

Mt. Norquay Ski Area Site Guidelines for Development and Use

Banff National Park

July 2011



TOWARDS LAND USE CERTAINTY

The story of downhill skiing in Canada's mountain national parks began in the 1920's and has evolved over time as skiing itself has evolved. The four ski areas in Banff and Jasper National Parks continue to enjoy a loyal following and are renowned for the world-class experiences that they offer visitors. Similarly, our knowledge of ecological integrity and our understanding of the state of our parks have evolved over time. Facilitating memorable visitor experiences that leave these special places unimpaired for future generations remains a central challenge of park management.

Mt. Norquay was the first downhill skiing area developed in the Canadian Rockies due to the efforts of an active group of outdoor enthusiasts from Banff. The first ski cabin was built in the late 1920's, the first rope tow in the early 1940s and first chairlift in 1948. Until the early 1960s, Mt. Norquay was the premier ski area in the Rockies with 95% of the skier-days recorded for Banff National Park spent at Norquay. Given its history of development, there is a strong emotional bond between the community and Norquay. In tandem with Sunshine Village and the Lake Louise ski areas, it contributes to the economic well being of the community in winter.

A long-range plan approved in 1989 has been implemented and guided development and use decisions since then. Development has been, and continues to be, carefully controlled to maintain the ecological integrity of the park. Today, because of the evolving nature of the industry, the ski area believes its services and facilities require renewal if it is to remain competitive over the longer term. In particular, the ski area feels that broadening summer use activities is important to its long-term financial sustainability.

Part of the Canadian Rocky Mountain Parks World Heritage Site, Banff National Park is an important international symbol of Canada and the national park system. Like all national parks, it is dedicated to preserving a special part of Canada's natural and cultural heritage for the benefit, education and enjoyment of present and future generations. As the number-one provider of Canadian tourism destinations, Parks Canada has an overarching commitment to work closely with the people and communities whose livelihood depends on spending by Canadian and foreign visitors alike. Parks Canada supports initiatives by the tourism industry that contribute to maintaining the ecological integrity of the parks and building authentic connections to place through meaningful visitor experiences.

One of the key challenges for Parks Canada in fulfilling its mandate and supporting tourism is to clearly identify the direction that will be pursued in managing development, growth and use in national parks – and effectively communicating the manner in which that direction will be implemented.

These site guidelines address that challenge in a meaningful way for the Norquay ski area. They provide direction for the foreseeable future by describing the parameters to guide potential future development and use proposals and establishing permanent, negotiated limits to growth. They serve as a road map that will guide Parks Canada and Norquay in making future decisions that are consistent with Parks Canada's mandate, the *Ski Area Management Guidelines*, the Banff National Park Management Plan, and the needs of the ski area. Norquay has indicated that it will use the management parameters and strategies identified in this document to guide the preparation of its long-range plans.

Ski Area Management Guidelines: Five Principles

The *Ski Area Management Guidelines* (Minister of Environment, 2006) govern planning and management for the ski areas in the mountain parks. The Guidelines clarify, for the benefit of ski area operators, Parks Canada staff and Canadians, the type of land use and development that can be considered in these areas. The site guidelines apply five key principles from the *Ski Area Management Guidelines* to Norquay.

- 1. The approach taken to manage growth, and the preparation of the site guidelines and long-range plans at ski areas will be similar to that taken for communities and outlying commercial accommodation.***



Similar to the approach that was previously established for managing national park communities and outlying commercial accommodations (OCAs), Parks Canada will carefully consider managed growth at the mountain national park ski areas within specified parameters. Negotiated, permanent growth limits and defined management parameters will address ecological challenges, contribute to a higher quality visitor experience, and support Norquay's efforts to maintain a sustainable business operation.

The potential development and use contemplated in these site guidelines, will be advanced through subsequent long-range plans except where noted otherwise. Potential development will take place over time and will proceed so as to maintain a balance among the ski area's key components (e.g., lifts, ski terrain, day lodges, parking and other services). Infrastructure will have sufficient capacity and meet environmental standards before ski area growth takes place.

The establishment of negotiated, permanent growth limits for Norquay provides business planning certainty and supports the long-term protection of ecological integrity in Banff National Park. In addition, the management parameters will ensure that development and use reflect Norquay's location in a national park and World Heritage Site.

Norquay's long-range plans and initiatives will respect the requirements of the *Canadian Environmental Assessment Act*, the *Ski Area Management Guidelines*, the park management plan and the *Norquay Site Guidelines for Development and Use*.

2. *Inside the existing developed area, new development may be considered if potential ecological impacts can be mitigated.*

To prevent any significant impact on wildlife, vegetation and aquatic environments, the site guidelines include key ecological management parameters. All development and use proposals must demonstrate that these parameters will be achieved.

The existing developed area (Map 1) covers 169.7 ha and includes ski runs, gladed areas, buildings, parking lots and other structures. Initiatives that Norquay may wish to pursue that can be considered within this area, if advanced and approved as part of a formal long-range plan proposal, include:

- new lifts, runs and gladed areas;
- run widening;
- improvements to the tea house;
- expansion and/or consolidation of day lodges; and
- expansion of terrain covered by snowmaking.

Consistent with the *Ski Area Management Guidelines*, in recognition that it will take time to prepare a long-range plan, Parks Canada may consider projects following the approval of site guidelines but in advance of a long-range plan if proposals are "*entirely within the existing Developed Area, do not contribute significantly to cumulative effects, are not linked to other projects and long-range plan decisions and do not result in incremental expansion.*" At Norquay the following potential initiatives are examples of what can be advanced following the approval of these site guidelines:

- upgrades and replacements of existing lifts that involve new alignments;
- minor terrain modification;
- improvements to snowmaking infrastructure to support efficiencies in snowmaking operations for existing covered terrain; and
- consolidation and relocation of maintenance buildings.



3. *Outside the existing developed area, new development may be considered if it results in a substantial environmental gain.*

Norquay has proposed a substantial leasehold reconfiguration that would result in the removal of the lands from the ski area leasehold in exchange for consideration of three potential initiatives that would be considered minor exceptions to the *Ski Area Management Guidelines*. The proposed lease reduction will ensure the protection of a portion of the Forty Mile Creek wildlife corridor that is adjacent to the ski area. As such, it will provide greater long-term protection of ecological integrity than would be the case if the area remained in the lease.

The ski area has also proposed to decommission the ski out and implement active measures to ensure it is not accessible for recreational use. This would be an important contribution towards helping improve the effectiveness and long-term security of the Cascade wildlife corridor.

This improved level of long-term certainty and protection is considered a substantial environmental gain that will contribute meaningfully to Parks Canada's objective of maintaining or improving ecological integrity in Banff National Park.

In exchange for this voluntary substantial environmental gain, Parks Canada has agreed to consider the following potential future initiatives as exceptions to the *Ski Area Management Guidelines*:

- a minor adjustment of the Developed Area (Map 2);
- a small amount of new ski terrain outside of the existing Developed Area (Map 2); and
- significant terrain modification associated with improvements to the Spirit High Traverse.

In addition the ski area proposes to remove the cliff area above the upper ski lift terminals from the lease and have the area managed under a licence of occupation with defined limitations. This will provide Parks Canada with greater control in managing the area and enhance protection of wildlife including mountain goats and bighorn sheep.

All potential future initiatives that are being considered as exceptions to the *Ski Area Management Guideline* must be advanced by Norquay as part of a long-range plan and the associated application of the *Canadian Environmental Assessment Act*, if the ski area elects to pursue those initiatives. A new lease, that confirms the lease reconfiguration, including the cliff area licence of occupation, would need to be in place before proposals arising from the exceptions can proceed. Adjustments to the leasehold boundaries would be reflected in an amendment to Schedule 5 of the *Canada National Parks Act*. In addition, the area removed from the lease, that is adjacent to Forty Mile Creek, would be added to the declared wilderness area of the park through an amendment to the *National Parks Wilderness Area Declaration Regulations*. This will result in a net increase in declared wilderness area for the park. In total, Norquay's proposed boundary changes reflect a 44% reduction in leasehold size of which 19% is directly related to providing better protection to the wildlife corridors and park lands. The changes to the lease and legislative and regulatory amendments are the best possible protection that Parks Canada can give these lands.

4. *Ski areas will contribute to a unique, memorable national park experience and promote public appreciation and understanding of the heritage values of the park, the world heritage site and local conservation initiatives.*

Improvements to lifts, day lodges, the tea house, ski terrain and snowmaking, if advanced as proposals, would enhance the skiing experience. To complement these efforts and reinforce the location of the ski area in a national park, Norquay will:

- apply mountain park ski area best management practices;
- develop and implement a heritage tourism program; and



- develop and implement architectural and sign guidelines.

Norquay has expressed a desire to reintroduce summer use of lifts and a range of summer use activities including the development of a via ferrata on the cliffs above the tea house. Parks Canada is prepared to consider summer use of a lift and potential new recreational activities subject to:

- new recreational activity proposals being consistent with park-wide guidelines;
- substantive improvement in the effectiveness of the Cascade wildlife corridor through measures that effectively reduce traffic levels and associated disturbance events on the access road between the Juniper Lodge junction and the Norquay leasehold through the introduction of mass transit and other off-lease initiatives such as construction of wildlife trails;
- implementation of measures to improve wildlife habitat on the leasehold and adjacent lands through restoration of native vegetation patterns and composition;
- enhanced protection of wildlife habitat within the lease by ensuring no visitor use between the tea house and the base area;
- a business plan that includes education of national park heritage values as a core component of the visitor experience; and
- effective mitigation of any potential site specific impacts to ensure the ecological improvements noted above are not compromised.

The site guidelines outline specific parameters and limitations for advancing any potential future proposals for changes to summer use. Decisions on summer use changes will be made in a long-range plan subject to the application of the CEAA. A potential via ferrata, if approved as part of a long-range plan, would be managed by a licence of occupation. The development of the via ferrata, and summer use of lifts, will only be considered if the conditions noted above and the leasehold reconfiguration are achieved. Environmental improvements, as detailed in a long-range plan, must be in place prior to implementing approved changes to summer use.

A heritage tourism strategy will include new education programs for winter and summer visitors and will be a core component of any changes to summer use that may be approved. Programs for visitors and Norquay staff will: help celebrate the heritage values of the park and its world heritage site status; reduce potential impacts on sensitive areas/species; promote environmental stewardship; and help support public safety initiatives.

