

**PLAIN LANGUAGE SUMMARY**

EBA Engineering Consultants Ltd. (EBA) has been retained to complete a Phase 1 Ecological Assessment (EA) for three Tulita Conservation Initiative (TCI) Mountain Areas of Interest (herein referred to the Areas of Interest) as part of the Northwest Territories Protected Area Strategy (NWT PAS) Step 5 process. The NWT PAS is a system to assist communities, regional organizations, and/or land claim bodies through the process of identifying and establishing protected areas. Once areas are identified, reviewed, and evaluated formal establishment of a protected area is sought through appropriate federal and/or territorial government departments. These Areas of Interest include: 1) Keele River (Slavey traditional name (S̱ṉaraḻ) and Mountain River (Faʔfa Ṉḻne) Complex; 2) Ravensthoat River, Redstone River, and Drum Lake Complex (Tatsʔkʔáá ṉḻé); and 3) Red Dog Mountain (Ṯḻ Dehdele Ḏdḻ). All three Areas of Interest will be discussed collectively in this report, unless otherwise indicated. These Areas of Interest are located in the Tulita District of the Sahtu Settlement Area and cover approximately 25,600 km<sup>2</sup> (Figure 1).

The objectives of this Phase I EA were to determine the ecological value of the Areas of Interest, assess whether the Areas of Interest meet the NWT - PAS criteria, and whether or not the Areas of Interest possesses the necessary ecological attributes to pass through federal or territorial protected areas legislation (most specifically National Wildlife Areas (NWA) and Wilderness Conservation Areas (WCA)). Following the NWT – PAS, these objectives were achieved by identifying and evaluating available ecological data, and reporting deficiencies in existing ecological information to effectively delineate protected area boundaries. To meet these objectives, NWA and WCA territorial and federal protected area legislation and establishment criteria were discussed and evaluated in relation to the Areas of Interest. Further research required to delineate protected area boundaries (including corridors, buffers, and management zones) will also be recommended as future NWT - PAS Phase II work.

A study area (approximately 74,100 km<sup>2</sup>) was already defined for the assessment of the Areas of Interest to intentionally capture areas of importance or influence that may lie outside the Areas of Interest, including unique landscape features.

NWA and WCAs prohibit industrial development such as mining, oil and gas surface work, forestry, and power generation in core protected areas; however, industrial development may be permitted in portions of the protected area classified as buffer zones. All existing mineral claims are recognized and allowed to explore and develop mining resources under the NWT - PAS.

Current and future industrial development within the study area includes hydrocarbon development (coal, oil and gas), and mineral development. Currently within the study area, there have been 16 oil and gas wells, one of which occurs within the boundaries of the Keele River and Mountain River Complex, and coal leases exist in the Tate Lake area, adjacent the Red Dog Mountain Area of Interest, as well as two within (or partially within) the Keele River and Mountain River Complex (INAC 2007). In addition, there are 11 mineral leases within the study area, of which, eight occur within the Keele River and Mountain River Complex, and one within the Ravensthoat River, Redstone River, and Drum Lake Complex (INAC 2007).

NWAs are established under the Canada Wildlife Act and managed by the Canadian Wildlife Service (CWS). These areas are established for the purposes of conservation, research, and/or education, while still protecting wildlife and wildlife habitat, particularly for migratory species, species at risk and their habitats, and species and habitats under development pressures continent wide. WCAs are established under the Territorial Parks Act and managed by the Department of Industry, Tourism and Investment (ITI). Hunting is permitted within WCA boundaries for Aboriginals and non-Aboriginal hunting license holders; however, renewable and non-renewable resource development is prohibited under the Act. The Areas of Interest appear to meet both NWA and WCA establishment criteria for a number of reasons including, the Areas of Interest:

- Supports 11 vertebrate species with special conservation status and their key habitats;
- Includes areas that were important refuges during glaciation and are known to support rare endemic plants;
- Contains numerous critical wildlife areas, including mineral licks;
- Encompasses six areas with Special Conservation designations and three proposed areas;
- Borders eight existing Special Conservation areas (including transboundary conservation areas);
- Adequately represents landscapes within the ecoregion; and
- Includes a large enough area to help maintain biodiversity and accommodate natural disturbances.

Previous research within the Areas of Interest have targeted hydrology, vegetation, woodland caribou (both boreal and mountain ecotypes), Dall's sheep, grizzly bears, raptors, breeding birds, and fish within select parts of the study area. Little other research has currently been completed in 2006 or proposed to occur in the future to assess additional ecological values. Of particular importance to the establishment of a protected area under the NWT – PAS and NWA criteria, little to no information is available for the distribution, abundance, and important habitats of species with special conservation status (including rare plants), as well as migratory birds, unique/uncommon habitats, and general biodiversity.

Data deficiencies most relevant for the effective delineation of the Areas of Interest boundaries include critical wildlife areas, and all unique or uncommon landscape features (including mineral licks). The area most deficient in data is the Red Dog Mountain Area of Interest. To date, no ecological information has been identified for this area.

When contemplating boundaries for protected areas, a number of attributes of the Areas of Interest must be evaluated, including but not limited to, the presence of species that have special conservation status, and/or those that are area limited, dispersal limited, resource limited, process limited (definitions of these are provided in Section 4.0), presence of species sensitive to human developments, ecoregion representivity and core representative areas, and the size and configuration of the protected area. Based on current knowledge of the VECs within the Areas of Interest, existing boundaries and the size of the Areas of Interest (when considered collectively) are

considered appropriate to protect most of the valuable ecosystem components outlined in this report.

Because of the existing configuration of the Areas of Interest, strong supporting management options are recommended outside the boundaries of the Areas of Interest such as corridors, buffers, and/or management conditions. However, based on limited ecological information on the study area, specific corridors, buffers, and/or management conditions can not be determined at this time.

Based on known scientific information, and current and future research objectives in the study area by other agencies, a number of ecological deficiencies are considered critical and additional information is required. To contribute to the application as a National Wildlife Area or Wilderness Conservation Area and delineate boundaries of the Areas of Interest, a number of the data deficiencies must be filled in. Priority field research (to be conducted within the next two years) should focus on the presence of species with special conservation status (including rare plants), as well as migratory birds, unique/uncommon habitats, general biodiversity, and critical wildlife areas. Field research recommended within the Areas of Interest include systematic plot sampling proportional to available habitat types, as well as breeding bird surveys, and rare plant surveys.

Obviously species do not recognize boundaries of protected areas; therefore, more flexible management options, such as corridors, buffer zones, and/or other special management options should be considered outside the Areas of Interest. However, since little information exists on distributions and key habitats for species requiring large tracts of land, those with special conservation status, and/or those that are less resilient to human disturbances within the study area, it is difficult to specify areas requiring further management options. Systematic plot sampling, proportional to available habitat types, to record landscapes (*i.e.* slope, aspect, and landforms), vegetation, and species presence (including visual and auditory observations, pellets, scat, nests, tracks, and trails) are recommended throughout the study area (outside the Areas of Interest), particularly at areas identified as IBP sites, Wildlife Areas of Special Interest, Environmentally Significant Areas, and Wildlife Conservation Areas (refer to Figure 16a), as well as high conservation areas identified during the ecological representation process (Section 5.1).