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**Appendix 4C**  
**Project Inclusion List for Cumulative**  
**Effects Assessment**

NTLU LSA	CEA Study Area (based on NTLU RSA)	Land Use Type	Project	Location	Status	Distance/ (km) and direction from Project	Developer / Company	Cost (millions)	Start	Finish	Description	Spatial overlap with Project	Temporal overlap with Project	Include in Cumulative Effects Assessment
<b>GENERAL LAND USES DESCRIBED IN NON-TRADITIONAL LAND USE SECTION (APPENDIX XX)</b>						<b>RATIONALE FOR INCLUSION</b>								
No	Yes	Community	District of Vanderhoof	Located at the geographic centre of BC, 100 km west of Prince George along Hwy 16.	On-going	~ 100 km north of the Project mine site	n/a	n/a	Ongoing	Indefinite	Vanderhoof is a community of 4,480 residents and is a service centre to the surrounding rural population. The community reported a positive rate of growth from 2006 to 2011 by 10.2%. Today, important industries still include agriculture and logging as well as tourism. The community is accessible by Hwy 16 and commercial transportation in and out of Vanderhoof includes bus service as well as train. Vanderhoof is the closest urban centre to the proposed mine site.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
No	Yes	Community	Village of Fraser Lake	Located south of Fraser Lake along Hwy 16 between the proposed northern terminus of the transmission line and access route on Hwy 16.	On-going	~ 90 km north of the Project mine site	n/a	n/a	Ongoing	Indefinite	The community reported a population of 1,167 in 2011, which was a 4.9% increase from 2006. Endako Mine and Fraser Lake Sawmill employs the majority of Fraser Lake residents.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Parks and Protected Areas	Various	Various - refer to NTLU Baseline Report appended to this application  Figure 1 and 2 in Appendix 4E-1	On-going	Various	n/a	n/a	Ongoing	Indefinite	The Stellako River Wildlife Management Area, located between Fraser and Francois Lakes, is intersected by the transmission line (main) study area. No other parks or protected areas are intersected by the Project LSA; although several areas are located 3 to 5 km from the FSR or transmission study area.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Mining	Exploration / developed prospects, prospects and showings	Various - refer to NTLU Baseline Report appended to this application  Figure 1 and 2 in Appendix 4E-1	Historical / active and pending	Various	Various	n/a	Ongoing	Indefinite	<u>Two developed prospects:</u> - Vanderhoof Limestone (MINFILE No. 093G 008) is located 19 km southeast of Vanderhoof and was last sampled in 1988. - Capoose property (MINFILE No. 093F 040) owned by the Proponent. <u>One prospect:</u> one prospect, Blackwater-Davidson (MINFILE No. 093F 037) represents proposed Project. <u>Three showings:</u> two along transmission line and one along FSR access route  Numerous registered mineral claims and tenures overlap the LSA and fall within the RSA.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Mining	Mineral Claims and Tenures	Various - refer to NTLU Baseline Report appended to this application  Figure 1 and 2 in Appendix 4E-1	Active	Various	Various	n/a	Ongoing	Indefinite	Numerous registered mineral claims and tenures overlap the LSA and fall within the RSA.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Mining	Endako Molybdenum Mine	Near Fraser Lake approximately 65 km west of Vanderhoof.	Operating		Thompson Creek Metals Company Inc.	n/a	1965. Upgraded in 2012	March 2012	Operated as a joint venture with Thompson Creek holding a 75% interest and Sojitz Corporation, a Japanese company, holding a 25% interest. The Endako Mine, surface molybdenum mine which began operations in 1965, was upgraded in 2012. The Endako Mine consists of three pits. The Endako Pit, the largest, was the focus of mining activity for many years. In January 2008, mining activity shifted entirely to the Denak West Pit and during 2008 the in-pit crusher was moved from the Endako Pit to an area between the Denak West and Denak East pits and an overland conveyor was installed from that location to the mill. The conveyor commenced transporting ore to the mill in March 2009. Plans call for the creation of a single pit by mining the walls between the three existing pits. (Thomson Creek 2013 - <a href="http://www.thompsoncreekmetals.com/s/Endako_Mine.asp">http://www.thompsoncreekmetals.com/s/Endako_Mine.asp</a> )	Yes	Operations - Yes	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Forestry	Logging activities	Various - refer to NTLU Baseline Report appended to this application  Figure 1 and 2 in Appendix 4E-1	Historical	Various	Various	n/a	n/a	pre 2012	Timber harvesting in the area began in the late 1980s. The historical / retired data represents areas already logged. 