11. SOCIAL, EDUCATIONAL, AND CULTURAL VALUES AND GOALS

11.1 Cultural Heritage Resources and Histories of Land and People

Cultural heritage resources, as defined by BC legislation and regulation, address cultural resources as they pertain to aboriginal people.

The Aleza Lake Research Forest will manage and protect known cultural and heritage resources in a manner consistent will the *Heritage Conservation Act*, the *Forest and Range Practices Act*, and the *Forest Planning and Practices Regulation*.

ALRF objectives for cultural and heritage resources are to conserve, and as necessary, protect identified cultural heritage resources or features on the ALRF landbase that are the focus of traditional use by an aboriginal (indigenous) people, and that are of continuing importance to that people.

The ALRF Society commits to engagement and information-sharing with the Lheidli T'enneh First Nation regarding proposed timber harvesting and road-building activities on the ALRF, in order to ensure that cultural heritage resources and areas of importance or significance to indigenous people are identified, respected, and protected. Where appropriate, the ALRF work with the Lheidli T'enneh to develop tools, knowledge, and resources to facilitate this process.

In addition, the ALRF supports more broadly the documentation and conservation of the history of local communities and their surrounding forest, both on the ALRF landbase or in its environs including the nearby Upper Fraser Valley. Of particular interest to the ALRF will be the "Big Bend of the Fraser" geographic area from the communities of Shelley and Willow River in the west to the Hansard Bridge and Upper Fraser in the east, and southward to the Bowron River. Such support will be in collaboration with regional agencies such as the UNBC Archives.

11.2 Research and Education Objectives

Research and education is the central objective of the Aleza Lake Research Forest, and this is directly referenced four times within the provincial permit (SUP 23615) for this area:

- a) The Aleza Lake Research Forest is an area of Crown Land permitted for land management oriented to "educational and research purposes" (Section 1.01).
- **b)** The management plan must contain "general research and educational strategies and approaches within the permit area" (Schedule A, Sect. 3.01(a)).
- c) "Undergraduate and graduate student training will be facilitated by activities on the Research Forest." (Schedule B, Sect. 1.04). And,
- d) "(T)he Research Forest will be managed to facilitate research and teaching in a wide range of topics of interest to natural resource management." (Schedule B, Sect. 1.05).

Key strategies for facilitation of forest research opportunities at the Aleza Lake Research Forest include provision of:

- Supporting ALRF staff resources, and services for the protection, management, and coordination of field research installations and activities on the landbase. And,
- ALRF infrastructure to deliver forest and environmental education opportunities at the Aleza Lake Research Forest including several educational trail networks, the Aleza Field Education Centre, and the all-season forest road network.



(ABOVE) ALRF summer student staff gain work experience in a wide range of natural resource management issues

(BELOW) ALRF roads and interpretive trails provide excellent access for local recreation, educational groups, and community events

Strategies to manage ALRF educational and research resources are detailed below.

Educational Trails

Strategies for management of educational trails at the ALRF are detailed in this management plan under the Forest Recreation section.



Field Research Installations

The management strategies for research sites at the ALRF are:

- 1. To maintain a current inventory of all known active and inactive research sites on the ALRF.
- 2. To manage forest operations within or around active research sites for the duration of the project by:
 - **a)** Minimizing or preventing impacts of logging activity or other forest operations on active research sites through comprehensive research site inventories.
 - **b)** Coordinating forest operations with researchers in specific areas to implement or maintain a desired set of experimental treatments, and research or monitoring objectives.
 - c) Providing direct or indirect support of research infrastructure (e.g., site maintenance, road access).
- **3.** To avoid or minimize uncontrolled and undesirable disruption of long-term field research, for the duration of active research, by:
 - **a)** Consulting with researchers on planned or pending forest operations activities within or around research sites.
 - **b)** Minimizing external forest operations activities that would increase windthrow, fire, and pest risk in or near the site. And
 - **c)** Avoiding changes to site drainage and soil characteristics near research sites (e.g. during road construction or harvesting).





UNBC researchers Dr. Bill McGill and Mike Rutherford, and ALRF Manager Mike Jull review a research site for application of wood ash

UNBC research assistant assesses biodiversity in an old-growth stand

The nature and types of field research sites on the ALRF are extremely diverse, ranging from long-term, continuous monitoring at certain research sites, to use of ALRF sites for temporary sampling or data gathering. Appropriate management strategies will be flexible and site-specific to reflect this range of objectives and research requirements. Appropriate management strategies will be determined by ongoing communication with principle researchers to determine research objectives and circumstances that will successfully integrate ALRF forest operations with each research site.

Table 7 provides examples of suggested ALRF management strategies around or adjacent to forest research projects at the ALRF.