5. Ski areas will be leaders in environmental management, stewardship and best practices.

An environmental management and monitoring system based on the Sustainable Slopes, Environmental Charter for Ski Areas will be implemented. The ski area will also apply *Mountain Park Ski Area Best Management Practices for Development in Jasper and Banff National Parks of Canada*, which outline protection measures for routine projects.

Conclusion

The substantial reduction in the leasehold area, decommissioning of the ski out, improvements to wildlife habitat and to the Cascade wildlife corridor, the establishment of permanent, negotiated limits to growth, the enhancement of environmental stewardship programs and new education programs for skiers and Norquay staff on the natural and cultural heritage values of Banff National Park, collectively represent a major conservation commitment by the owners/operators of the Mt. Norquay ski area that will contribute to the protection of Banff National Park's ecological integrity over the long term. At the same time, improvements



to ski terrain, lifts, facilities, services and public education opportunities will enhance the winter experience in the park and World Heritage Site.

New summer visitor opportunities, should these be advanced through a long-range plan, will be considered where they broaden the range of national park experiences and are associated with a net improvement to ecological conditions.

Parks Canada supports carefully managed development and use at Norquay that contributes to the ski area's sustainable business objectives in a manner that enhances the ecological integrity of the park and that contributes to enhancing visitors' national park experience. By applying the *Ski Area Management Guidelines* and the provisions of these site guidelines, Norquay will be well positioned to play an ongoing leadership role within the skiing sector in the use, enjoyment and protection of Banff National Park.

Mt. Norquay Ski Area Site Guidelines for Development and Use

Approved by _____

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Chief Executive Officer
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Mt. Norquay Ski Area Site Guidelines for Development and Use

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June 17, 2011

Norquay Ski Area Statement of Concurrence:

The Mount Norquay Ski Area is the oldest of the four existing resorts in Canada's national parks.

Due to its small size and lack of competitiveness compared to the other areas, Mount Norquay faces special challenges to achieve sustainability.

These Site Guidelines represent a sincere and environmentally progressive effort on the part of Mount Norquay to address the challenges it faces so it can continue to serve as a family and community valued resort located in close proximity to the Town of Banff.

Carefully managed summer use is critical to Mount Norquay's future. These Site Guidelines provide a framework to submit proposals for an enhanced visitor experience aligned with the Parks Canada mandate.

To restore its summer use, Mount Norquay has offered significant leasehold reductions and positive ecological initiatives. This will be done voluntarily in good faith to improve ecological integrity and create land use certainty.

The primary challenge Norquay faces moving forward with these Site Guidelines is the management of traffic / traffic reduction along the Norquay road. Norquay sees this as a challenge that both the Ski Area and Parks Canada will, and must, work in close collaboration to achieve the desired results. Norquay concurs with the Site Guidelines and will use the site guidelines as an integral part of the development of the long range plans.

In terms of future ski area winter development for which substantial environmental gains have been offered, the two minor proposals put forward as exceptions by Mount Norquay are very modest.

Mount Norquay understands that development proposals consistent with these Site Guidelines advanced through a Long-Range Plan and associated application of the Canadian Environmental Assessment Act will receive favorable and reasonable consideration by Parks Canada.

Mount Norquay requests that a new 42-year lease be negotiated as part of the long-range planning process. We understand that Parks Canada will grant a new, negotiated 42-year lease simultaneously with approval of the first Long-Range Plan and that projects approved in the Long-Range Plan may proceed to the development review process at that time.

Mount Norquay understands that the new, negotiated 42-year lease will reflect the voluntary leasehold reductions and any required License of Occupation outlined in these Site Guidelines.

Our clear expectation is that the initiatives provided in the Site Guidelines are attainable, subject to the document terms. It is also understood that the Board of Directors of Mount Norquay using its approval process has the right to approve its Long-Range Plan submissions and the new, negotiated 42-year lease prior to the completion of those documents.



Mount Norquay thanks Parks Canada for its intent to support the initiatives contained herein, which from a policy perspective Parks Canada has determined to be acceptable.

Mount Norquay, Parks Canada, the community and others must continue the collaborative approach which is the foundation of these Site Guidelines as several actions required to achieve the full ecological benefit of these Site Guidelines occur off the leasehold. In doing so both the visitor experience and ecological integrity will be enhanced.

Peter Sudermann
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1.0 INTRODUCTION

Across Canada, Parks Canada's system of national parks and national historic sites serves to protect and present nationally significant examples of our country's heritage. As the federal Agency charged with the task of managing these special places on behalf of Canadians, Parks Canada's fundamental responsibilities consist of fostering public understanding, appreciation and enjoyment while protecting ecological and commemorative integrity.

A popular place to enjoy the mountain national parks in winter is at one of the four ski hills located in Jasper and Banff National Parks of Canada. The Parks Canada Agency supports a healthy and viable ski industry within the context of its mandate. With respect to Norquay, in particular, the *Banff National Park Management Plan* recognizes that a carefully planned and managed ski area can meet the needs of visitors, while complementing the broader objectives of the park. The *Ski Area Management Guidelines* also provide ministerial direction for ski area planning and management.

"Parks Canada's primary goal for the management of ski areas is to achieve long-term land use certainty that:

- *ensures ecological integrity will be maintained or restored;*
- *contributes to facilitating memorable national park visitor experiences and educational opportunities; and*
- *provides ski area operators with clear parameters for business planning in support of an economically healthy operation."*

(Ski Area Management Guidelines, Minister of Environment, 2006, page 1)

1.1 Ski Area Management Guidelines

Since 2000, *Ski Area Management Guidelines* have governed the preparation of long-range plans for ski hills in the mountain parks. Refinements to the Guidelines in 2006 were aimed at better protecting ecological integrity, better reflecting the full scope of Parks Canada's mandate and addressing the legitimate concerns of communities, ski areas, environmental organizations tourism associations and recreationalists.

In some cases the strict application of the original 2000 Guidelines prevented the consideration of some initiatives that had the potential to achieve environmental improvements. For this reason, the revised 2006 *Ski Area Management Guidelines* allow Parks Canada to consider exceptions in certain circumstances.

"Exceptions to the Guidelines for facilities, parking, terrain modification limits and adjustments to the perimeter of the Developed Area can be considered if there are Substantial Environmental Gains. Exceptions will not be considered for on-hill accommodation, Growth Limits, water permits and infrastructure requirements.

Ski area expansion into Undeveloped Areas, Un-skied Terrain and Un-serviced Terrain can only be considered if there are Substantial Environmental Gains. An example of an exception that can be considered is a leasehold reduction or reconfiguration that results in better protection of sensitive areas in exchange for development in less sensitive areas.

New land, in exchange for removal of the sensitive areas from the leasehold, will be managed through a licence of occupation consistent with the tenure of the lease."

(Ski Area Management Guidelines, Minister of Environment, 2006 page 5 & 6)



To proceed to the permit approval stage, potential exceptions must be approved as part of a long-range plan and the substantial environmental gains must be in place. This will include ensuring related lease reconfigurations and licenses of occupation are confirmed through appropriate processes before permits may be issued for potential initiatives approved as exceptions under these site guidelines.

1.2 Site Guidelines

“Based on the Ski Area Management Guidelines, ski area specific Site Guidelines outline what development and use may be permitted, Growth Limits, the broad parameters for the type, nature and location of development and use and the approaches to enhance the character of the ski area’s operation to reflect its location in a national park and World Heritage Site. They provide the direction for the preparation of Long-Range Plans. Site Guidelines are intended to guide development and use for the foreseeable future.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 9)

The primary focus of the site guidelines is to identify parameters to guide potential future development, to establish negotiated, permanent limits to growth and to provide certainty regarding the types of initiatives and use, consistent with the *Ski Area Management Guidelines*, that can be considered should specific proposals be advanced by Norquay in the future. These site guidelines were developed based on a list of potential future initiatives that Norquay indicated it might wish to pursue at some time in the future if possible. Parks Canada reviewed the list to determine which of the potential initiatives were consistent with the *Ski Area Management Guidelines* and which ones were not. Those that were consistent with the Guidelines are included in these site guidelines as possible future initiatives that the ski hill could advance proposals for should they decide to do so. The site guidelines also stipulate the conditions that must be met before Parks Canada will consider the potential future projects. If a proposal is consistent with the site guidelines, responds to the conditions in these site guidelines, responds to the mitigations and planning requirements of the Strategic Environmental Assessment and is advanced through a long-range plan and associated application of the CEAA, then it will receive fair and reasonable consideration by Parks Canada.

In a number of cases, there are environmental information requirements related to some of the potential future initiatives that Norquay has identified. In these cases the information gaps must be addressed as part of the preparation of a long-range plan or project proposal if the ski area wishes to pursue the potential initiative in the future. In specific, limited circumstances, the *Ski Area Management Guidelines* allow some initiatives to be considered before a long-range plan is in place (see *Ski Area Management Guidelines*, page 7 and 8). All other decisions on individual future project proposals will be made through the long-range planning process and the associated application of CEAA.

The site guidelines are a site-specific policy direction that provides the guide rails for Norquay’s preparation of long-range plans. They reflect the *Ski Area Management Guidelines* and offer certainty about land use during the preparation of long-range plans. Specific proposals will be advanced and related approvals will be sought through long-range plans or through the park development review process where long-range plans are not required.

The direction in these site guidelines provides a framework for Norquay to prepare one or more long-range plans. The duration of each plan will depend on Norquay’s unique circumstances and planning horizon. In the future, it is conceivable that Norquay may wish to advance potential initiatives that have not been foreseen by the operator or contemplated by these site guidelines. These may be considered if they are consistent with the intent of the *Ski Area Management Guidelines*, the intent of the site guidelines, and the park’s management plan and if they are advanced through a long-range plan and application of the CEAA.



1.3 Stakeholder and Public Consultation

In preparing the *Ski Area Management Guidelines*, several opportunities were provided to a broad range of stakeholders and ski area operators to comment on a preliminary draft of the Guidelines. This input played a major role in shaping the final Guidelines that were announced by the Minister of Environment in December 2006. Environmental groups voiced “cautious optimism” with the revised Guidelines, provided that Parks Canada diligently applied them and that they result in the development of long-range plans.

The *Mt. Norquay Ski Area Site Guidelines for Development and Use* were prepared in collaboration with the ski area. To seek public and stakeholder views on a draft of the site guidelines, Parks Canada invited and considered input from a broad range of organizations, individuals and experts who are interested in the future of Norquay and Banff National Park. Public open houses were held in Banff and Calgary and attracted more than 100 people. Summary documents were made available at the open houses and were also posted on the Parks Canada website to facilitate broader public comment. The views of community leaders, the ski area, Parks Canada specialists, environmental organizations, other stakeholders and interested individuals have helped shape these site guidelines.

