN SWALLOW)

The Barn Swallow is the most widespread species of swallow in the world and is found on every continent except Antarctica. The Barn Swallow winters throughout Central and

South America; and breeds in all provinces and territories except Nunavut (EC and GNWT, 2014).

Although population declines of the Barn Swallow are poorly understood, the main causes of recent decline are thought to be 1) loss of nesting and foraging habitats; 2) large sale declines in insect populations (or other perturbations); and 3) direct and indirect mortality due to an increase in climate perturbations on breeding grounds (cold snaps) (COSEWIC, 2011).

3.4.8 GULO GULO (WOLVERINE)

The wolverine inhabits a diversity of ecozones, including the Boreal Forest and Subalpine regions. Home ranges typically cover hundreds of square kilometers and encompass a variety of habitat types (Petersen, 1997; NT, 2006c). Wolverines mate in the summer and birth occurs between February and May in a den. Protection of natal denning habitat from human disturbance just prior to and during denning is likely to be critical for the persistence of wolverine in disturbed landscapes. As well, secure rendezvous sites are required (Magoun *et al.*, 2004).

In the NWT, factors in the decline of wolverine populations include the elimination of wilderness and intensive human hunting. Exploration and development increases access and opportunities to hunt and trap. Intensive human hunting of game animals also is known to influence the wolverine; however, wolverines have not been affected by loss of prey in the NWT (NT, 2006c).

To mitigate potential impacts to wolverine, Paramount will scout sites prior to undertaking activities that may impact active natal denning habitat. In the event that wolverines or active natal denning habitat is observed near sites, activity will be minimized so as not to disturb the animals and the appropriate authorities will be notified.

3.4.9 RANA PIPIENS (NORTHERN LEOPARD FROG)

The Northern leopard frog breeds in shallow standing water that is not suitable for fish and is located in an open area. A typical breeding pond is 30 to 60 m in diameter and 1.5 to 2.0 m deep. Summer feeding areas are located along the margins of water bodies. Open and semi-open areas with short vegetation (15 to 30 cm) are preferred. Areas with tall, dense marsh vegetation, grasses, extensive shrub cover or dense trees are avoided. Over-wintering sites are well-oxygenated water bodies that do not freeze solid, such as streams or larger ponds.

Water withdrawal is not expected in the project area (limited to the Liard River) thus potential over-wintering sites were not identified at that time. Therefore, no mitigation to target this species specifically is planned.

3.4.10 SALVELINUS CONFLUENTUS (BULL TROUT)

The Bull Trout is widely distributed, but in low abundance, throughout much of the southern (Dehco) and central (Sahtu) NWT in drainages west of the Mackenzie River. The northernmost location known is the Gayna River. Spawning occurs in the fall in water temperatures below 10 °C in clean flowing streams over cobble or loose gravel. These areas are typically associated with groundwater sources (EC and GNWT, 2014).

The most serious threats to Bull Trout, however, are from human disturbance. The greatest threat is habitat loss through degradation and fragmentation. Commercial forestry, hydroelectric, oil, gas and mining development, agriculture, urbanization, and their associated road development, and climate change may all contribute to this. Interactions with other species strongly influence the local distribution and abundance of Bull Trout (COSEWIC, 2012).

3.4.11 RANGIFER TARANDUS CARIBOU (WOODLAND CARIBOU – BOREAL POPULATION)

The Liard South, NWT Project area coincides with woodland caribou – boreal population range. Impacts to caribou as a result of the Liard South, NWT Project will be mitigated through the measures listed under the “Land”, and “Fauna (Wildlife)” sections, in addition to the following procedures.

- In an effort to improve our understanding of species response to linear features, Paramount, of its own accord, undertook a study, which has led to its involvement in rigorous, scientific research being conducted by Dr. Erin Bayne, Assistant Professor with the Integrated Landscape Management Group at the University of Alberta. Partners in this research initiative include Paramount, the GNWT and EC. Paramount is interested in this research for a number of reasons, the top two being:
 1. Paramount wants to better understand the disturbance caused by linear features. More specifically, we want to know which linear features are disturbance and which are not. This information will allow Paramount to more accurately quantify linear disturbance in the Project area. In the future, Paramount will consider research results when planning seismic programs.
 2. Paramount wants to generate information that will allow a meaningful review of the linear disturbance density threshold that is applied by the MVLWB.
- Linear disturbance will not increase. Linear development has the potential to alter the distribution of predators and increases hunting efficiency (BCC, 2001). Loss of mature forest on a different scale, clear cuts, for example, may compromise the predator avoidance strategy of caribou, which is to avoid

alternate prey populations and their predators. Consequently, caribou may become secondary prey (Wittmer *et al.*, 2005).

