



3 Study Areas

3.1 Regional Study Area

For the purposes of the Terrestrial Wildlife Baseline Report (TWBR), the boundaries established for the Regional Study Area (RSA) in 2010 will be used. The boundaries incorporate all of the proposed Project facilities at and west of Baker Lake including three proposed access road options (i.e., all local study areas [LSAs] described in the following sections), surrounded by a minimum 25 km wide buffer. The resulting RSA is 150 km long and 70 km wide, constituting a total area of 9,828 km² (see Figure 3.1-1). The RSA includes all of Judge Sissons Lake, the southern portions of Aberdeen and Schultz lakes, while Princess Mary Lake is located just to the south.

The spatial extent of the RSA was selected based on the anticipated mine plan for the Project, known caribou water crossing locations along the Thelon River basin (DIAND 1992), and critical areas identified by IQ studies (see Volume 3 of the EIS). The Kiggavik RSA is also comparable to study area sizes for caribou and other large mammals (i.e., muskox, grizzly bears, and wolves) for other mining projects in Nunavut and Northwest Territories (NWT) (i.e., projects such as AEM Meadowbank, Jericho, Doris North, Diavik and Gahcho Kué). The RSA also includes areas with similar conditions to those found in the Mine LSA and access road LSAs, which will allow the RSA to be used as a comparable reference area for monitoring potential changes as the Project moves forward.

3.2 Local Study Areas

The Local Study Area (LSA) at the mine site is centered on the Kiggavik and Sissons deposits with an approximate five kilometer buffer around all proposed Project facilities, including a proposed airstrip and site haul roads. Dimensions of the Mine LSA are approximately 29 km wide by 20 km wide, constituting a total area of 450 km² (Figure 3.2-1).

The access road LSAs include a five kilometer-wide LSA centered on all four of the proposed road alignments currently under consideration (see Figure 3.2-2), including two All-Weather Access Road (AWAR) alignments and two Winter Access Road alignments. The South AWAR has a total LSA of 535 km² and the North AWAR has a total LSA of 520 km². The Winter Access Road (South) has a total LSA of 561 km². The Winter Access Road (North), which is currently only considered as a partial segment connecting to other alignments, has a total LSA of 297 km². The South AWAR has recently been removed for further consideration as a possible access route to the mine. Other potential facilities within some of the road alignments include a dock facility at Baker Lake, a bridge/cable ferry crossing at the Thelon River, and potential quarry sites.