Although both the draft Norquay Site Guidelines and draft supporting Strategic Environmental Assessment were made available for comment, feedback focused on the site guidelines. There were only a few comments on the strategic environmental assessment and its conclusions. Public views concerning the draft site guidelines were varied from those who fully supported them to those who do not. Those who supported them thought they were well balanced addressing visitor experience, education and ecological integrity in an integrated manner. Those who did not support them were primarily concerned about potential changes in summer use, potential further development to support winter operations and substantial environmental gains concepts. Parks Canada has carefully considered these views in finalizing the site guidelines to ensure that they reflect the principles and direction of the *Ski Area Management Guidelines*.

Additional consultation opportunities will be provided to stakeholders and the general public during the long-range planning process and the associated application of the CEAA (see Section 6).

1.4 Ski Area Planning and Development Process

There are five main steps in the planning and development process for ski areas.

- Step 1: *Ski Area Vision* – the ski area outlines their future aspirations including potential initiatives that they may potentially wish to pursue in the future.
- Step 2: *Site Guidelines* – prepared by Parks Canada in collaboration with the ski area; represents Parks Canada’s response to the ski area vision; includes permanent, negotiated limits to growth and site-specific direction for development and use; strategic environmental assessment undertaken; stakeholder and public consultation; approval by Parks Canada Agency CEO.
- Step 3: *Long-Range Plan* – prepared by the ski area; describes specific projects the ski area proposes to undertake within a specified time frame at a pre-design level of detail; application of the CEAA; stakeholder and public consultation; approval by Minister of Environment.
- Step 4: *Permits* – specific projects submitted for development review; approval by the Field Unit Superintendent.
- Step 5: *Monitoring and Follow-up* – ensuring mitigations are successful and adjustments are made if necessary.



Projects/proposals that are consistent with an approved long-range plan can proceed to the permitting stages. Variations to projects that respect the intent of the long-range plan can be considered but will require review by Parks Canada to determine whether the original environmental assessment is adequate.

Long-range plans will describe one or more proposed projects/changes in use that will be implemented by the ski area during a specific time period of their choosing (anticipated to be between 5 to 15 years). Subsequent long-range plans (and associated environmental assessment), based on the site guidelines, can then be prepared for other groups of specific proposals according to the ski area's planning horizon. This process may repeat until Norquay reaches maximum build out as defined by the permanent, negotiated growth limits. Elements of an approved plan (a plan approved after the approval of these site guidelines) that have not been implemented can be carried forward and included in subsequent long-range plans.

1.5 Projects in Advance of a Long-Range Plan

“Following the completion of Site Guidelines, and in recognition that it will take time to prepare a Long-Range Plan, Parks Canada may consider additional projects if they are entirely within the existing Developed Area, do not have potential for significant cumulative effects, are not linked to other projects and Long-Range Plan decisions and do not result in incremental expansion. The following are the types of projects that may be considered:

- *Replacement of existing ski lifts;*
- *Parking lot improvements within the existing footprint;*
- *Limited terrain modification of existing ski runs; and*
- *Improvements to snowmaking infrastructure to support existing ski runs currently covered by snowmaking; water withdrawal would need to remain within existing water permit limits.”*

(Ski Area Management Guidelines, Minister of Environment, 2006, page 8)

Initiatives that are consistent with these criteria are identified throughout the site guidelines. All initiatives that do not meet these criteria, unless specifically noted otherwise, will need to be advanced through a long-range plan.

2.0 CURRENT SITUATION

2.1 Sustainable Business Considerations

The number of skiers at Norquay has fluctuated over the last five years, ranging from 97,000 to 140,000 per year. The average number of skiers on peak days over the past five years has been 3,050 visitors. During the same period, the average weekday saw 700 skiers and the average weekend saw 1,800 skiers per day. The 5th and 10th busiest days, averaged over the past five years had 2,500 and 2,263 skiers, respectively.

Downhill skiing is a cornerstone of winter tourism in Banff. While the primary draw to Banff is the Sunshine Village and Lake Louise ski areas, Norquay likely contributes to the overall attraction of Banff to skiers. Nonetheless, Norquay's fluctuating winter visitation and overall relatively low skier visits have generated concerns about its long-term sustainability, particularly in the context of ongoing expansion and construction of resorts in British Columbia. For this reason, the ski area believes it is necessary to diversify its operations, facilities and services in winter but especially in summer.



2.2 Key Ecological Considerations

Wildlife

- The ski area, and adjacent landscapes support some of the highest concentrations of ungulates in the Bow Valley of Banff National Park. Bighorn sheep, elk, deer (mule and white-tail), and mountain goat occupy this area, particularly in the period May through mid-July.
- High prey availability for all large carnivores, and high vegetation quality for bears result in use of this area by all large carnivores including grizzly bear (a species of special concern under SARA), black bear, cougar, wolf and coyote.

Wildlife Movement Corridors

- Due to long-term historical land use patterns in the Bow Valley near Banff and to significant Parks Canada investments in restoring habitat quality along the north side of the Bow valley, the Cascade wildlife corridor adjacent to Norquay Ski area remains the most functional route for wildlife moving around the Town of Banff.
- The Forty Mile Creek Wildlife Corridor partially transects the ski area lease.

Vegetation

- Wildland fire on Mt. Norquay was historically relatively frequent due to the proximity to the Bow Valley and prehistoric and historic human ignition patterns. Ongoing fire suppression related to infrastructure protection in the lands surrounding the Town of Banff including Mt. Norquay has profoundly changed vegetation conditions, particularly on the southerly aspects of Norquay and Stoney Squaw mountains.
- Concentrations of ungulates in the montane area that includes the ski area has reduced regeneration of several species of woody plants, again, specifically on southerly aspects of Mt. Norquay and Stoney Squaw. Species impacted by heavy grazing and browsing include trembling aspen, saskatoon, several species of willow and silverberry.

Aquatics

- The fish species in Forty Mile Creek, used by the ski area as a water source, is predominantly composed of native bull trout.
- Forty Mile Creek is subject to seasonal flow variations that may result in low flows coinciding with ski area water withdrawal with subsequent potential impacts to fish habitat during sensitive times of the year.

2.3 Key Cultural Resource Considerations

- The decommissioned ski jumps, the original day lodge and the tea house may have historical value however the facilities have not been evaluated.
- The first chairlift in Rockies was developed at Norquay in 1948.

2.4 Key Visitor Experience Considerations

- Mt. Norquay is in the view shed from the Town of Banff and as such influences the sense of place for millions of national park visitors.
- From various vistas at Norquay, most notably at the tea house, impressive views of Mt. Rundle, Bow Valley and the town of Banff are available, as well as an overview of the core montane area of Banff National Park.
- Norquay offers park visitors a quiet, uncrowded opportunity to enjoy the park only a short drive away from the busy Trans Canada Highway (TCH) and Town of Banff.
- There are good learning opportunities at the ski area associated with mountain park history, skiing in the Rockies and key ecological concepts and relationships of the montane ecoregion.



2.5 Regional Relationships

- The Town of Banff provides important support facilities for the ski area. This includes visitor accommodation, employee housing, services and infrastructure support.
- The Lands Around the Town of Banff area strategy has been approved and incorporated into the 2010 *Banff National Park of Canada Management Plan*, and is being implemented. The ski area can play an important role to complement initiatives in the strategy (eg. helping address wildlife issues related to the Cascade wildlife corridor).

2.6 Ski Area Construction and Development Considerations

- To better contribute to a memorable visitor experience, Norquay is seeking to diversify its operation to respond to changing customer needs, markets and industry standards while contributing to initiatives that maintain or restore the ecological integrity of Banff National Park.



3.0 GOALS AND PRIORITIES

Planning and development for Norquay will achieve the following Parks Canada goals and priorities for ecological integrity, visitor experience and education, and sustainable business operations.

3.1 Ecological Integrity

- *Provide land use certainty that eliminates potential future risks to ecological integrity;*
- *Protect habitat for sensitive species including grizzly bears and bull trout;*
- *Improve the effectiveness of the Cascade and Forty Mile wildlife corridors;*
- *Protect sensitive soil-vegetation complexes, including rare plants;*
- *Manage vegetation to reflect natural composition and diversity and to enhance wildlife habitat; and*
- *Demonstrate leadership in environmental stewardship.*

3.2 Visitor Experience and Education

- *Enhance the national park experience of visitors to the ski area;*
- *Promote understanding and appreciation of the natural and cultural heritage values of Banff National Park and its status as a World Heritage Site as part of the core experience of every user;*
- *Sustain the aesthetics (natural or historic vegetation cover, curved lines, etc) of existing views from the Town of Banff; and*
- *Reinforce the ski area's historical relationship to the Town of Banff.*

3.3 Sustainable Business Operations

- *Provide clear parameters for business planning in support of a sustainable operation;*
- *Create certainty about land use; and*
- *Cooperate with the Town of Banff, the tourism industry, mountain park ski areas and provincial agencies on promotional activities and initiatives that strengthen the visitor experience consistent with Parks Canada's vision for Banff National Park.*



4.0 PROTECTING ECOLOGICAL INTEGRITY

“Within the Developed Area, improvements to services and facilities can be considered. Additional infill ski runs, glading, run widening and parking can be considered. However to ensure ecological integrity and address aesthetic issues, modification of physical terrain and forest cover will be carefully managed. Site Guidelines will identify ecological management parameters to ensure ecosystem functioning is maintained and that sensitive areas are protected. At a minimum, this will include maximum run width, minimum distance between runs, maximum number of new runs and the prohibition of development in sensitive areas. Other parameters will be determined on a ski area by ski area basis.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 3)

Because of their relatively large size, ski area development and operations have potential to affect a park's ecological health. To maintain ecosystems and protect sensitive areas, Parks Canada, with the help of resource specialists, has identified the ecosystem *components* that require careful management and *ecological management parameters* to protect them.

For more information on the context, ecological parameters, and related issues, readers should refer to the *Strategic Environmental Assessment (SEA) for the Mt. Norquay Site Guidelines for Development and Use*.