- To minimize pressure on caribou as a result of hunting, project traffic is forbidden to hunt.

3.4.12 URSUS ARCTOS HORRIBILIS (GRIZZLY BEAR)

Grizzly Bears are habitat generalists, and can be found from sea level to high-elevation alpine environments (Government of Canada, 2009). Grizzly bears in the NT primarily occur in open alpine or tundra habitats, but they can also be found in forested areas (NT, 2006d). Suitable grizzly habitat must provide an adequate food supply, appropriate denning sites, and isolation from human disturbance (Government of Canada, 2009). No critical habitat for grizzly bear has been identified in the Liard South Project area (Golder, 1999).

The development of roads, railroads, power lines and other linear features within grizzly bear habitat is a particular threat. Roads themselves pose little harm, but their use by humans, and the avoidance of a buffer zone around the roads, makes large amounts of habitat much less available to the bears. In addition, roads provide access for humans with firearms who, legally or illegally, kill bears that would otherwise be less vulnerable (Government of Canada, 2009). To minimize pressure on grizzly bears as a result of hunting, project traffic is forbidden to hunt.

3.5 HERITAGE RESOURCES

Paramount is working with an approved contractor to complete an Archaeological Impact Assessment prior to construction activities. If the assessment provides information that the proposed access has potential to impact heritage resources, Paramount will apply to amend the LUP. During construction after the impact assessment is completed, in the unlikely event that an archaeological specimen is encountered, activities will be suspended and the Prince of Wales Northern Heritage Centre, the responsible authority, will be notified along with the MVLWB and the Land Use Inspector.

3.6 SOCIO-ECONOMIC

Given current status of the Celibeta Project, socio-economic benefits are limited. Periodic monitoring is the only sustained activity associated with the Celibeta Project in the current state, most of which is handled by Paramount employees. For the suspension and/or abandonment work Paramount will submit a Benefits Plan Northwest Territories Department of Industry, Tourism and Investment. Paramount will report annually on its activity in the area and the goods and services it sources locally.

Through its operatorship in Fort Liard, Paramount had been providing on-going business and employment opportunities primarily for Fort Liard community members. When suspension, abandonment and/or reclamation activities are conducted, Paramount would look to source goods and services locally to the extent possible. A list of the northern and/or alliance companies that provided related services to the Liard Projects in the past is provided below:

- Acho Camps & Catering Ltd.
- Acho Dene Koe
- ADK Formula
- ADK Pipeline
- Beaver Enterprises Limited Partnership
- Beaver Enterprises LP
- Cooper Barging Services Ltd.
- Great Slave Helicopters Ltd.
- Hope's Ventures
- Liard Fuel Centre
- Liard Valley General Store
- North Cariboo Air
- Northwestel Inc.
- RD Trucking

4.0 PROPOSED RESTORATION PLAN

Reclamation plans for the Celibeta Project currently are undetermined. However, it is possible that reclamation activities could be undertaken before November 2023, the potential expiry date of the LUP issued as a result of this application. A detailed, project-specific reclamation plan will be prepared at that time.

The fundamental principle governing restoration is that any restored land must be brought back to equivalent land use capability. To do so, existing guidelines and best management practices pertaining to environmental protection during suspension and abandonment, as well as assessment, remediation, closure and reclamation, will be considered (see following list).

- GNWT (Government of the Northwest Territories). 2003. Environmental Guideline for Contaminated Site Remediation. Environment and Natural Resources. 14pp + apps.
- (CCME) Canadian Council of Ministers of the Environment. 1993. Guidance Manual on Sampling, Analysis, and Data Management for Contaminated Sites, Volumes I and II.
- (CCME) Canadian Council of Ministers of the Environment. 2008. Canada-Wide Standard for Petroleum Hydrocarbons (PHC) In Soil: User Guidance. 42pp + apps.

5.0 EQUIPMENT

Potential, temporary equipment required to construct winter roads, maintain or remove permanent equipment, and reclaim sites is listed in Table 3; however, details can be confirmed only once activities and contractors are determined. Existing permanent equipment is listed in Table 4.

