

A Strategy to Manage Backcountry Recreation in Relation to Wildlife and Habitats

Version 1.3

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Executive Summary

The BC Ministry of Environment (MOE) is currently engaging commercial backcountry recreation operators and Land and Water BC in a review of the *Interim Wildlife Guidelines for Commercial Backcountry Recreation in British Columbia*. A public consultation report suggested that the *Interim Guidelines* enjoyed little support among tourism operators because the guidelines were considered impractical, not results-based, and inconsistent with the experiences of operators. In addition, environmental/recreation groups questioned the commitment of government ministries and agencies to enforce the guidelines.

This strategy provides a broad framework for managing backcountry recreation in relation to wildlife and their habitats. The strategy is driven by a simple intent:

To ensure that recreation activities in the backcountry do not affect the current distribution of wildlife, the sustainability of their populations, or the integrity of their habitats.

The management intent establishes a scope for the strategy that is considerably broader than the *Interim Guidelines*. First, the strategy is intended to apply to all backcountry recreation users, both commercial and public, and; second, the strategy applies to habitats as well as to wildlife.

The strategy recognizes three broad policy tools that can be applied to different management situations, depending on the ecological risk associated with a particular backcountry recreation activity. These tools are:

1. Prohibition – activity not allowed in specific areas or during specific periods of the year
2. Limits on inputs – activity allowed but quotas applied to the number of users or their activities
3. Limits on outcomes – activity allowed within the context of activity-specific matrices of backcountry-recreation guidelines

Matrices are expected to guide the development of operational plans by operators and are specific to different classes of recreation activities (e.g., non-motorized winter, boating) and habitats (grassland, alpine/tundra, freshwater, foreshore and forest) and consist of:

1. Issues categories:
 - a. Degradation of soil, air and water quality
 - b. Integrity of vegetation communities
 - c. Direct disturbance of wildlife
 - d. Integrity of Fisheries Resources
 - e. Special management related to species of concern, specific habitat features, critical seasons, etc.
2. Desired “results” with respect to wildlife and their habitats
3. “Desired behaviours” that outline the practices of users that are most likely to achieve desired conditions
4. Indicators that measure whether a desired condition is being achieved
5. Limits that set the upper and lower bounds around indicators

The strategy recognizes the importance of monitoring the results of backcountry recreation management and recommends 5 levels of monitoring that correspond to different levels of ecological risk and available resources.

The strategy addresses many concerns raised by stakeholders with respect to the *Interim Guidelines*. The guidelines are presented in the context of a technical rationale, but are logically presented by activity, habitat, concern, desired results and behaviours. In addition, the guidelines are being developed in full consultation with stakeholders and are intended to apply not only to commercial operators but to all users of backcountry resources.

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Introduction

The BC Ministry of Environment (MOE) is currently engaging commercial backcountry recreation operators and Land and Water BC (LWBC) in a review of the *Interim Wildlife Guidelines for Commercial Backcountry Recreation in British Columbia* (hereafter *Interim Guidelines*; WLAP 2002). The scope of the review is not only to review the guidelines for their adequacy in protecting the wildlife resource, but also to examine the guidelines in the broader context of managing interactions between recreation and wildlife (and their habitats) in general, and to examine alternative models to the current structure of the guidelines.

In the context of the review, this report proposes a strategy for managing backcountry recreation in relation to wildlife and habitat on crown land. The strategy is focussed on commercial operators tenured under the Land Act; however, it is intended to apply to all backcountry users.

Situation Analysis

Interim Wildlife Guidelines for Commercial Backcountry Recreation in British Columbia (WLAP 2002) were developed during 1999-2000, first in the Kootenay region and then for the entire province, to address potential impacts of commercial backcountry activity on wildlife. A public consultation process was completed in 2001 (Brown 2001). The *Interim Guidelines* provided a detailed review of current knowledge (scientific and management literature, opinion) regarding the effects of backcountry recreation activities on wildlife species. The document also outlined strategies to mitigate negative effects.