4.1 Ecosystem Components

- *Cascade and Forty Mile Creek wildlife corridors;*
- *Diversity and pattern of native vegetation;*
- *Historic fire regime;*
- *Water quality;*
- *Surface and subsurface water flow;*
- *Grizzly bear;*
- *Native fish and amphibians;*
- *Important seasonal ungulate habitat; and*
- *Seasonally important predator and prey habitat.*

4.2 Ecological Management Parameters

The ecological parameters are intended: to ensure terrain design and vegetation reflect natural conditions; protect unique features and sensitive and rare vegetation; prevent displacement of sensitive wildlife from important regional habitat; maintain minimum flow required for aquatic habitats; and maintain water quality.

All future development and use proposals must demonstrate that the ecological management parameters for each ecosystem component are effectively addressed.

Vegetation, Terrain, Soil

- *Native species and communities dominate vegetation throughout the ski area;*
- *Plant communities reflect regional and local vegetation diversity;*
- *Glading and run clearing simulate native vegetation succession and patterns of natural disturbance;*
- *Native vegetation functions as an anchor against soil and terrain erosion;*
- *The composition and structure of vegetation provide habitat for a range of native species including grizzly bear and ungulates;*



- *Vegetation management, facility design and summer visitor use support the restoration of fire as a natural process; and*
- *Priority invasive non-native plants are eliminated.*

Aquatic

- *Development sustains natural surface and sub-surface connectivity, drainage or hydrology;*
- *Sufficient in-stream flows are maintained to support aquatic wildlife, taking seasonal variability into account;*
- *Flooding and seasonal flow patterns maintain riparian vegetation and fluvial processes;*
- *Riparian and aquatic habitat structure important to rare and sensitive aquatic and riparian species is maintained or restored (Cutthroat Trout, Bull Trout and amphibian species);*
- *Water quality on and adjacent to and downstream of the leasehold is maintained (Forty Mile Creek, Bow River);*
- *Withdrawal of surface water maintains the natural flow paradigm for riparian, aquatic invertebrate and native fish ecosystems; and*
- *Terrestrial and aquatic ecosystem processes function within natural range and variation.*

Wildlife

- *Run clearing, widening and glading initiatives maintain an overall mosaic of wildlife habitat conditions reflective of historic vegetation patterns and disturbance regimes;*
- *Summer activities such as construction, maintenance and visitor use do not displace or habituate grizzly bears, mountain goats, nesting golden eagles or other sensitive species;*
- *Visitor activities are developed and managed to achieve effective physical separation between visitors and bears and other sensitive wildlife;*
- *Development preserves natural food sources for grizzly bears and does not create non-native sources of food that would attract them;*
- *Effectiveness of the Cascade and Forty Mile wildlife corridors for use by sensitive species is improved through measures that reduce the overall number of disturbance events resulting from access to or from the lease area;*
- *Ski area operations and visitor use minimize the disturbance of wildlife during crepuscular (twilight) periods (approximately one hour before and after either sunrise or sunset in the winter and 2.5 hours in the summer season);*
- *Development, maintenance activities and recreational use do not displace ungulates from seasonally important habitat areas or features; and.*
- *Ski area development does not create habitat or result in human use conditions that alter natural predator/prey relationships.*



5.0 SITE GUIDELINES

5.1 Developed Area, Leasehold Boundary and Substantial Environmental Gains

“The existing Developed Area represents the area modified for skiing or other uses within the leasehold through construction of physical works, or through clearing/removal of trees and other vegetation, landscaping, terrain modification or other activity associated with ski area operation. It includes ski runs, lift lines, parking areas, commercial buildings, operational buildings and forested areas between ski runs. It does not include Undeveloped Areas, Un-serviced Terrain or Un-skied Terrain. The perimeter of the Developed Area will be determined by:

- *the top terminal of the upper-most lifts;*
- *the outer limits of formally cut ski runs/gladed areas or approved Ski Terrain; and*
- *the perimeter of base/parking, staging and operational areas.*

Inside the existing Developed Area, new development can be considered where potential ecological impacts can be mitigated. Outside the existing Developed Area, new development can be considered if there is a Substantial Environmental Gain within or adjacent to the leasehold.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 2 & 3)

Existing Situation

The existing developed area encompasses 169.7¹ha (Map 1). With a minor adjustment to the existing Developed Area, it will be sufficient in size to support Norquay’s winter aspirations. The ski area also hopes to develop a summer via ferrata operation in the cliffs above the tea house at the top of the North American lift. To accommodate this, should it be approved, the operation would be managed through a licence of occupation. The decision on a potential via ferrata operation is dependent on the approval of a long range-plan that addresses summer use (see Summer Use - Section 5.11).

Norquay has proposed the following initiatives as a substantial environmental gain to support exceptions to the Management Guidelines that would enhance winter ski area operations:

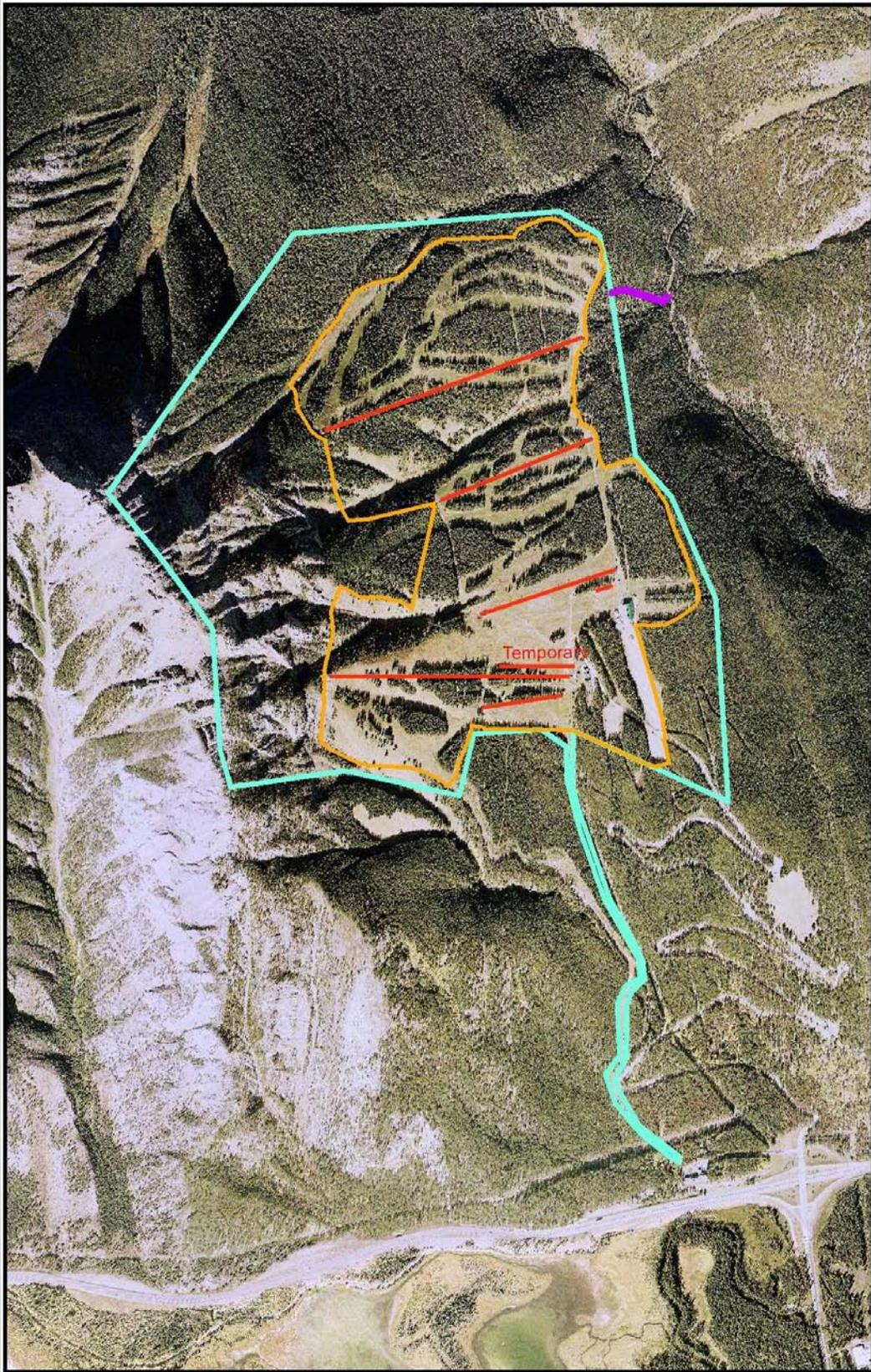
- Remove the eastern portion of the lease that is immediately adjacent to the 40 Mile Creek wildlife corridor; and
- decommission the ski out and implement active measures to ensure it is not accessible for recreational use.

Removal of the area east of the day lodge will involve some restoration of ski runs. The long narrow strip of lease down to the Juniper Hotel, adjacent to the TCH, will be removed from the lease and converted to a licence of occupation solely for the operation of the sewer/power line. Skiing in this area will be actively discouraged through physical barriers and vegetation screening. In addition, the area immediately to the east of the new day lodge will be removed from the lease.

¹ The existing Developed Area reflects the definition in the *Ski Area Management Guidelines* and is the basis for Parks Canada’s review of the existing situation. Norquay has indicated they do not concur with the definition or the Developed Area as shown on Map 1.



Map 1
Existing Lease Boundary and Developed Area



The existing Developed Area reflects the definition in the *Ski Area Management Guide/lines* and is the basis for Parks Canada's review of the existing situation. Norquay has indicated they do not concur with the definition or the Developed Area boundary as shown on this map.

-  Current Lease Boundary 300.1 ha
-  Existing Developed Area 169.7 ha
-  Current Licence of Occupation 0.24 ha
-  Existing Lifts

0 500 Meters
All boundary lines are approximate and are subject to final survey



Map 2
Proposed Lease Boundary and Future Developed Area



-  Proposed Licence of Occupation 80.0 ha
-  Proposed Future Developed Area 163.8 ha
-  Developed Area Adjustment
-  Existing Lifts
-  Temporary

All boundary lines are approximate and are subject to final survey



Map 2A
Changes to Lease Boundary and Developed Area



0 Meters 500
 All boundary lines are approximate and are subject to final survey

| | | |
|---|-------------------------------------|----------|
|  | Current Licence of Occupation | 0.24 ha |
|  | Conversion to Licence of Occupation | 80.7 ha |
|  | Areas to be Removed from Lease | 133.1 ha |
|  | Existing Developed Area | 169.7 ha |
|  | Current Lease Boundary | 300.1 ha |
|  | Existing Lifts | |

The existing Developed Area reflects the definition in the *Ski Area Management Guide/lines* and is the basis for Parks Canada's review of the existing situation. Norquay has indicated they do not concur with the definition or the Developed Area boundary as shown on this map.



