

Shuswap Trails Environmental Screening and Adaptive Planning: Principles and Key Concepts Summary Sheet

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The *Shuswap Trails Environmental Screening and Adaptive Planning* approach is a process designed to:

- Assess potential environmental impacts of proposed activities during early planning stages
- Ensure that federal and provincial legislation/standards are consistently followed
- Inform decision making (maps of trail network in relation to ecological information)
- Apply science-based understanding of species and habitats in a practical adaptive management approach

The Goal: to coordinate baseline information with protective legislation and guidelines that build effective mitigation and monitoring commitments into long-term adaptive management trail plans.

Principles

The following principles anchor the foundation of the Environmental Screening and Adaptive Management strategy:

- All land management decisions result in some level of impact
- Determining whether impacts are within acceptable limits is a challenge for managers and decision makers
- Scientific assessments of risks and significance of impacts provide managers and decision makers with tools to make the best decisions
- Predicting impacts and determining the significance of impacts should be as objective and quantifiable as possible
- Scientific research, legislation, guidelines and best management practices provide the primary direction for determining acceptable limits of impact
- Determining whether impacts are acceptable is based on both science and values and therefore always entails some level of subjectivity or compromise
- For many of these decisions, public involvement is essential to: determine values and their significance, understand the trade-offs or compromises that will result, and build support for the decision

Key Concepts:

The following are core concepts to be applied when developing Adaptive Management plans for Shuswap Trails:

- ***Adaptive Management Planning*** – a structured process to guide land management decision-making where the outcome of an action or actions on an ecosystem is uncertain. It includes setting limits of change, ongoing monitoring and adaptive responses over time.
- ***Acceptable Limits of Change*** – a model used within Adaptive Management Planning that acknowledges change is inevitable, identifies where impacts might occur, determines levels of change that are acceptable, and acts to ensure change remains within these bounds. (Shuswap Regional Trails Strategy, 2016)

- Cumulative Effects – the changes, both benefits and liabilities, caused by our actions today in combination with other past and reasonable foreseeable human and natural disturbances. (Shuswap Regional Trails Strategy, 2016, p. 31)
- Habitat Disturbance & Compensation – where a known disturbance to existing habitat is made, an equal or greater compensation in restored habitat elsewhere is applied with the intention of balancing or reducing the overall net impact on the wider ecosystem by the original disturbance.
- Precautionary Principle – a risk management principle stating that if an action or policy has a suspected risk, but there is no scientific consensus on the potential harm the risk may produce, actions should be taken before harm occurs to avoid or diminish the risk until such time as scientific analysis and consensus suggests otherwise. (See: UNESCO 2005)

Adaptive Management Planning:

The logic and language of the adaptive planning process is based on the provincial Wildlife Guidelines for Backcountry Tourism/Commercial Recreation in BC. The adaptive management plan includes the following components:

- Results – What the adaptive management plan is attempting to achieve
- Desired Behaviours – Actions by users that are most likely to achieve the specified results
- Indicators – What should be measured to determine if the results are being achieved
- Limits – Acceptable bounds related to the measured indicator
- Mitigation Measures – Strategies to achieve the desired behaviours
- Monitoring Schedule – Frequency and timing of monitoring indicators
- Corrective Actions – Actions triggered if monitoring suggests that indicators have exceeded limits

The Trails Environmental Screening Tool (T.E.S.T.):

The *Shuswap Trails Environmental Screening Tool* (T.E.S.T.) is a series of templates and checklists in PDF format that gather web-information on environmental conditions, and current and historic land use.

By first describing a trail and its intended uses (DESCRIBE) and describing the environment, plants and animals (MAP & ASSESS) trail planners can then design and plan the ideal ways to minimize any negative impacts (MITIGATE).

Decision guidelines help answer the question “What level of environmental review is required?”

An *Environmental Mitigation Matrix Table* provides a quick glance summary of the most common environmental conditions to consider and corresponding monitoring and mitigation strategies.

A summary of *Legislative Guidelines* provides additional links and resources.

For a link to the T.E.S.T. template and other *Shuswap Trail Design and Planning Tools*, visit:
<http://www.shuswaptrailalliance.com/aboutus.php?p=standards>

For a link to the *Shuswap Regional Trail Strategy*, visit:
<http://www.shuswaptrailalliance.com/aboutus.php?p=strategy>