Table 3: List of Potential Temporary Equipment

Activity	Equipment Type	Quantity	Approximate Size	Proposed Use
Construction Equipment	Hoe excavator	2	--	Clearing
	Hydro axe	2	--	Clearing
	bulldozer	2	D5, 6, 7, 8, 9	Clearing and backfilling
	Mobile welding unit	1	--	Welding
	All terrain crane	1	20 to 34tonne	Lifting
	Mobile drill unit	1	14 tonne	Sampling
	Portable generator	4	5kw	Electrical supply
	Motor vehicles	25	variable	Fuel supply, medical unit, transport, <i>etc.</i>
Other	Water truck	4	--	Winter road maintenance, c amp and drilling rig
	Grader	3	D-16-G	Winter road maintenance
	Caterpillar	2 to 3	D5, WP, D6, D7	Winter road maintenance
Suspension and abandonment	Service Rig	1	--	To suspend F-36
	Wireline Unit	1	--	Assist in suspension F-36
	Rig Shack(s)	1 to 2	--	On site accommodation
	Tanks	1 to 2	400 barrel	Fluid storage
	Water Truck	1		Water supply
	Cementing Equipment	1		Cementing

REFERENCES

- BCC (Boreal Caribou Committee). 2001. Strategic plan and industrial guidelines for boreal caribou ranges in northern Alberta. Edmonton, Alberta.
- (COSEWIC) Committee on the Status of Endangered Wildlife in Canada. 2011. COSEWIC Assessment and Status Report on the Barn Swallow *Hirundo rustica* in Canada.
- (COSEWIC) Committee on the Status of Endangered Wildlife in Canada. 2012. COSEWIC Assessment and Status Report on the Bull Trout *Salvelinus confluentus* South Coast British Columbia populations, Western Arctic populations, Upper Yukon Watershed populations, Saskatchewan - Nelson Rivers populations, Pacific populations.
- EC and GNWT (Environment Canada and Government of the Northwest Territories). 2014. Species at Risk in the Northwest Territories a Guide to NWT Species At Risk In the NWT: 2014.
- Environment Canada. 2006a. Species at risk: rusty blackbird. Canadian Wildlife Service, Quebec Region.
- Government of Canada. 2009. Species at Risk Registry: Grizzly Bear Northwestern Population.
- Environment Canada. 2006b. Species at risk: rusty blackbird. Canadian Wildlife Service, Quebec Region.
- Golder (Golder Associates Ltd.). 1999. Environmental Impact Assessment for the 1999/2000 Fort Liard Drilling Project. 90pp + apps.
- Harper, W.L., J.P. Elliott, I. Hatter, and H. Schwantje. 2000. Management Plan for Wood Bison in British Columbia. B.C. Minist. Environ., Lands and Parks, Victoria, BC. 43 pp.
- Larter, N and C. Gates. 1994. Home range size of wood bison: effects of age, sex and forage availability. *Journal of Mammology*, 75(1): 142-149.
- Magoun, A., Dawson, N. Ray, J., Bowman, J. and Lipsett-Moore, C., and Lipsett-Moore, G. 2004. Boreal wolverine: a focal species for land use planning in Ontario's northern boreal forest project report. 27 pp.

(NT) Northwest Territories. 2006a. Northwest Territories species at risk fact sheets: NT Short-eared Owl (*Asio flammeus*). Environment and Natural Resources, Wildlife Division.

(NT) Northwest Territories. 2006b. Northwest Territories species at risk fact sheets: NT Wood Bison (*Bison bison athabasca*). Environment and Natural Resources, Wildlife Division.

(NT) Northwest Territories. 2006c. Northwest Territories species at risk fact sheets: NT Wolverine (*Gulo gulo*). Environment and Natural Resources, Wildlife Division.

(NT) Northwest Territories. 2006d. Northwest Territories species at risk fact sheets: Grizzly Bear (*Ursus arctos horribilis*). Environment and Natural Resources, Wildlife Division.

Northwest Territories Environment and Natural Resources . 2015. NWT Species 2011-2015 General Status Ranks of Wild Species in the Northwest Territories. Available at: http://www.nwt-species-at-risk.ca/sites/default/files/nwt_species_2011_2015.pdf

Petersen, S. 1997. Status of the Wolverine (*Gulo gulo*) in Alberta. Alberta Environmental Protection, Wildlife Management Division, Wildlife Status Report No. 2, Edmonton, AB. 17 pp.

Province of British Columbia. 2007. BC Frogwatch Program: western toad. Environmental Stewardship Division, Ministry of Environment.

Savignac, C. 2007. COSEWIC Status Report On The Common Nighthawk *Chordeiles Minor*. Prepared For The Committee On The Status Of Endangered Wildlife In Canada.

Wittmer, H.U., A.R.E. Sinclair and B.N. McLellan. 2005. The role of predation in the decline and extirpation of woodland caribou. *Oecologia* **144**: 257-267.