

## **EXECUTIVE SUMMARY**

Since time immemorial, Buffalo Lake, and the surrounding area, has been a significant traditional land use area for the K'atl'odeeche First Nation (KFN) of Hay River, Northwest Territories. Due to its value as a traditional hunting and trapping area, the community would like to protect the area from potential development so that future generations may utilize and enjoy the land of their ancestors. Most KFN members believe long-term protection of the area is the best route to take in achieving this goal (KFN 2006).

The Protected Areas Strategy (PAS) is a process for making decisions to protect lands using the best available knowledge, and provides an effective community-based tool for advancing culturally and ecologically significant areas towards long-term protection. The PAS outlines a series of eight steps for the planning, establishment, and management of protected areas. An integral component of the process is a detailed evaluation of the area's ecological, cultural, and economic values. The purpose of this Phase 1 Ecological Assessment is to compile, review and analyse all available ecological information related to the Buffalo Lake area. This process has included two main activities: informal interviews with local and regional experts and a thorough literature review. Existing information sources were assessed for quality, information gaps were identified, and recommendations for further research are provided.

The study area is located within the northern boreal forest and is situated in a relatively low-lying area dominated by lakes, rivers and wetlands. The study area is bounded by the Alberta / NWT border to the south and includes part of Wood Buffalo National Park (located to the east). Ecological research in the vicinity of the study area is relatively limited. The most detailed vegetation and wildlife information is provided by broad-based studies or research linked with industrial development. Information on soils is of a relatively coarse scale and the duration of hydrological records is inadequate for making environmental predictions and as a baseline for change. Disturbance regimes within the local ecosystem are understudied.

On the basis of ecological value, several options exist for the establishment of a protected area in the NWT. These include national parks and reserves, national wildlife areas, territorial natural environment parks and territorial wilderness conservation areas. Further discussion between natural science researchers, industry and other potential stakeholders needs to take place. Support for existing research programs in the Buffalo Lake area should be offered. Specifically, a comprehensive wildlife survey at the mouths of the Yates and Whitesand Rivers; surveys for rare wildlife species; a waterfowl / bird survey; and research to clearly identify inconnu spawning locations, needs to occur before an "ecologically appropriate" protected area boundary can be finalised.