1,973 forestry tenures (representing 61% of the NTLU RSA) were retired between 2005 and 2011 in the NTLU RSA. Historical cutblocks are located throughout the Project LSA.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Forestry	Logging activities and transportation of logs along Kluskus FSR	Various - refer to NTLU Baseline Report appended to this application  Figure 1 and 2 in Appendix 4E-1	Active and pending	Various	Various	n/a	Ongoing	Indefinite	Represents areas to be logged as part of the Mountain Pine Beetle Action Plan . 1,267 forest tenures fall within the NTLU RSA which are divided between 1% pending (44 tenures) and 38% active (1,223 tenures). A variety of active and pending forest tenures owned by logging companies and First Nations are intersected by the Project LSA. Numerous tenure areas identified as Future Harvesting Inventory are intersected by the Project LSA. Several areas designated as having silviculture obligations also fall within the Project LSA.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Forestry	Woodlot Licences	Various - refer to NTLU Baseline Report appended to this application  Figure 1 and 2 in Appendix 4E-1	Active and pending	Various	Various	n/a	Ongoing	Indefinite	A Woodlot Licence is a legal agreement between the Forest Service and the licence holder that grants exclusive rights to manage and harvest Crown timber within the woodlot licence area. Two woodlot licences are intersected by the main transmission line study area; one of these woodlots is also intersected by the Mills Ranch re-route; and the other one is also intersected by the Stellako re-route. Eight registered woodlot licence holders with a total of 13 tenures are intersected by the FSR study area.	Yes	Unknown	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Forestry	Private Forest Lands	Various - refer to NTLU Baseline Report appended to this application  Figure 1 and 2 in Appendix 4E-1	Active and pending	Various	Various	n/a	Ongoing	Indefinite	The Private Managed Forest Land Program encourages private landowners to manage their lands for long-term forest production. Active forest tenures owned by private individuals are intersected by the Project LSA.	Yes	Unknown	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Hunting	Resident, Trapping and Guide Outfitting	Various - refer to NTLU Baseline Report appended to this application  Figure 1 and 2 in Appendix 4E-1	On-going	Various	Various	n/a	Ongoing	Indefinite	Residents in the area most commonly hunt moose, deer, wolf, and black bear, but also cougar, coyote, wolverine, lynx, and snowshoe hare. A total of 14 guide outfitter areas overlap the NTLU RSA with nine guide outfitters overlapping the Project LSA. A total of 78 registered traplines overlap the NTLU RSA with 22 traplines overlapping the Project LSA.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC

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Yes	Yes	Fishing	n/a	Various - refer to NTLU Baseline Report appended to this application Figure 1 and 2 in Appendix 4E-1	On-going	Vatious	Various	n/a	Ongoing	Indefinite	The Vanderhoof area is a popular fishing destination due to the area's vast network of streams, rivers, and lakes. A number of streams, rivers, and lakes are a short distance away from Vanderhoof and are accessed by paved or FSRs, while other more distant and less-accessible water bodies are accessed by kayak, canoe, boat, or float plane	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Agriculture	Individual properties	Various - refer to NTLU Baseline Report appended to this application Figure 1 and 2 in Appendix 4E-1	On-going	Vatious	Various	n/a	Ongoing	Indefinite	Four ALR properties are overlapped 86% by the main transmission line study area. Three ALR properties are intersected by the Stellako re-route (which accounts for 10% of the total Stellako re-route) and three ALR properties are overlapped by the existing portion of the FSR study area. There are a total of 69 active range tenures and three pending range tenures overlapping the NTLU RSA with 9 range tenure areas from eighth tenure holders overlapping the LSA.