The *Ski Area Management Guidelines* indicate that an example of a substantial environmental gain is “a leasehold reduction or reconfiguration that results in better protection of sensitive areas in exchange for development in less sensitive areas.” The Guidelines also define substantial environmental gain as “a positive change in key ecological conditions (wildlife movement and habitat, wildlife mortality, sensitive species/areas and aquatic ecosystems) that leads to the restoration or the long term certainty of maintaining ecological integrity. In order to determine if an ecological gain is substantial, the following criteria will be considered:

- *magnitude – major as opposed to minor improvement*
- *geographic contexts – broad scale as opposed to localized impact; and*
- *ecological context – improved protection or positive impacts to high value, rare or sensitive species/or multiple species.”*

The leasehold reconfiguration, to strengthen the protection of wildlife corridors and better protect park lands, reflects the intent of the *Ski Area Management Guidelines* and as such is considered a substantial environmental gain because (refer to Maps 2 and 2A):

- it represents removal of a relatively large area from the leasehold that will result in providing a greater degree of protection and certainty that the area will not be developed in the future. This is considered a positive change from the existing situation;
- the reconfiguration of the lease represents a substantial reduction in leasehold size and a net potential increase to designated wilderness lands;
- a portion of the lease reduction (19%) establishes long-term certainty and improved protection for wildlife movement along the edge of the lease and up Forty Mile Creek and in the Cascade wildlife corridor;
- restoration of ski runs on the east edge of the day lodge will improve the long term functioning of the Forty Mile Creek wildlife corridor; and
- the lease reduction, related to the Forty Mile Creek wildlife corridor, protects broad ecological values for multiple species associated with the area including habitat security for valued and sensitive species including grizzly bear, wolf, cougar, mule deer and white tailed deer.

Based on the benefits of removing a large portion of lands from the leasehold to better protect sensitive species and ensuring no future ski development in the area removed from the lease, Parks Canada will consider three modest exceptions to the *Ski Area Management Guidelines* subject to: formal proposals being advanced in a long-range plan, final decisions on the long-range plan, the application of *Canadian Environmental Assessment Act*; and the leasehold reductions are in place. The exceptions are outlined throughout Section 5.0 of this document.

The ski area has also proposed to convert the cliff area above the upper lift terminals to a licence of occupation. This represents a further lease reduction of 25% that will provide Parks Canada greater control in managing the area. Activities that will be permitted in this area will be limited to avalanche control programs to reduce safety risks, off-piste skiing, climbing and a via ferrata operation should it be approved through a long-range plan. Visitor activity in this area will be carefully managed to ensure habitat security and prevent habituation or displacement of bighorn sheep, mountain goat and other sensitive species.

In addition the ski area is proposing a number of major ecological improvements on the lease and to work with Parks Canada to achieve regional gains off the lease. These include reducing human traffic through the Cascade corridor to enhance its effectiveness for sensitive wildlife, and active vegetation management to enhance the diversity and composition of natural vegetation patterns. The vegetation measures will in turn result in improved wildlife habitat for grizzly bears and other sensitive species. To further contribute to Banff National Park priorities for restoring secure wildlife movement corridors in the Bow River drainage,



the ski area will contribute to the development by Parks Canada of one or more short trails to help wildlife move more freely through steep, constricted portions of the Cascade wildlife corridor off-lease.

Collectively the initiatives have the potential: to better protect wildlife habitat; restore vegetation composition, structure and functions to conditions more closely resembling the previous natural characteristics of the region and favourable to valued wildlife species; and restore wildlife corridor functions while ensuring that wildlife are not habituated or displaced from habitat essential to the regional population.

The strategic environmental assessment for the site guidelines has been undertaken at a significant level of detail and has been subjected to independent scientific review. This work provides useful information with respect to magnitude, geographic and environmental context of the proposed gains. The removal of the lands from the leasehold in combination with the ecological improvements to habitat and wildlife movement, the identification of ecological management parameters, mitigations and research requirements that are pre-conditions for all potential initiatives is anticipated to contribute meaningfully to Parks Canada's objectives for protecting and restoring ecological integrity.

Leasehold Reduction, Establishment of Licences of Occupation, Managing Exceptions

Objectives

- *Improve protection of the Forty Mile Creek wildlife corridor;*
- *Improve wildlife habitat security;*
- *Improve wildlife security in the Cascade corridor; and*
- *Link the timing of leasehold reduction and establishment of licences of occupation to initiatives that are exceptions to the Ski Area Management Guidelines.*

Site Guidelines

1. Require leasehold reduction and the establishment of licences of occupation to the extent shown on Maps 2 and 2A in the event that the ski area advances specific proposals for any **one of** the following potential initiatives:
 - ski terrain expansion on Mystic Ridge (see highlighted area on Map 2); or
 - significant terrain modification on the Spirit High Traverse.

NB: Leasehold reduction (the substantial environmental gain and conversion of the cliff area to a licence of occupation) is a condition for advancing the above exceptions. Although potential changes to summer use are not linked to substantial environmental gains and is not an exception to the Management Guidelines, changes to summer use at Norquay require a net improvement in ecological conditions and can therefore also only be considered if the leasehold reductions are implemented (see Section 5.11). Should the ski area choose not to advance any of the above initiatives or changes to summer use, then leasehold reduction will not be required.²

2. Require the leasehold reduction, licences of occupation and a new lease **to be in place** (signed and approved) prior to project permitting/proposal approval (or at the same time project permitting takes

² Initiatives that are not exceptions or changes in summer use do not require leasehold reconfiguration to be in place.



place)³, for any of the above noted potential initiatives. Project/proposal approval will be subject to a favourable determination under CEAA and an approved long-range plan.

NB: Adjustments to the leasehold boundaries are expected to be reflected in an amendment to Schedule 5 of the *Canada National Parks Act*. In addition some areas removed from the lease are expected to be added to the declared wilderness area of the park through an amendment to the *National Parks Wilderness Area Declaration Regulations*. This will result in a net increase in declared wilderness area for the park. The timing of the potential legislative and regulatory amendments will be determined as part of negotiations on a new lease.

Exceptions to the Ski Area Management Guidelines

1. Consider changes to the developed area, as reflected on Map 2, as an exception to the *Ski Area Management Guidelines*.
2. Prepare long-range plans based on the adjusted developed area.

5.2 Limits to Growth and Resort Balance

“The capacity of ski areas can increase but development will be permanently capped through Site Guidelines.

Growth Limits will be established for Ski Terrain, the Developed Area and commercial buildings. These limits will represent build out.

Within the Developed Area and the context of ensuring ecosystem functioning and terrain limitations, the balancing of ski area components can be considered. These components are Ski Terrain, commercial buildings, out-of-base lift capacity, total lift capacity and parking (including transportation shuttle systems).

Ski area development to the maximum Growth Limits can be considered if the principles and conditions set out in the approved Site Guidelines and Long-Range Plans are met.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 3 & 4)

Existing Situation

The existing skiable area covers 84.2 ha and is able to accommodate 4,000 to 4,500 skiers at one time however there is a shortage of intermediate terrain when compared to industry standards. The hill's 3,028 m² of existing commercial space comfortably serves the ski area's existing level of use. Currently the ski area has a disproportionate amount of operational space compared to skier services space when compared to industry standards.

The 1989 Mt. Norquay Ski Area Long-Range Plan identified a lift capacity of 3,300 skiers per day if the Memorial chairlift was built and 2,700 if it was not (the Memorial lift was not built). Skier capacity was based not on ecological considerations but strictly on the ability of the existing or proposed lifts to move skiers. Currently, on peak days, there are over 3,000 skiers/day. In general terms, there are no major issues associated with the existing balance between the various resort components (lifts, terrain, commercial space, parking).

³ Leasehold reduction will be achieved through establishment of a new lease. The new lease can be signed prior to or at the same time as permits are issued for approved projects as noted above.



To remain competitive and better serve its clientele, Norquay feels it is essential to modernize its operations, enhance ski terrain, diversify its winter operation and improve the efficiency of its snowmaking infrastructure. In the long term, to help it achieve financial sustainability, the ski area would like to work towards achieving winter visitation levels that reflect a design capacity⁴ of approximately 3,800 skiers per day. Designing facilities and services such as transportation systems to the resort, lifts and lodges based on a specific design capacity will determine the number of skiers the resort is able to serve comfortably. It is important to note that, with a fixed design capacity, the number of daily skiers will not be regulated. Parks Canada has traditionally managed ski areas using out-of-base capacity. This approach proved of limited value in protecting ecological integrity or offering a quality national park skiing experience. Going forward, defined limits to growth will now be used in its place. Norquay and Parks Canada have negotiated the following permanent limits to growth. These limits are based on:

- Parks Canada’s *Ski Area Management Guidelines* which permit an increase in capacity;
- ecological considerations;
- sustainable business operations;
- visitor experience;
- a balance among the various elements of the resort;
- a future design capacity of 3,800 skiers/day; and
- industry standards.

The design capacity of the ski area was determined through an analysis of ecological considerations, ski terrain capabilities and limitations, historical use of the ski area and compatibility with the operator’s goals. Key ecological considerations with respect to vegetation patterns, wildlife habitat and corridor effectiveness were all considered in determining the design capacity. Industry standards regarding the relationship of design capacity to the frequency of busy days, amount of skier service space per skier, skier density on ski terrain, lift wait times and the ratio of parking lot size to the number of skiers and potential transportation systems were also considered.

| Negotiated Permanent Limits to Growth | | | |
|--|---------------------------|----------------------|--|
| | Existing Situation | Change | Permanent Growth Limit (future total) |
| Developed Area⁵ | 170 ha | -6 ha | 164 ha |
| Ski Terrain⁶ | 84 ha | 15 ha | 99 ha |
| Commercial Space⁷ | 3,028 m ² | 1,222 m ² | 4,250 m ² |

The negotiated growth limits, based on the design capacity, represent the maximum potential build-out for Norquay. In advancing development proposals the ski area will need to demonstrate that the design capacity

⁴ Most ski resorts do not design their facilities to accommodate peak crowds. It is more common for ski areas to establish a daily ‘design capacity’ that is more representative of the 5th or 10th busiest day of the season.

⁵ Size based on a calculation of plan/horizontal area.

⁶ Ski terrain includes gladed areas; size based on a calculation of slope area.

