

# STUDY METHODOLOGY

## General Approach

The selected methodology was one that focused on the key policy questions relevant to the application of the *Wilderness Protection Act* (the Act), specifically including an analysis of the socio-economic values that are identified with respect to the purposes of the Act, prohibited activities, and activities that may be considered for issuance of a license under the Act. The general approach was to provide an analysis of the values that may be impacted due to the change in the management of land uses that would be associated with designation of a Wilderness Area.

It was recognised that traditional methods of economic impact analysis do not permit the consideration of many socio-economic values. In addition to the bias against non-market activities, economic impact analysis also ignores opportunity costs. In other words, alternative uses of natural resources, the potential for other economic development opportunities, or the role of longer-term adjustments to employment and the structure of the economy are implicitly excluded from consideration.

However, use of a broader ecological economic approach in this study provided a more complete accounting of the values and the changes that can be anticipated with Wilderness Area designation. The ultimate goal was to provide sufficient information to begin to identify impacts and explore management alternatives.

## Stage I - Literature and Document Review

The desktop research component to the project consisted of reviewing existing literature and secondary data sources. This included background materials related to Nova Scotia's designated Wilderness Areas and the study sites provided by NSDEL. Other key information and data included those made available by other provincial agencies (*e.g.*, information related to recreation, tourism, forestry and mining activities), municipalities, and stakeholder organisations. In particular, it was important to examine any records and reports related to the activities of user groups. The collection of relevant literature and secondary data was closely linked with the interview component of the research (see below).

## Stage II - Interviews

To supplement the information that was provided by secondary sources, it was important to gather additional information on uses and values associated with the study sites. Key stakeholders were identified and contacted. These key informants were selected because of their direct involvement in local activities, being a representative of a stakeholder group with a specific interest in the study area, or because of their specific knowledge of the area. The task required the co-operation of the organisations and individuals – where such co-operation was not readily forthcoming, the analysis was restricted according to the deficiencies in the available information.

For the socio-economic overview of the candidate Wilderness Areas, it was desirable to provide a description of the characteristics of the uses of the area (*i.e.*, types of use, user groups and stakeholders involved, extent of use, use patterns, user perceptions and qualitative values) and to develop a specific profile of the economic values for key socio-economic value categories. Key informants were asked specific questions using a semi-structured interview guide. Questions focused on describing:

- The individuals and organisations;
- The types of activities;
- The frequency and extent of use;
- Spatial use patterns;
- Dependency on the areas;
- Perceived values of the areas; and
- Perceived impacts and management issues.

### **Stage III - Socio-economic Valuation**

The study accounted for a comprehensive range of social, ecological and economic values. This included both marketed and non-marketed commercial and individual values, including ecosystem service values, associated with the current uses of the study areas. Quantitative and qualitative values were described, including narrative descriptions of value.

Monetary economic value estimations relied on: 1) market-based values; and 2) benefits transfer using the results of other published studies. For benefits transfer, estimates were derived from the literature, as they could be reasonably applied to the Nova Scotia context. The benefits transfer methodology was in keeping with established, standard practice. In essence, this involved the application of economic information derived from another, similar site to the study areas in question. Benefits transfer is a practical means to evaluate policy impacts when primary research is not possible.

Qualitative-based research produces findings not arrived at by means of statistical procedures or other means of quantification (Strauss and Corbin 1990) and was an important component of this study. The realm of emotions, spirituality and individual experiences are often best captured beyond numerical quantification through qualitative descriptions, narratives, the re-counting of individual experiences, or perception-based information (Siedman 2003). Qualitative research methodologies and data collection contribute to the field of valuation by establishing what the meaning of a phenomenon is from the view of the participants (Creswell 2003; Glickson, 2003).