Effects of Recreation on Wildlife

The *Interim Guidelines* are premised on the assumption that recreation activities can have detrimental impacts on wildlife. In general, effects of disturbance on wildlife can be categorized as (Wilson and Shackleton 2001):

1. **Short-term acute:** obvious, immediate changes in behaviour in response to a stimulus.
2. **Medium-term chronic:** changes in behaviour (over days to months) that minimize the probability of encountering the stimulus in the future. This is manifested in temporary or permanent changes in range use.
3. **Long-term demographic:** changes in behaviour that lead to declines in populations. These can be behaviours that make animals more susceptible to predators, that reduce opportunities for mating, or that adversely affect the viability of offspring.

Several reviews of the relevant scientific and management literature have been completed. Joslin and Youmans (1999) reviewed the effects of recreation on wildlife found in the Rocky Mountains. Wilson and Shackleton (2001) reviewed the disturbance literature with emphasis on effects on wild ungulates. More specific literature reviews have examined recreation effects on shorelines and waterways (Birchland Heights Enterprises 2002), recreation effects on birds (Bennett and Zuelke 1999), disturbance of waterfowl (Dahlgren and Korschgen 1992) and the effects of military noise on wildlife (Larkin 1996).

In general, short-term, acute responses have been the focus of most studies and are best understood. Variation among individuals in response to human-related approaches is common among species, and in general, behavioural responses increase with the intensity of the activity and with closer approaches. Far fewer studies have identified range abandonment or demographic declines in response to disturbance. To our knowledge there have been no studies that have linked short-term, acute behaviour changes to longer-term consequences. That is, animal responses are relatively easy to measure, but assessing the longer-term risks related to different levels of responses is not.

Perceptions of User Groups

The consultation report (Brown 2001) identified key differences between the tourism sector and environmental /recreation groups regarding their perception of the *Interim Guidelines*:

- There was no support from the tourism sector for the guidelines as currently drafted, while environmental/recreation groups generally supported them
- The tourism sector was largely in favour of best management practices while environmental/recreation groups wanted regulations
- There was frustration and suspicion expressed by both groups regarding the application of guidelines in tenure management plans, but for different reasons. The tourism sector felt that the guidelines as drafted were onerous and unnecessarily complex and would not achieve objectives, while environmental/recreation groups questioned the commitment of government ministries and agencies (notably LWBC) to enforce measures to protect wildlife.

Structure and Application of Interim Guidelines

There are a number of criticisms regarding the structure and application of the *Interim Guidelines* as drafted:

- The guidelines are not considered “user-friendly” because
 - They require operators to collate a large amount of information in order to apply guidelines to their specific area
 - There are conflicts among guidelines for different species
 - Non-technical readers cannot distinguish between the “must do” and “could do”
 - The guidelines offer a confusing mix of objectives and prescriptions
 - Many guidelines are unrelated to recreation activities
- Guidelines apply only to tenured commercial operators, although other users might have similar impacts
- Guidelines are very prescriptive despite uncertainties regarding the consequences of recreation-wildlife interactions
- Guidelines were developed without the direct input of operators, who suggest that the guidelines are impractical, not results-based, and are inconsistent with the experience of operators (Brown 2001)
- There is no consistency in the application of wildlife guidelines in tenure management plans:
 - New operators are often held to higher standards than existing operators
 - The WLAP (2002) *Interim Guidelines* are incorporated in some management plans but not others
 - Each tenure application is considered independently with respect to wildlife issues
- Management plans associated with tenure agreements (approved through LWBC) are currently the main vehicle for specifying operating guidelines with respect to wildlife; however: enforcement of management plan components dealing with wildlife is currently negligible (no clear roles and responsibilities for LWBC and MOE; difficulty in utilizing guidelines)

Broader Strategic Issues

There are also broader strategic issues that have implications for the management of recreation in relation to wildlife and habitats that are outside the scope of revised guidelines:

- Commercial backcountry recreation tenures are being approved without analyses of cumulative effects
 - Assessing the effects of specific activities on wildlife and habitats becomes increasingly difficult as additional activities are introduced on a limited land base