⁷ Existing commercial space is an estimate.



and the growth limits will not be exceeded and that resort components remain in balance⁸. Individual development proposals, advanced through long-range plans and associated application of CEAA, will also need to demonstrate that issues related to potential cumulative effects are addressed in order for the project to be advanced.

Objectives

- *Ensure the permanent limits to growth are not exceeded; and*
- *Balance facilities and services, while respecting negotiated growth limits, and physical, infrastructure and environmental constraints.*

Site Guidelines

1. Use the negotiated design capacity of 3,800 skiers as the basis for reviewing development proposals.
2. Limit maximum potential development to the negotiated, permanent limits to growth. The maximum increase in commercial space from that existing in 2010 will be 1,222 m².
3. Consider proposals aimed at achieving resort improvements, balancing resort components (ski terrain, commercial space, out-of-base lift capacity, total lift capacity, transportation system and parking) and that are within the negotiated design capacity of 3,800 subject to the following:
 - terrain limitations;
 - achieving the ecological management parameters;
 - consistency with the site guidelines limits to growth;
 - addressing potential infrastructure issues; and
 - application of the CEAA.
4. Prohibit development that creates or exacerbates resort imbalances.
5. Allow the conversion of operational space to commercial space only if the negotiated growth limit of commercial space is not exceeded.
6. Require a real property report as part of any proposal for commercial space expansion. It will identify both operational and commercial space.

5.3 Ski Lifts

“Within the Developed Area the following can be considered: lift replacement, upgrade, realignment and new lifts.”

(Ski Area Management Guidelines, Minister of Environment, 2006, p 4)

Existing Situation

Norquay currently operates five lifts in winter, including one double chair, two fixed grip quad chairs, one detachable high speed quad chair and one surface lift (Map 3). Over time it is anticipated that these lifts will require upgrading to remain current with industry standards and to respond to guest expectations. In addition, the replacement of outdated lifts would ease maintenance requirements and offer skiers quicker ascents. It may also be desirable to adjust alignments of some lifts to improve skier circulation with respect to lodge facilities. A temporary tubing lift was recently installed on a trial basis.

⁸ All resort components will achieve a balance even at capacities below the design capacity. Lift capacity and commercial space will not be higher than the design capacity. To ensure resort balancing, development proposals will need to be carefully phased and linked together. This relationship will be addressed in long-range plans.



Objectives

- *Improve skier safety and circulation;*
- *Modernize facilities;*
- *Balance lifts with other ski area components; and*
- *Ensure new lifts and lift realignments are consistent with the run improvement/vegetation management strategy and visual aesthetics from the Town of Banff.*

Site Guidelines

1. Consider new lifts and the replacement, upgrade and realignment of existing lifts within the existing Developed Area that are consistent with the design capacity and negotiated growth limits. Map 4 illustrates the types of potential changes to existing lifts and new lifts that can be considered. Specific new lifts that can be considered are:
 - A 2nd Mystic Ridge lift;
 - A lift from the new day lodge to the tea house; and
 - Other new lifts may be considered if they are consistent with the intent of the *Ski Area Management Guidelines* and these site guidelines.Specific development proposals advanced by Norquay will address the type, nature, specific alignment and location of lifts.
2. Allow replacement/realignment/upgrades of existing lifts to occur after the approval of these site guidelines consistent with the *Ski Area Management Guidelines* and the negotiated growth limits. New lifts will be advanced through a long-range plan.
3. Ensure new lifts are energy efficient, balanced with other resort components and reflect the design capacity. Installation of new lifts will be phased in tandem with parking capacity and mass transit improvements to maintain resort balance. Parking/mass transit capacity needs to be sufficient to support added skier capacity arising from new/upgraded lifts.



Map 3
Existing Lift System



0 Meters 500
All boundary lines are approximate
and are subject to final survey

— Existing Lifts

The existing Developed Area reflects the definition in the Ski Area Management Guide/lines and is the basis for Parks Canada's review of the existing situation. Norquay has indicated they do not concur with the definition or the Developed Area boundary as shown on this map.



**Map 4
Potential Future Lift System**



0 500
Meters
All boundary lines are approximate
and are subject to final survey

-  Existing Lifts
-  Potential Future Lifts

-  Proposed Future Developed Area 163.8 ha
-  Proposed Licence of Occupation 80.0 ha

This map reflects the potential types of initiative the ski area may wish to advance in the future that can be considered should the conditions in the site guidelines be met. It is anticipated that specific proposals will vary from this illustration.



5.4 Ski Terrain/Runs

Ski terrain is defined as the “*area that is routinely skied over the course of a normal ski day (subject to avalanche and snow conditions). The terrain includes alpine areas, formally cut runs/trails, gladed areas, cat tracks, roads, lift lines or connectors. The terrain has been developed or is serviced. It does not include areas that require ski touring, hiking, or climbing to access or egress areas that are not serviced.*”

(*Ski Area Management Guidelines*, Minister of Environment, 2006, page 10)

“*Within the Developed Area, improvements to services and facilities can be considered. Additional infill ski runs, glading, run widening and parking can be considered. The Long-Range Plan will include a run improvement and vegetation management strategy.*”

(*Ski Area Management Guidelines*, Minister of Environment, 2006, page 3)

Existing Situation

Norquay has 27 numbered runs (Map 5). Off-piste skiing also occurs in areas above the top terminals of some lifts (outside of the existing developed area). It is increasingly common for advanced skiers to seek an off-piste experience by climbing above lifts in an effort to seek extreme terrain, un-groomed terrain or powder conditions. The ski area has an adequate amount of beginner/novice terrain, a surplus of expert terrain and a shortage of intermediate terrain when compared to industry standards. To address this short coming the operator believes that an improved skiing experience could be achieved by providing some additional intermediate terrain, glading opportunities, and widening several runs on Mystic Ridge and improving linkages between beginner and intermediate runs.

The ski area has a long history of supporting local, regional and national ski races. However some runs that are otherwise well suited for races no longer meet racing standards because they are too narrow according to Alpine Canada standards.

Objectives

- *Maintain naturally functioning ecosystems;*
- *Protect ecologically sensitive areas;*
- *Provide additional terrain for intermediate skiers;*
- *Reduce skier congestion;*
- *Improve connectivity, skier traffic flow and circulation;*
- *Protect viewscapes; and*
- *Ensure ski terrain is consistent with limits to growth.*

Site Guidelines

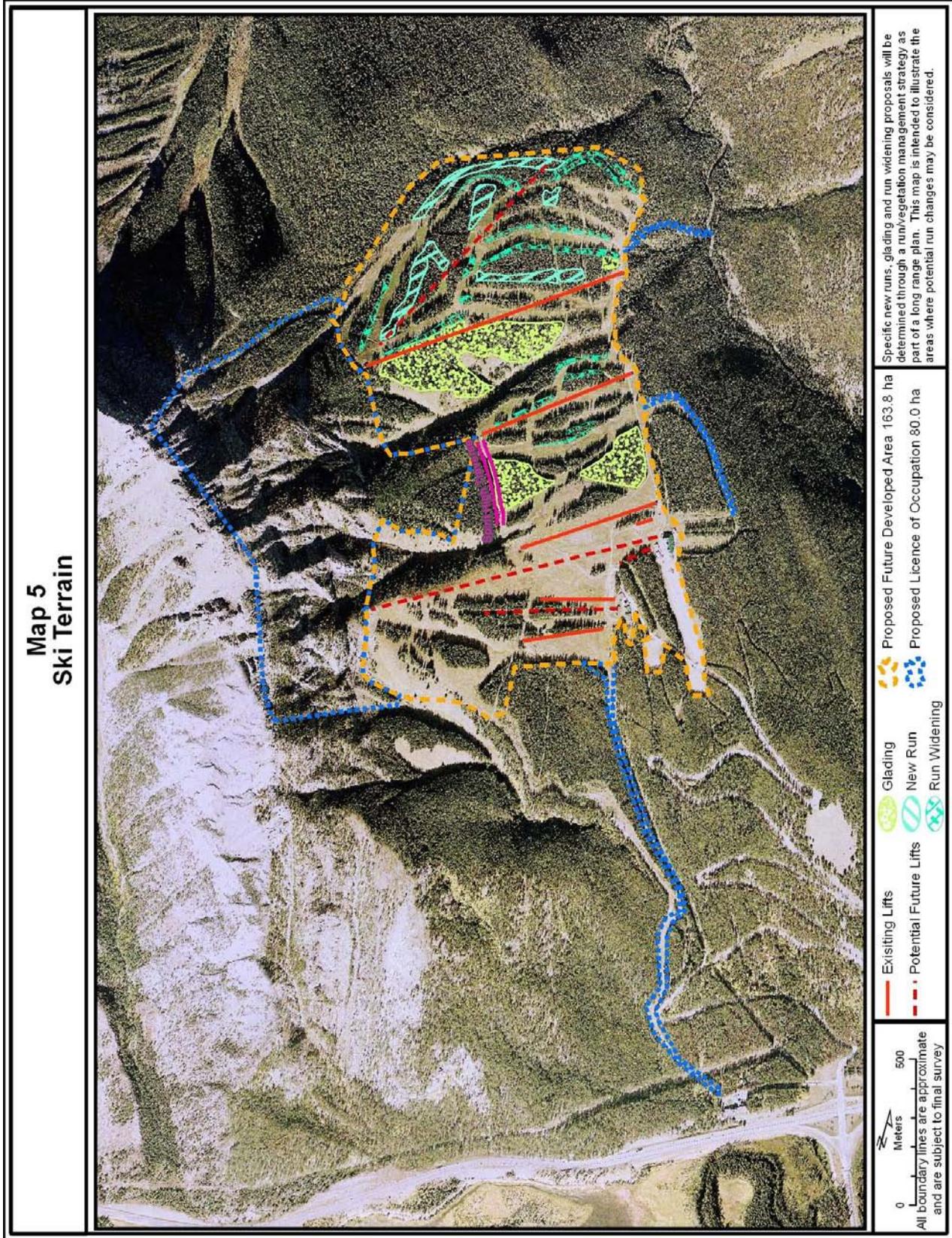
1. Consider new runs, glading and run widening within the adjusted Developed Area as part of a long-range plan prepared by Norquay. Map 5 reflects the types of changes that can be considered. Specific proposals the ski area may wish to advance in the future will need to be consistent with the negotiated ski terrain growth limit and a run/vegetation management strategy (see Section 5.10 – Vegetation Management). Development proposals advanced by Norquay and included in the run/vegetation management strategy will address the specific locations and character of potential ski terrain changes and may vary from what is illustrated on Map 5.