Table 7: Examples of types of field research installations, and potential management strategies

Type of installation	Duration	Open or Closed Forest Conditions required?	Early or Late Seral Forest Conditions required?	Segregate from, or incorporate with surrounding forest management?	Recommended Buffering
ALRF climate station	Permanent	Open field conditions	Early	Segregate	100 m
Long-term permanent GY plots (old-growth)	Permanent	Closed forest	Late seral	Segregate	60-80 m
Forest carbon monitoring plots	Temporary or periodic	Wide range of conditions	Wide range of conditions	Incorporate	None
Fertilization study	At least 20 years	Closed forest	Early-mid seral	Segregate	Min. 30 m
Vegetation diversity sample plot	Temporary	Wide range of conditions	Wide range of conditions	Incorporate	None
Shelterwood trial	10-25 years	Range of treatment conditions	Range of treatment conditions	Segregate for duration of trial	Min. 30 m





(ABOVE) The Aleza Field Education Centre, completed in Fall, 2015 (TOP RIGHT) Construction of the Field Centre commenced in Summer 2014 and was completed in 2015 (RIGHT) Field Centre facilities provide opportunities for field-oriented courses, workshops, and retreats

Aleza Field Education Centre:

The Aleza Field Education Centre is a 1,200 square-foot (or 112 square metre) teaching and interpretive centre of log-and-timber construction, located at the UNBC Aleza Lake Research Forest. The Field Centre building is permitted by the Province under an Addendum to SUP 23615. The Aleza Field Education Centre building and associated structures are owned and managed by the Aleza Lake Research Forest Society.

The Field Centre, officially opened in May 2016, is designed to host field courses, meetings, retreats, training, and community events. The Field Centre is an outdoor-oriented learning centre, social gathering place, and logistical and organizational hub for events at the Aleza Lake Research Forest. The Centre may provide some overnight accommodations for approved users, when needed.

The area of the ALRF immediately surrounding the Aleza Field Education Centre (about 150 hectares of land, approximately bounded by Hansard Creek to the south and west, the Aleza FSR to the east, and Ridge Road to the north) has very high value for field education and demonstration, due to its physical proximity and adjacency to the Field Centre and surrounding trail network.

11.3 Forest Recreation

Objectives set by Government

At time of preparation of this plan, no Interpretive Forest Site, Recreation Site or Recreation Trail, or related Objectives have been established by the Province within the ALRF landbase. One Recreation Reserve is legally designated by the Province near the Bowron River within the ALRF. The ALRF will comply with any Recreation Objectives that may be established by the Province in the future.

ALRF Educational Trails

The Aleza Lake Research Forest Society maintains, establishes, and periodically modifies a network of educational walking trails on the Research Forest on an ongoing basis, as part of regular forest education activities consistent with this plan. Many of these trails are marked with signs and trail markers, and, due to their location on Crown Land, are accessible for use by the public for non-motorized recreational purposes. Educational trails on the ALRF are managed by the Society but can be used by the public only at their own risk.

The ALRF Society as permit-holder may modify or vary the location and/or design of these educational trails from time to time at their discretion, to meet educational goals, address anticipated user safety issues, or to minimize environmental impact. The Society maintains a digital / GIS record of current trail locations, and will provide such information to the Province as needed and upon request.

11.4 Scenic Areas and Visual Resource Management

Forest operations under this management plan will be consistent with the 2005 *Order Establishing Scenic Areas for the Prince George Forest District*, including recommended Visual Quality Objectives (VQO's), Visual Quality Class and Visual Sensitivity Class, as may be amended from time to time. A portion of the ALRF along its northern boundary is within the *Giscome Highway Scenic Area* identified within this order.

Additionally, the Prince George LRMP (Government of BC, 1999) provides direction related to land use and visual quality, advising plan users to "avoid square or rectangular cutblocks and linear boundaries to minimize visual impacts on dominant views and within scenic areas."

The planning of primary forest activities on the portions of the ALRF within the Giscome Highway Scenic Area will include visual impact assessments (VIA's). For purposes of VIA's under this plan, primary forest activities include timber harvesting, new road construction, and related operations. A VIA is an evaluation carried out to consider whether, and demonstrate that planned timber harvesting or road operations will be consistent with the established visual quality objective for



A winter day at the forest

a scenic area (i.e. – consistent with the recommended visual quality class or established Visual Quality Objectives set by government). The VIA will consider the visual effects of the planned operation on the landscape from a range of relevant viewpoints during the planning process.

Primary forest activities within this Scenic Area will incorporate strategies that consider and mitigate visual impacts from major viewpoints along the Giscome Highway Scenic Area (Upper Fraser Road) and Aleza Field Education Centre building viewpoints, by incorporating into cutblock and/or road design one or more of the following approaches:

- irregular boundaries or edge treatments to avoid strong or abrupt high-visible rectilinear boundaries within the viewscape.
- creation of boundaries that follow natural landscape features or contours. And/or
- canopy or structural retention via dispersed patch cutting, partial cutting, or variable retention treatments, where ecologically and silviculturally appropriate and technically feasible.