- Unlike procedures for Federal and US public lands, there is no requirement for an environmental assessment
- There is broad public/stakeholder support for backcountry access management planning and zonation, as well as studies of environmental and social carrying capacity (Brown 2001); however, the approval of tenures in most areas is occurring without these steps because of government's capacity to deal with the issues
- The tenure application process is essentially "reactive" because applications are not offered through a planned disposition process
- The capacity of government to manage wildlife-related issues is declining, despite increasing demands on the resource. The result is that operators are going to be obligated to increase their stewardship activities. The new roles and responsibilities of government and the tourism sector have yet to be determined
- There is increasing pressure to streamline the tenure approval process because of recent political direction:
 - The *New Era* and *Heartland Strategy* have committed the Province to increase access to Crown land for tourism, develop new tourism opportunities and to focus on resort development and expansion
 - With respect to the legislative regime Government has placed an emphasis on de-regulation of the tourism sector, and a move towards developing results-based and scientifically-based regulations

A Proposed Management Strategy

The following is a framework for a proposed strategy to manage backcountry recreation in relation to wildlife and habitat. It is based on the following principles:

- Tourism sector participation in the development and implementation of a management strategy is critical to its success
- The strategy is based on the principle of shared stewardship, recognizing the resources available to government and the economic realities of the commercial backcountry recreation sector
- The strategy should apply broadly to commercial and public backcountry users
- Requirements should be relatively simple for users to follow
- Poor outcomes must trigger management change

Management Intent

The management strategy is driven by a simple intent:

To ensure that recreation activities in the backcountry do not affect the current distribution of wildlife, the sustainability of their populations, or the integrity of their habitats.

The management intent establishes a scope for the strategy that is considerably broader than the *Interim Guidelines* (WLAP 2002). First, it is meant to apply to all backcountry recreation users, both commercial and public, and; second, it applies to habitats as well as to wildlife. This recognizes the obvious dependency of wildlife on the habitats they occupy, and also recognizes the need to protect habitats in the broader context.

The management intent focuses on mitigating the negative impacts of recreation activities on wildlife and habitats either individually or in a cumulative effects context, but does not consider social trade-offs among different activities.

Decision Framework and Policy Tools

Managing recreation requires a decision framework that outlines the steps required to evaluate a proposed activity in relation to its associated risks to wildlife and habitats within a proposed area. The decision framework is based on two, nested management decisions:

1. Should the activity be allowed in the context of associated ecological risks? And if so, then;
2. How should impacts be limited?

Methods to assess the “ecological risk” of an activity with respect to wildlife and habitats have yet to be developed; however, they should be based on:

1. The conservation status of the species affected (federal or provincial listing: red, blue, yellow, unlisted)
2. The probability, in the absence of guidelines or regulations, that the recreation activity could cause:
 - a. The alteration or destruction of habitat required by the species to fulfil life requisites
 - b. Temporary (on a scale of days or longer) or permanent abandonment of preferred habitats by the species.

Risk is a function of both likelihood and consequence. That is, high risk to wildlife can involve incidents that are unlikely but of severe consequence, or are more likely but of less consequence.

Table 1 summarizes these nested decisions in the context of available policy tools and the circumstances under which they are best applied.

Table 1. Summary of management decisions and available policy tools available to manage backcountry recreation activities in relation to wildlife and their habitats.

Ecological Risk (Impacts on Wildlife/Habitats/ Sensitive* Species)	Impacts known to be high on wildlife and/or habitats; known or suspected to be high on sensitive species	Some impact on wildlife/habitats/sensitive species acceptable; potential for impact high but can be managed predictably by establishing limits on activity	Some impact on wildlife/habitats/sensitive species acceptable; impacts either low or potentially higher in a cumulative context with other activities
Management Decision	Do not allow activity	Allow activity	
Policy Tools to Control Impacts	Prohibition	Limits on Inputs	Limits on Outcomes
Description	Area-based prohibition on activity (multiple spatial scales)	Limit on number of users or on behaviour of users (i.e. frequency of activity)	User behaviour guided by practices to achieve outcomes (within specified limits)
Management Intent	No impacts from activity	Sustainable yield; predictable impacts	Future desired conditions; limits of acceptable change
Best Applied	Little organization among users	Little organization among users	Organized users (better coercion)
	Impacts directly related to presence or absence of activity	Impacts respond predictably with amount of regulated activity (e.g., linear cause and effect)	Uncertain or complex interactions between activities and impacts
	Impacts can not be mitigated significantly through changes in frequency of activity or behaviour of users	Impacts related to activity can be mitigated by controlling the frequency of activity	Impacts related to activity can be mitigated by changes in behaviour associated with activity
Monitoring Requirements	Compliance with closure only	Compliance with limits, effectiveness of limits in achieving management intent	Compliance with practices, effectiveness of practices in generating desired conditions and achieving

