



MELIADINE TERRESTRIAL BASELINE SYNTHESIS REPORT - DRAFT

fens (Ecological Stratification Working Group 1995). Typical wildlife species include barren-ground caribou, arctic fox, weasel, arctic ground squirrel (*Spermophilus parryii*), willow ptarmigan (*Lagopus lagopus*), and Rough-legged Hawk (*Buteo lagopus*). Along coastal areas, Snow Geese (*Chen caerulescens*), swans, Canada Geese (*Branta canadensis*) and shorebirds are common, whereas various whale species and seals inhabit coastal water (Ecological Stratification Working Group 1995).

3.2 Local Study Area

The mine LSA boundary was defined by the expected spatial extent of the immediate direct (e.g., Project footprint) and indirect effects (e.g., dust deposition) from the Project on the surrounding vegetation. The mine LSA includes the Meliadine West site, F Zone pit site, and the Discovery Zone pit site. The LSA for the proposed mine sites was defined as the anticipated extent of direct Project effects (Figure 3-2).

The mine LSA habitat is characteristic of regional habitat conditions and vegetation within the Maguse River Upland Ecoregion. However, the mine LSA is located in a large area of "ribbed (rogen) moraine" that is characterized by a radiating esker-outwash systems and linear drumlin fields (Aylsworth and Shilts 1989). As a result, the major landforms in the LSA are dominated by a large esker that runs northwest/southeast and numerous drumlins or drumlinoid ridges. Ridge complexes on drumlins and eskers are characterized by a range of plant communities and associations depending on substrate, orientation, and snow accumulation, but are typically dominated by heath tundra and lichen-heath communities. Low-lying areas between the drumlins and eskers are dominated by sedge wetlands, shallow ponds, and various shallow and deep water lakes including Meliadine, Lake A8 (alternate name Pump Lake), Lake B5 (alternate name Bud Lake), Lake A6 (alternate name Peg Lake), and Lake B7 (alternate name Woody Lake).

The LSA for the all-weather winter road was defined by the expected limit of direct and indirect effects from the road on the surrounding vegetation and wildlife. The proposed all-weather road joins the Project to the existing winter road near Rankin Inlet and includes the road that leads to the Discovery Zone pit. The LSA for the all-weather road was defined by a 500 m buffer on either side of the anticipated right-of-way surrounding the proposed road alignment (Figure 3-2).

The LSA for the all-weather road contain vegetation and landscape terrain features that are typical of the regional conditions. However, the road is located primarily on high ground and tends to follow the ridge lines of eskers and bedrock outcrops. As such, vegetation tends to be dominated by heath tundra and heath lichen communities.