2. Ensure all new runs, glading and run widening meet the ecological management parameters and reflect the run/vegetation management strategy.
3. Allow off-piste skiing to continue in the steeper terrain and cliffs above the top terminals of lifts. This will be managed through a licence of occupation for the cliff area.
4. Apply *Best Management practices for Development at Ski Areas in Banff and Jasper national Parks of Canada* to glading initiatives and to address viewscape issues.

Exception to the Ski Area Management Guidelines

1. Consider the addition of new ski terrain at the northern edge of the Mystic Ridge area subject to:
 - the run/vegetation management strategy;
 - ensuring the lease boundary reduction is in place; and
 - advancing the initiative in a long-range plan.





5.5 Visitor Safety – Ski Terrain Modification

“Significant terrain modification will be prohibited. No new alpine ski ways will be permitted. Existing ski ways can be improved to address skier safety, terrain stability and aesthetic issues. Changes must minimize ground disturbances, address aesthetic impacts and be reversible.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 4)

Existing Situation

The main terrain challenge for the ski area is facilitating beginner and lower intermediate skier movement off of the Spirit Chairlift. The Spirit High Traverse is narrow and ends near the bottom of a steep avalanche gully. Significant terrain modification has taken place in the past to create a berm to contain avalanches to the gully. Improving the ski way would address safety concerns and enhance connections to beginner and intermediate ski terrain. The egresses from the Spirit and Mystic Chairlifts are challenging for some skiers. In addition the unload area of the Cascade Chairlift would benefit from widening to reduce skier congestion and enhance safety.

In the sub-alpine, the relative ease of reclamation permits flexibility in the scope and nature of terrain modification.

Objectives

- *Retain the natural look and feel of the terrain;*
- *Maintain or restore continuous vegetation cover;*
- *Reduce erosion, improve slope stability and minimize impacts on vegetation; and*
- *Improve safety for skiers.*

Site Guidelines

1. Consider minor terrain modification only where essential for skier safety, to resolve environmental issues or to make small-scale adjustments that improve the skiing experience.
2. Prohibit major modifications that are primarily intended to change the nature of the run and that would result in large scale re-grading unless the initiative is noted as an exception below.
3. Limit terrain modification to stable slopes where reclamation is assured.
4. Consider a greater degree of terrain modification where terrain is already heavily disturbed if it improves erosion control and aesthetics, and respects the ecological parameters.
5. Consider minor terrain modifications and improvements to existing drainage installations and the installation of new systems to reduce erosion and icing upon approval of these site guidelines.
6. Apply the criteria outlined in Appendix 2 to classify terrain modification as either minor or major.
7. Require site-specific investigations of proposals to evaluate their appropriateness, scope and suitability of terrain.
8. Apply the *Best Management Practices for Development at Ski Areas in Banff and Jasper National Parks of Canada*.
9. Ensure firm commitments for rehabilitation.
10. Design new ski runs to avoid the need for major terrain modifications.



Exception to the Ski Area Management Guidelines

1. Consider a significant terrain modification to improve the Spirit High Traverse subject to Norquay:
 - fully exploring alternatives including the potential to restore the area to a more natural grade and rehabilitating the area with native vegetation;
 - ensuring the lease boundary reduction is in place; and
 - advancing the initiative in a long-range plan.

5.6 Snowmaking

“Expansion, modification or introduction of snowmaking can be considered. Long-term decisions on snowmaking will be made in the long range planning process. Where applicable, long-term water withdrawal limits and protocols will be established to ensure minimum stream flows are maintained and a healthy aquatic environment. Limits and protocols will be subject to review and adjustment based on the hydrological information available at the time the application for a water permit is sought. Ongoing monitoring will be required. Snowmaking operations will be addressed as part of the Best Management Practices component of the Long-Range Plan.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 4 & 5)

Existing Situation

Norquay has a significant snowmaking operation that is central to its overall operation. It relies on snowmaking most years to cover its beginner and intermediate terrain. The main concern for the ski area is that the infrastructure that supports the system limits the ski area’s ability to cover terrain in an efficient manner. The ski area would like to make more snow earlier in the year at a quicker rate while respecting existing water permit limits and conditions. Improvements to the infrastructure are likely to substantially reduce operating costs.

Some major erosion gullies have been created below the Mystic Chair and along the waterlines into Forty Mile Creek.

Water to support snowmaking comes from Forty Mile Creek. Currently water withdrawal is managed by the 90/10 rule. It limits withdrawals to up to 10% of the mean (average) daily flow. If the instantaneous flow on any given day falls below the 90% exceedence flow number (value) for that day, all withdrawals must cease, until the flow comes back above the exceedence value. As flows near the exceedence number, only the difference between the current flow and the exceedence value may be withdrawn.

A small reservoir is located in the foundations of one of the existing buildings.

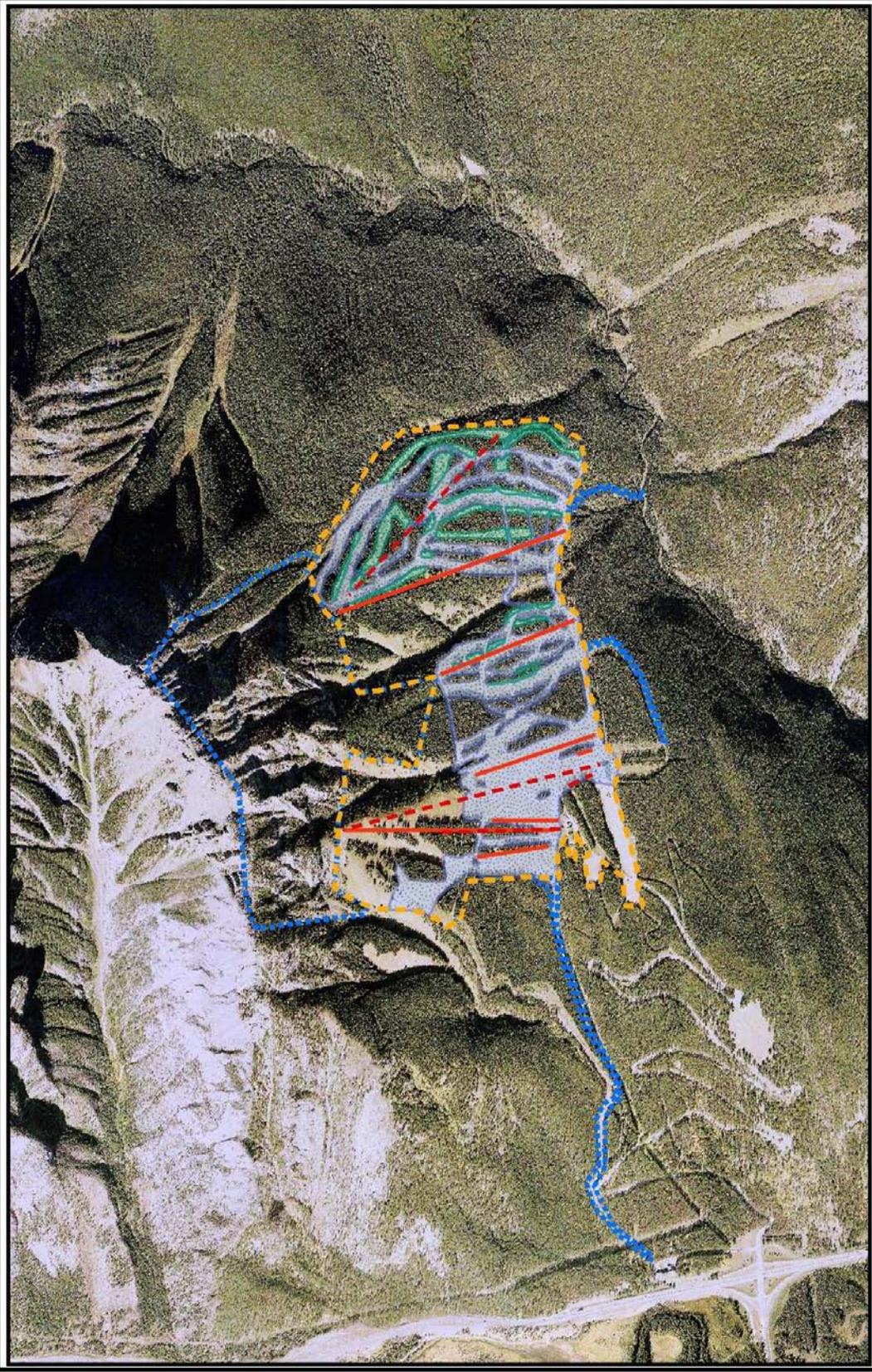
Map 6 shows the area currently covered by snowmaking and the potential area for expansion.

Objectives

- *Protect vegetation, aquatic environments and wildlife;*
- *Provide early season coverage to contribute to a successful Christmas season and quality skiing experience; and*
- *Ensure the highest levels of efficiency in terms of power demand, emissions and fuel consumption (e.g. machine grooming).*



Map 6
Snowmaking



0 500 Meters
All boundary lines are approximate and are subject to final survey

-  Existing Lifts
-  Potential Future Lifts
-  Proposed Licence of Occupation
-  Existing Snowmaking
-  Potential Snowmaking Expansion
-  Proposed Future Developed Area 163.8 ha

This map illustrates potential areas of snow making expansion. New terrain covered by snow making will be subject to the run/vegetation and water management strategy.



Site Guidelines

1. Consider improvements to the existing infrastructure following the approval of these site guidelines subject to the requirement that existing water withdrawal limits are respected.
2. Consider expansion of the terrain covered by snowmaking as part of a long-range plan.
3. Consider the expansion of the water reservoir. The development of additional reservoirs, and associated major terrain modification, may be considered as a future potential exception if substantial improvement to the Forty Mile Creek aquatic habitat can be achieved through improved stream flows during low flow periods.
4. Prepare a site specific strategy for water withdrawal and water management as part of a long-range plan. This strategy is to address:
 - the ecological management parameters;
 - proposals for expansion of terrain covered by snowmaking;
 - impact on potable water and waste water management;
 - water and energy conservation;
 - water reservoir(s);
 - where the long-range plan proposes to increase water withdrawal limits or adjust conditions the review of the water limits will:
 - allow for seasonal variations in downstream water flow that corresponds to the needs of aquatic life and riparian communities.
 - consider in-stream flow, seasonal flow and natural drainage (specific hydrological studies will need to be undertaken to adequately determine requirements).
 - surface runoff erosion and sedimentation control measures;
 - potential use of additives;
 - potential adjustments that may be necessary as a result of climate change; and
 - fire suppression requirements.
5. Apply an adaptive management approach to implementing the water management strategy. An outline of the approach will be included in the water management strategy.
6. Consider the use of structures to reduce the need for snowmaking.
7. Rehabilitate major existing erosion areas associated with the existing snowmaking system prior to expansion of terrain covered by snowmaking. A priority is to mitigate the erosion that has occurred along the water line to 40 Mile Creek.
8. Develop a best management practice for snowmaking operations to ensure adequate snow cover in order to protect native vegetation as part of snowmaking infrastructure improvements.