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Recreation	Back country hiking, camping,ATVing, etc along trails and recreation sites	Various - refer to NTLU Baseline Report appended to this application Figure 1 and 2 in Appendix 4E-1	On-going	Vatious	Various	n/a	Ongoing	Indefinite	The area overlapping the NTLU RSA is used year-round for a variety of recreational uses including all-terrain vehicle use (ATVing), snowmobiling, hiking, camping, cross-country skiing, horseback riding, fishing, hunting, interpretive cultural heritage experiences, and eco-tourism. There are several historically and culturally significant trails located within 20 km of the Project including the Alexander Mackenzie Heritage Trail, Messue Wagon Road, and Messue Horse Trail/Kluskus Bypass. The Alexander MacKenzie Heritage Trail passes 15 km south of the proposed mine site in an east-west direction. There is a non motorized recreational trail, the Messue Wagon Road, 13 km directly east of the mine site, running in a north-south direction, which will be crossed by the proposed fresh water pipeline from Tatelkuz Lake to the mine site. The Carrier Indian Trail route from the southeast, through the Chedakuz Valley to Cheslatta and north (used prior to the Nechako Reservoir development in the 1950s) is a continuation of the Messue Trail from the Messue Indian Reserve on the northwest end of Tatelkuz Lake. In total 14 forest recreation sites / trails are overlapped by the Project LSA.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
No	Yes	Recreation	Accommodation at lodges	Various - refer to NTLU Baseline Report appended to this application Figure 1 and 2 in Appendix 4E-1	On-going	Vatious	Various	n/a	Ongoing	Indefinite	Twenty-three commercial lodges fall within the NTLU RSA: - Crystal Lake Cabins (part of Crystal Lake Resort) are located approximately 3 km east of proposed transmission line and 60 km northeast from mine site. - Finger Creek Ranch is located <1 km from the FSR study area and 48 km from the mine site. - Finger Lake Resort is located approximately 2 km south of the FSR study area and approximately 50 km northeast of the mine site. - Tachick Lake Resort is located approximately 2 km east from FSR study area, approximately 88 km northeast of mine site. - Tatelkuz Resort is located on Tatelkuz Lake (where the water pipeline starts) < 2 km south of the FSR study area and approximately 8.5 km from the proposed mine site.  The remaining lodges are located at least 5 km from the nearest project facility / component.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Transportation	Traffic along Kluskus FSR	Various - refer to NTLU Baseline Report appended to this application Figure 1 and 2 in Appendix 4E-1	On-going	Vatious	Various	n/a	Ongoing	Indefinite	Miscellaneous traffic associated with recreational land use and other commercial / industrial activities in the area.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
No	Yes	Transportation	Airports, airstrips and aerodromes	Various - refer to NTLU Baseline Report appended to this application Figure 1 and 2 in Appendix 4E-1	On-going	Vatious	Various	n/a	Ongoing	Indefinite	Vanderhoof has two airports, including the Vanderhoof District Water Aerodrome (CAN9), located 22 km east at the north end of the existing FSR study area and the Vanderhoof Airport (CAU4), located approximately 4 km further east. Fraser Lake may be accessed by planes landing at the Fraser Lake Airport (CBBJ), located approximately 29 km west of the north end of the FSR study area, or at the Fraser Lake Aerodrome (CBZ9), located approximately 10 km north of CBZ9. Approximately 17 km (in a straight-line distance) to the south of the proposed mine site is the turf/gravel Tsacha Lake Airport (CAE4); 26 km southwest of the mine site is the Tsetzi Lake (Pan Phillips) Airport (CBT3), and 28 km west of that are the Moose Lake (Lodge) Airport (CAS2) and Moose Lake (Lodge) Seaplane Base (CBE8).	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Crown Land Tenures	Various	Various - refer to NTLU Baseline Report appended to this application Figure 1 and 2 in Appendix 4E-1	Active and pending						No registered Crown tenures overlap the mine site, mine site access road, airstrip or water supply study areas. Seven provincial Crown tenures licensed for agriculture, environment, institutional, quarrying and residential overlap the transmission line study area. Eight provincial Crown tenures licensed for environment/conservation/recreation, quarrying and residential overlap the Stellako re-route study area. No registered Crown land tenures overlap with the Mills Ranch re-route study area. Fourteen provincial Crown tenures licensed for agriculture, environment, industrial, quarrying, and residential overlap the FSR study area. The main transmission line study area and Stellako re-route both overlap 12 utility tenures. Three utility tenures are intersected by the FSR study area.	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC
Yes	Yes	Water Licences	Various	Various - refer to NTLU Baseline Report appended to this application Figure 1 and 2 in Appendix 4E-1	Active and pending						Two groundwater wells, both owned by the proponent, are registered within the mine site study area. Two groundwater wells are registered within the main transmission line study area. Two different groundwater wells are intersected by the study area for the Stellako re-route. Well ID 96878 (which is overlapped by the main transmission line study area is also overlapped by the FSR study area. Nine groundwater wells are registered within the FSR study area; five of which appear to be for private domestic use. Four current points of diversion (POD) are overlapped by the FSR study area. These PODs are all located near the northern end of the FSR study area (i.e. near Highway 16).	Yes	Yes	Yes Inclusion to be evaluated specifically for each VC

NLTU LSA	CEA Study Area (based on NTLU RSA)	Land Use Type	Project	Location	Status	Distance/ (km) and direction from Project	Developer / Company	Cost (millions)	Start	Finish	Description	Spatial overlap with Project	Temporal overlap with Project	Include in Cumulative Effects Assessment
<b>PROPOSED PROJECTS (as of November 2013)</b>														
No	Yes	Utilities	Nulki Hills Wind Project	Nechako Development Region: - 30 km south of Vanderhoof.	Pre-application stage in BCEAO process (commenced November 26, 2012). No info provided on Company website.	~ 60 km north / northeast of Project mine site. ~ 5 km east of the Kluskus FSR (at its closest point)	Innergex Wind Energy Inc.	\$45	Unknown. Preliminary Project Description filed with BCEAO indicates the following: Construction - summer 2015 to early 2017. Project Commissioning - summer 2017	Indefinite	Innergex Wind Energy Inc. (Proponent) proposes to develop and operate a wind power project with a nameplate capacity ranging from 105 to 210 megawatts. The proposed Project would be located in the Nulki Hills, 30 km south of Vanderhoof, British Columbia and includes up to 70 wind turbines. (BCEAO website - <a href="http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_391_35124.html">http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_391_35124.html</a> )  Pers. Comm (July 22, 2013) Mr. Nuno Louzeiro, Environmental Engineer Innergex Wind Energy Inc. Mr. Louzeiro indicated that although the Nulki Hills Wind Project was waiting for an Electricity Purchase Agreement to be set up the project was proceeding through the BCEAO process.	Yes - primarily from a transportation, social and economics perspective	Unknown Presumed that construction and / or operations will overlap with Blackwater Project	Yes Inclusion to be evaluated specifically for each VC
No	Yes	Utility	Fraser Lake Sawmill Biomass Project	Nechako Development Region: Fraser Lake	Permitting in process.	~ 80 km north of the Project mine site.	West Fraser Mills Ltd	\$20	Preliminary site preparation underway	Operation estimated to commence 2nd or 3rd quarter of 2014.	Proposed 12 MW (88 GWH/year electricity) plant will use sawmill waste to produce energy. Project selected to proceed in the Phase 2 Bioenergy Call for Power and has been awarded a BC Hydro Electricity Purchase Agreement. Proposed (April 4, 2011 - <a href="http://www.westfraser.com/investors/news/news-releases/west-fraser-announced-preferred-proponent-two-phase-ii-bioenergy-projects">http://www.westfraser.com/investors/news/news-releases/west-fraser-announced-preferred-proponent-two-phase-ii-bioenergy-projects</a> )  Pers. Comm. (July 22, 2013) Mr. Larry Hughes, VP, CFO, Secretary West Fraser Mills Ltd. Mr. Hughes indicated that the project was moving forward and that investors were being advised that project start-up was scheduled for Q2 - Q3 of 2014.	Yes - primarily from a transportation, social and economics perspective	Yes Construction - potentially, depends on schedule Operations - Yes	Yes Inclusion to be evaluated specifically for each VC
No	Yes	Utility	Coastal GasLink Pipeline Project	Northwest Development Region: Dawson Creek	Pre-application stage in BCEAO process (commenced December 11, 2012).	North of the Project minesite.	Coastal Gaslink Pipeline Ltd.	\$4,000	2015 according to the June 2013	2019	The proposed Project involves the construction and operation of an approximately 650 km long natural gas pipeline 1219 in diameter from near Dawson Creek in northeast BC to the proposed LNG Canada LNG export facility near Kitimat.	Yes - primarily from a transportation, social and economics perspective	Yes Construction - potentially, depends on schedule	Yes Inclusion to be evaluated specifically for each VC
No	Yes	Utility	Pacific Gas Looping Project	Natural gas transmission pipeline between Summit Lake, B.C. and Kitimat, B.C.	Pre-application stage in BCEAO process (commenced July 24, 2013).	North of the Project minesite.	Pacific Northern Gas Ltd.	-	-	-	The proposed Project involves the construction of approximately 525 kms of new 24-inch pipe, operating in parallel with the existing pipeline.	Yes - primarily from a transportation, social and economics perspective	Yes Construction - potentially, depends on schedule	Yes Inclusion to be evaluated specifically for each VC