Ecological Risk (Impacts on Wildlife/Habitats/Sensitive* Species)	Impacts known to be high on wildlife and/or habitats; known or suspected to be high on sensitive species	Some impact on wildlife/habitats/sensitive species acceptable; potential for impact high but can be managed predictably by establishing limits on activity	Some impact on wildlife/habitats/sensitive species acceptable; impacts either low or potentially higher in a cumulative context with other activities
Management Decision	Do not allow activity	Allow activity	
Policy Tools to Control Impacts	Prohibition	Limits on Inputs	Limits on Outcomes
			management intent
Principle Disadvantages	Broadly limits opportunity for activity	Simple relationships rare in multiple-use landscapes	Where outcome limits are exceeded, must often rely on limiting inputs
	Creates inequities among user groups if some activities are allowed but not others	Focused on inputs rather than outcomes	Monitoring requirements can be prohibitive

*Sensitive species are those of management concern

Activity not Allowed – Prohibition

Area-based prohibitions, such as closures to off-road vehicles in provincial parks, approach buffers on occupied goat winter ranges, or seasonal closures near critical nesting areas, are legitimate management actions where the management goal is prevent impacts of an activity on wildlife. Prohibitions are blunt management instruments but they create a very simple management strategy that is relatively easy to enforce.

Prohibitions are applied according to assessments of ecological risk and can be applied at a variety of spatial and temporal scales. For example, an activity might be prohibited province-wide on crown land where it is known to damage indiscriminately wildlife and/or habitats (e.g., “mud-bogging”). Alternatively, some activities might be prohibited in some areas and/or during specific periods to prevent impacts to sensitive species or during sensitive seasons (e.g., rafting restrictions during harlequin duck breeding season, helicopter tours near mountain goat kidding habitat in spring).

Prohibitions can be used as a precautionary policy where the impacts associated with an activity on sensitive species are uncertain.

Activity Allowed – Limits on Inputs

Limits on inputs are used very successfully in many aspects of wildlife management. Hunting regulations work because the relationship between the number of animals taken by hunters and the dynamics of wildlife populations is direct and relatively easy to measure. That is, the desired outcome of a sustainable wildlife population can be achieved by implementing fairly simple regulations that address activities that are known to be well-correlated with the number of animals killed (e.g., bag limits, limited entry permits).

Limits on inputs are appropriate where some impact on the wildlife and/or habitats is acceptable, and where direct relationships between the frequency of an activity and associated impacts can be established. Limits on inputs might also be necessary when limits associated with desired outcomes are exceeded (see below).

Activity Allowed – Limits on Outcomes

To limit outcomes related to a certain activity is to manage to a desired future condition. “Best practices” or “desired behaviours” are defined here as user behaviours aimed at achieving a desired future condition. The *Limits of Acceptable Change* process developed in the US can be considered a process to arrive at future desired conditions in the context of land use planning (e.g., Stankey et al. 1984).

To limit outcomes hypothesize that there are impacts associated with an activity and that management should be focused on defining limits around a future desired condition. There is rarely a technical solution to the problem of defining future desired conditions and associated limits (i.e., scientifically determined thresholds).

Science can inform the process but can generally not provide all the answers because future desired conditions and associated limits are generally expressions of values (Merigliano et al. 1998).

Managing to future desired conditions through practices or desired behaviours is most effective in circumstances where impacts associated with an activity can be mitigated significantly by changes in behaviour. For example, the “carrying capacity” of the alpine for mountain biking is dependent on the behaviour of riders – if riders use existing trails, avoid muddy conditions, etc., there is little correlation between the level of impact and the number of riders.

Managing to future desired conditions also works where relationships between activities and impacts are complex or non-linear. For example, the reaction of mountain goats and sheep to helicopters depends on several variables: helicopter type, approach vector and speed, weather, season, terrain, previous experience of animals, age-sex composition and group size (Wilson and Shackleton 2001). In this case, no practical studies are likely to find reliable thresholds and, therefore, no simple limits on inputs (e.g., approach distance regulations) can capture all circumstances. The reasonable solution is to define behaviours to achieve certain outcomes, within acceptable limits.

