

## Chapter 4—Resource

### **Concentration of current uses**

The concentration of current uses was also assessed, with GIS used to inventory their locations. In some cases the GIS coordinates were entered based on a description of the area provided by the respective user; in other instances the physical feature (e.g., trail, research plot) was recorded using Global Positioning Satellites (GPS).

- Activities that pose threats to the research
- The timeframe, historic and future, of the research
- The principal investigator (PI) and their contact information

Research support information includes:

- Contour lines
- Arboretum boundaries, vegetation classification, multi-band aerial image circa 1978, aerial image circa 1948
- Location of trails, including informal trails
- Areas used for education
- Visual bands aerial image, circa 2002

There are over twenty identified research projects currently operating in the area, including studies of soil temperature, forest growth, micro-meteorology, moss growth, forest litter decomposition, infra-sound, permafrost, and wildlife. While more details of these studies are contained in the research database, the specific place is not identified for confidentiality reasons. Although research occurs throughout the NC, there is a heavier research concentration in the Arboretum, the T-Field and Potato Field, and the Smith Lake area.

**FIGURE 4.2**—Reported areas used for research on North Campus



**FIGURE 4.3**—Reported areas used for UAF classes

Education areas identified through an email survey conducted spring 2002 by Holloway and follow-up by Hay, fall 2003.



## Education

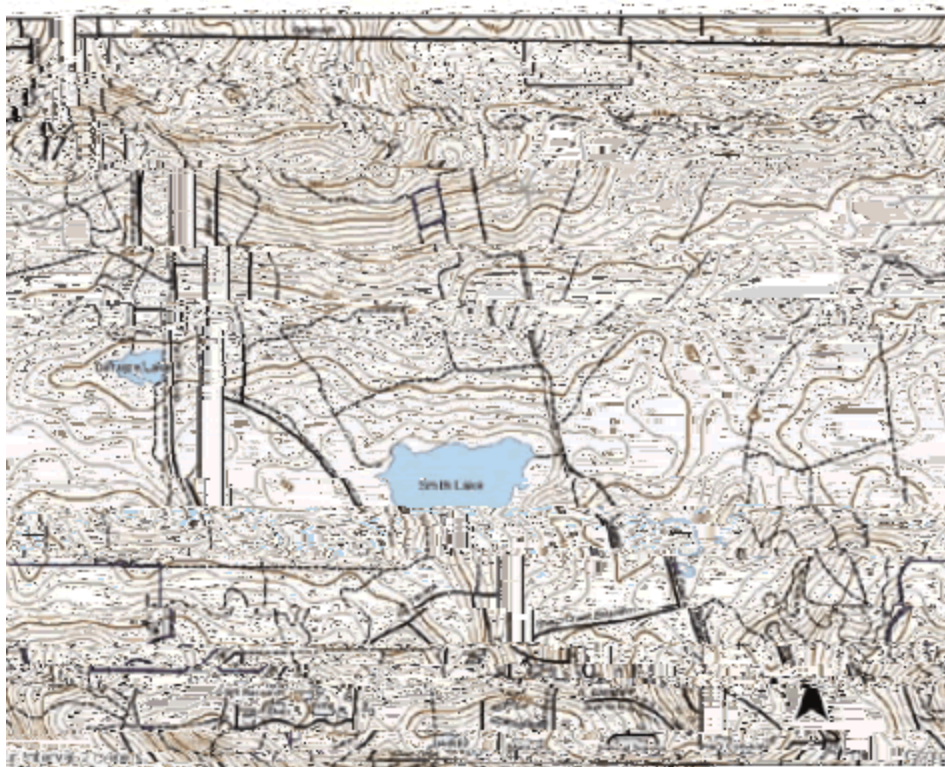
Educational uses, including UAF work as well as non-credit, school district, or community-based activities occur on a regular basis throughout the area. The majority of the education use is concentrated out from the West Ridge area toward the Arboretum and Smith Lake; however, the Ballaine Lake area receives significant use as well.

**FIGURE 4.4—Roads and Utilities on North Campus**

There are 3.8 miles of roads on North Campus, which are authorized for "any non-motorized use and authorized vehicles," and constructed to varying Department of Transportation standards. In addition, there are several areas on North Campus where power transmission lines exist.



FIGURE 4.5—Topographical Map of North Campus



## Topography and Soil Conditions on North Campus

The topography of NC includes a broad east-west bottom land between Smith Lake (west side) and Ballaine Lake (east side), with a northerly aspect slope that declines to the bottom land from the main campus and a southerly aspect slope that leads up to the north border (maximum elevation of 250 m) along Yukon Road. No slopes in NC are as steep as those of the main campus south of Yukon Drive. Significant portions of the low-lying land between Smith and Ballaine Lakes are often wet and virtually impassable in spring and summer, and sometimes until freeze-up in fall. Soils are classified as Minto, Fairbanks, and Goldstream silt loams (USDA Soil Conservation Service, Alaska Agricultural Experiment Station 1963). Frost-action susceptibility, engineering properties, and other characteristics for each soil type are provided in Appendix I. The Natural Resource Conservation Service is in the process of updating and digitizing the Fairbanks Soil Survey. When that is completed it will be included in the GIS database. There are no reliable maps showing current wetland areas or permafrost coverage for the NC.

FIGURE 4.5  
Topographical Map of North Campus

## Recreation

The NC is used during all seasons for a variety of uses, including cross country skiing, running, walking, biking, wildlife viewing, mushroom and berry picking, horse-back riding and nature studies.

FIGURE 4.6—Map of summer trail use.



Although recreation takes place throughout the NC, there is a heavy concentration of winter recreation use in the southwest corner of the NC, along the T-Field road and around the T-Field. This area has a high concentration of trails, and all of the lighted trails are in this area. The Ballaine Lake area also has a high concentration of summer use from fishing.

### **Special management areas**

There are several areas within the NC, which have their own management structures:

- The Arboretum including the Exotic Tree Plantation, T-Field and Potato Field, is under the management of the director



- the UAF Experimental Farm and Georgeson Botanical Garden border the NC, receive high visitation in the summer, and encourage use of the North Campus trails. Future management plans of either entity that would increase or change use in the NC should be considered by the NCS.
- the UA Museum of the North, attracts high visitation to the University, and hence influences use of the NC. Museum plans that may result in increased use of the NC should also be considered.
- the proposed open space east of the museum that will highlight Alaska Native heritage and art, if implemented, will be integrated with the NC by connecting trail systems. Use and management direction of the open space will influence the NC, so management plans will also be considered by the NCS.

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