Using desired behaviours to achieve outcomes is most effective where there are organized and knowledgeable users. For example, fishing guides are more likely to adhere to desired behaviours than recreational fishermen because guides are expected to have a professional understanding of their environment and industry. There are also mechanisms such as tourism associations and certification schemes that can help to educate and enforce desired behaviours. There are instances where the broader public can be encouraged to adhere to desired behaviours (e.g., catch-and-release fishing); however, these are usually considered insufficient for comprehensive management.

Best practices or desired behaviours are considered by some to be “soft” regulations (e.g. Brown 2001) because there is often no mechanism to ensure that users follow guidelines and no consequences if they do not. However, the intent of managing to future desired conditions is to shift regulations from behaviours to outcomes. As a result, it is critical to define not only the future desired conditions but also acceptable limits around those conditions. Those limits can then form the basis for regulation.

Matrices of Backcountry-Recreation Guidelines

The central feature of the strategy are matrices of guidelines that outline the desired future conditions (results) by habitat type and issue category, desired behaviours by activity type that are expected to achieve the desired conditions, and a monitoring component that includes indicators and limits. Matrices are expected to guide the development of operational plans by operators.

Desired Conditions

Desired future conditions articulate the state of habitats and associated wildlife populations that the strategy is attempting to achieve. For the purpose of this strategy, 5 broad habitats are considered:

1. Grassland – warm-hot climate areas dominated by grasses and widely spaced trees or no trees.
2. Alpine/Tundra – Very cold climate areas dominated by dwarf shrubs, herbs mosses and lichens. Includes subalpine forests.
3. Freshwater – Lakes, rivers, streams and wetlands dominated by open water or a mixture of open water and emergent vegetation.
4. Foreshore – Coastal foreshore and near-shore areas.
5. Forest – All deciduous- and coniferous-forested ecosystems in the province.

Issues Categories

Within habitat types, the desired conditions required to manage recreation-wildlife interactions in a comprehensive manner can be expressed in terms of 5 issues categories (adopted from Joslin and Youmans 1999):

1. Degradation of soil, air and water quality
2. Integrity of vegetation communities
3. Direct disturbance of wildlife
4. Special management related to species of concern, specific habitat features, critical seasons, etc.
5. Integrity of fisheries resources

Desired Behaviours

“Desired behaviours” outline the practices of users that are most likely to achieve desired results. The experience of backcountry operators, as well as scientific and management literature should be used to draft the desired behaviours. Associated with some desired behaviours are “defaults”. These are science-informed, precautionary prescriptions that all users are expected to follow in the absence of operational plans.

There is the possibility that future monitoring will reveal that some defaults are not adequate to protect the wildlife resource. All users must be prepared to accept alternative defaults that will be triggered if monitoring indicates a problem.

Indicators

Indicators are measures that indicate whether a desired condition is being achieved. Indicators are best defined in terms of outcomes rather than inputs. For example, the occupancy of winter ranges by mountain goats in heli-skiing tenures is a better indicator of the desired condition of no long-term abandonment of winter ranges, than is an indicator based on the behaviour of helicopters and/or skiers. Indicators need to be:

1. Measurable
2. Directly related to desired future outcomes
3. Sensitive to changes in desired behaviours

There are a number of challenges related to developing appropriate indicators:

1. Indicators that are directly related to desired conditions are not always obvious
2. Indicators can be expensive to measure
3. Indicators might be related to desired conditions but changes in the indicator might be causally unrelated to the recreation activity

The third issue poses a particular problem in multiple use landscapes and can be resolved only through land use planning that involves other agencies and stakeholders.

Limits

Limits are the upper and lower bounds around indicators that reflect the tolerance for change with respect to future desired conditions. The best limits are those that are respected absolutely (Cole and McCool 1998). That is, there is no leniency when limits are exceeded and, conversely, no additional management actions are demanded as long as indicators remain within limits.

If limits are exceeded, then management of the activity must change. Changes to the management of an activity can include:

1. Restricting inputs (e.g., user quotas)
2. Prohibitions
3. Modifying desired behaviours

Indicators and associated limits are the key features of a compliance and effectiveness monitoring strategy (see below).

Compliance and Effectiveness Monitoring

Monitoring is a critical component of the strategy, although funding and institutional support for monitoring is always limited (Cole and McCool 1998). Not all activities in all areas demand comprehensive monitoring. Different levels of monitoring can be applied depending on the circumstances. The level of monitoring should be sensitive to the risk of impact of the activity and the organization and ability of user groups to enforce limits (Table 2). Monitoring must involve both compliance and effectiveness elements. Compliance monitoring determines whether regulations, policies and desired behaviours are being followed by users, while effectiveness monitoring determines whether regulations, policies and desired behaviours are achieving desired results. Effectiveness cannot be assessed unless users are in compliance.

Table 2. Different levels of monitoring associated with backcountry recreation activities and when they are best applied.

Monitoring Level	When Applied	Resources	Monitoring Requirements	
			Routine	Intensive
1. Self-motivated	Low impact activity	Signage, brochures, etc.	Sign, etc. maintenance; informal field checks of ecological conditions	None
2. Volunteer	Low-moderate risk of impact	Local club/group committed to disseminating best practices information and monitoring compliance and effectiveness	Ongoing contact with club/group; informal field checks of ecological conditions	Formal surveys of wildlife, habitat conditions to assess effectiveness of best practices
3. Association	Low-moderate risk of impact; commercial operators	Association with code of conduct and monitoring/punishment of members	Ongoing contact with association; analysis of monitoring information to determine compliance	Formal surveys of wildlife, habitat conditions to assess effectiveness of best practices
4. Certification	Moderate-high risk of impact, commercial operators	Certification scheme with ecological criteria, indicators, standards and monitoring	Periodic review of certification criteria and status of operators; monitoring of operators without certification	Effectiveness evaluations related to gaps in certification criteria
5. Formal	High risk of impact; non-commercial or non-certified commercial operators or where certification criteria are inadequate	Enforceable limits (inputs and/or outputs); development of a monitoring framework; resources to ensure compliance and effectiveness	Analysis of user-maintained data	Compliance audits; effectiveness evaluations based on wildlife inventory and habitat surveys

Adaptive Management

The guidelines matrices will be informed by science and will be based on the experience of users; however, there will be knowledge gaps and, as a result, opportunities to “learn by doing.” As a result, the strategy encourages the development of innovative practices.

Innovative Practices

Innovative practices are a set of different desired behaviours that are hypothesized to achieve the same future desired conditions as the desired behaviours found in the guidelines matrices. To be implemented they must be linked to a formal monitoring program and must be approved by a qualified professional. In turn, MOE will use the knowledge acquired from the innovative practices to revisit and revise desired behaviours (in

cooperation with the relevant sectors). This establishes an adaptive management “loop” that ensures that the management strategy is always based on current knowledge.

Putting it All Together

The decision framework, policy tools, land use planning, monitoring and adaptive management components of the strategy can be expressed in terms of an overall workflow process (Figure 1). The decision analysis leads to the application of different policy tools. Depending on which policy tools are applied, there might be situations that arise where potential solutions fall outside the envelope of the guidelines (e.g., land use planning). All situations will require some level of monitoring.

Parallel to this workflow is an adaptive management loop that uses the results of monitoring and innovative practices trials to improve and refine desired behaviours and other elements of the guidelines matrices.

How the Strategy Improves on the Interim Guidelines

The proposed strategy addressed many of the concerns raised by the tourism sector and environmental/recreation groups during the Brown (2001) consultation:

1. Guidelines are not user friendly. While this document presents a technical rationale, the guidelines that backcountry operators are expected to follow are logically presented by activity, habitat, issue and desired behaviours. This ensures that tourism operators can quickly find the information directly related to their activity (usually summarized in 1-2 pages). It also eliminates the problem of overlapping objectives.
2. Guidelines apply only to commercial operators. All backcountry users are expected to follow desired behaviours.
3. Guidelines are prescriptive. The matrix of guidelines is now based on a results-based (outcomes) approach and focuses on future desired conditions.
4. Guidelines were developed without the input of operators. The tourism sector will play a significant role in populating the guidelines matrix. The overall strategy is being developed in the context of the *Tourism-Wildlife Project Team*.
5. There is no consistency in the application of guidelines. The intent of the guidelines matrix is to provide consistent desired future conditions and behaviours that all backcountry users, including current commercial operators, are expected to follow. The issue of different legal requirements for some existing operators remains.
6. The tourism sector prefers best practices while environmental/recreation groups prefer regulation. The strategy outlines a rationale for applying different policy tools, including limits on inputs and outcomes, as well as prohibitions on activities. The main criticism of environmental/recreation groups regarding “best practices” approaches is that the practices do not have the force of law, as do regulations. In the proposed strategy there is no attempt to enforce desired behaviours, but is no reason why indicators and limits can not be included in legal agreements.
7. There is no consideration of cumulative effects or broader strategic land use decisions. The proposed strategy focuses on future desired conditions because determining carrying capacities in relation to human-related activities in multiple-use landscapes is impractical. Addressing strategic land use planning is beyond the scope of this strategy; however, it does indicate where land use planning (with the involvement of other stakeholders and agencies will be required.

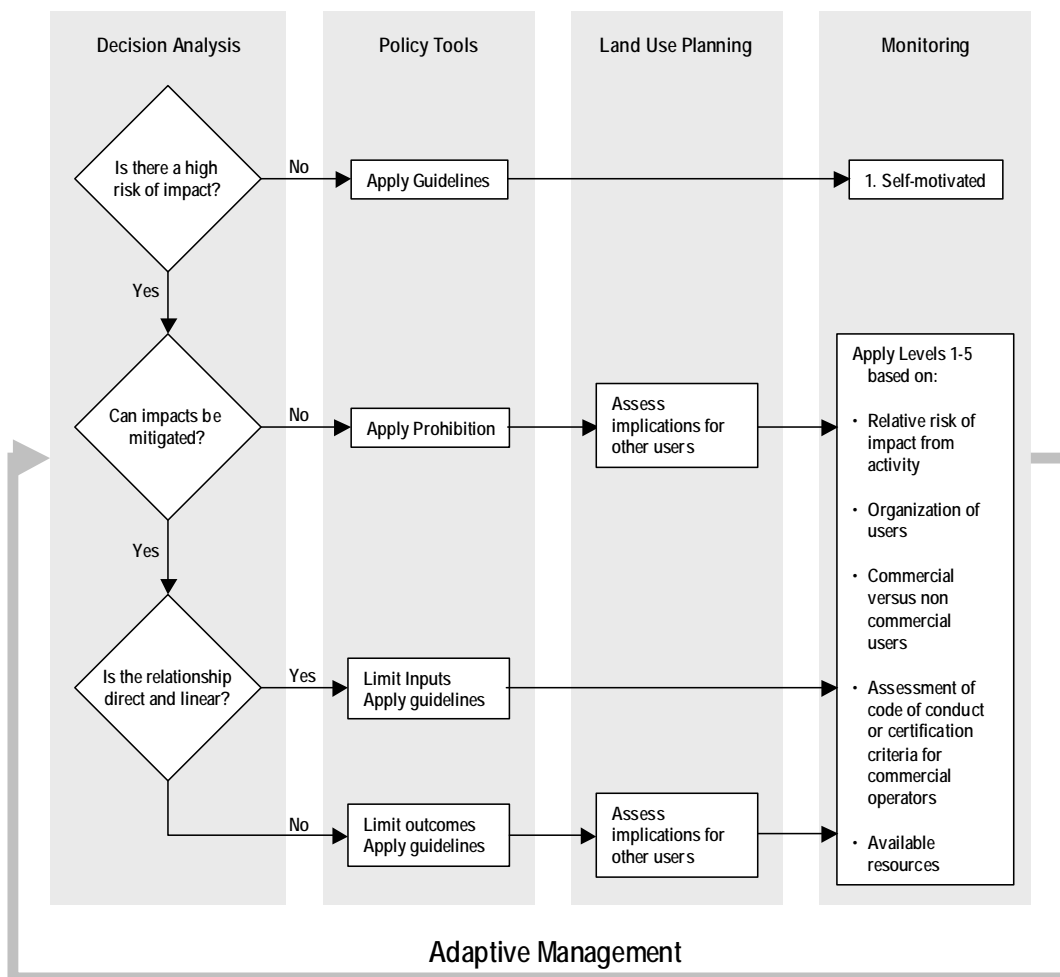


Figure 1. Workflow process for managing backcountry recreation in relation to wildlife and their habitats.

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