5.7 Facilities – Public Buildings, Accommodation and Operational Buildings

“Within the Developed Area the following can be considered:

- *increase in day lodge and commercial building size;*
- *relocation and replacement of existing lodges and facilities; and,*
- *new warming huts and washroom facilities.*

Development of new on-hill commercial accommodation will not be permitted. New facilities, including day lodges, will not be permitted. Exceptions will not be considered for on-hill accommodation.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 4 & 5)

Existing Situation

Public commercial space at Norquay includes two day lodges (both at the base of the ski area), tea house at the top of the North American lift, day care building, medical facilities, ski school building and administrative offices. The old day lodge at the base of the North American lift is currently primarily used to support racing activity and tubing, recently introduced on a trial basis. The tea house is currently not operational in the winter but it could reopen for winter operations at the ski area’s discretion.

In the early days of the ski area’s operation, ski jumping was a major activity at the ski area. Facilities built during this era are no longer in use or maintained and are a potential safety hazard.

There is no visitor accommodation on the hill. Accommodation is available in the Town of Banff and nearby OCAs and in Canmore. The existing supply of rooms in the townsite and OCAs, added to potential growth in the region, is anticipated to be adequate for any expansion of use at the ski area.

Buildings required for the operation of the ski hill are spread throughout the site. These include maintenance yards/buildings and offices.

Map 7 shows existing facilities at the base area and illustrates the types of changes that may be considered in the future.

Objectives

- *Provide convenient guest services;*
- *Meet basic visitor needs (adequate washrooms, food services, ‘brown bag’ space, storage, timely service, information, equipment, supplies etc);*
- *Allow modernization and expansion of facilities within the negotiated, permanent growth limits;*
- *Ensure expansion of the ski area compliments commercial growth limits established elsewhere in the park to help address potential cumulative effects issues;*
- *Respect the cultural heritage values of sites and built facilities;*
- *Consolidate buildings where practical to minimize the footprint of development; and*
- *Provide effective and efficient operational support facilities.*

Site Guidelines⁹

1. Consider expansion of commercial space within the negotiated growth limits if advanced through a long-range plan and the balance of resort components is maintained.

⁹ See also Section 5.12 for direction related to architectural guidelines.

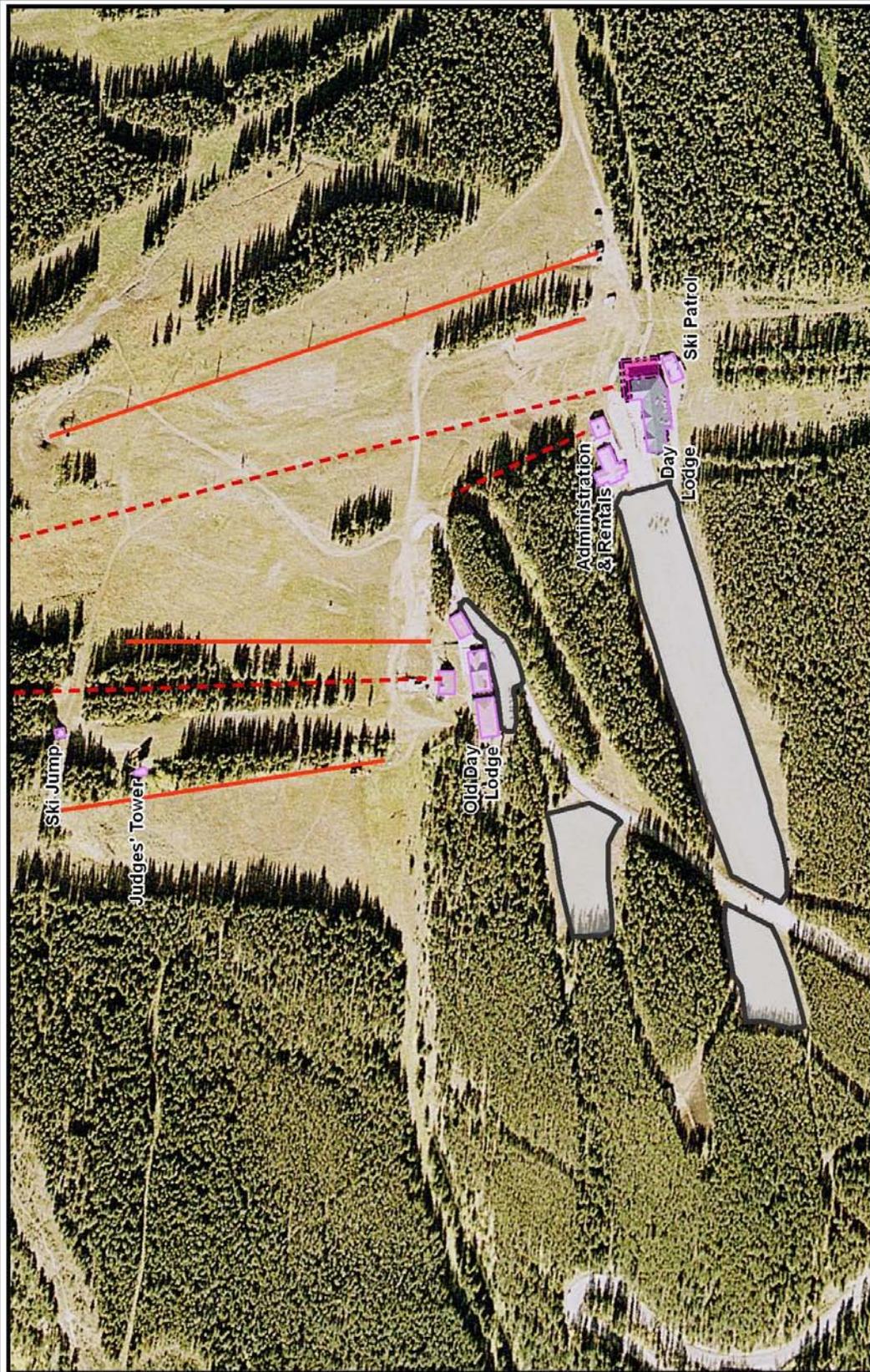


2. Renovations to existing buildings that change functions and space allocations but are not linked to other projects or do not increase commercial space can be considered following the approval of these site guidelines.
3. Consider proposals for expansion to the tea house, to support winter operations, and related minor terrain modification as part of a long-range plan if the proposal is consistent with the negotiated growth limits for commercial space. Expansion proposals that are directly related to a summer use proposal can only take place following approval of a long-range plan for related summer use activities. Norquay, should they advance a proposal, will identify options for addressing viewscape issues, integrating the development into the landscape and respecting any identified heritage values of the existing facility.
4. Encourage the addition of space for an interpretive exhibit at the main day lodge to showcase natural and cultural heritage values of Banff as a national park and World Heritage Site. This space will not be considered commercial space.
5. Prohibit the development of on-hill visitor accommodation and new daylodges.
6. Consider small confection stands, washrooms and picnic tables for winter use adjacent to the bottom terminal of lifts upon approval of these site guidelines. Locations at upper lift terminals can be considered where there is sufficient space and does not require terrain modification.
7. Encourage the consolidation of facilities. Decommission and remove buildings no longer needed.
8. Determine the historic value of the ski jumps, tea house and original daylodge.¹⁰ If the facilities have historical value, require the development of a strategy for the future of the facilities that respects and interprets the heritage values prior to authorizing any potential adjustments to the facilities. Until this review is completed, alterations of these facilities will not be permitted. If it is determined the facilities do not have heritage value and they are no longer needed, then remove them and rehabilitate the area.
9. Address public safety issues if one or more ski jumps are retained.
10. Incorporate energy conservation and efficiency in building renovations.

¹⁰ Anticipated to be a joint effort between the ski area and Parks Canada.



Map 7 Parking & Base Area



0 Meters 100
 All boundary lines are approximate and are subject to final survey

Existing Lifts
 Potential Future Lifts

Existing Buildings
 Potential Day Lodge Addition

Existing Parking

This map reflects the potential types of initiative the ski area may wish to advance in the future that can be considered should the conditions in the site guidelines be met. It is anticipated that specific proposals will vary from this illustration.



5.8 Parking and Access

“Use of mass transit will be the primary means to address parking issues. Parking lot reconfiguration and expansion within the existing Developed Area can be considered within terrain and ecological limitations. New skiing parking nodes will be prohibited. Use of existing parking lots off-site can be considered, preferably in the communities, in order to support shuttle bus services.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 4)

Existing Situation

Norquay's parking lots can accommodate some 850 vehicles including 10 buses. About 260 skiers (10%) arrive at the ski area by bus. The size of the parking lots is adequate to meet the ski area's existing needs.

The year round access road serves both the ski area and visitors who are sightseeing, hiking, biking, horseback riding and cross country skiing. The parking lot is used as a trail head by Parks Canada for visitors using the backcountry. The road appears to be able to handle a potential increase in traffic up to a level consistent with the design capacity of the ski area, however winter use of the road has a cumulative effect on the effectiveness of the Cascade wildlife corridor and needs to be conservatively managed.

In the past, there have been discussions about the possibility of pursuing a gondola/tram from the Town of Banff (or vicinity) to the ski area to improve linkages, promote the use of the ski area and to help reduce impacts to wildlife. While there are a range of issues associated with a potential gondola/tram (parking in the community, crossing over the TCH, etc), it would have the potential to enhance visitor experience, contribute to ecological integrity by significantly reducing human use in the Cascade corridor, and contribute to the community's and park efforts to explore alternative mass transportation systems. The park management plan and Lands Around the Town of Banff Area Strategy support consideration of such a system and indicate the feasibility of such a lift can be explored. The ski area would like to consider the development of this lift. The lift alignment for a gondola/tram connecting to the community would be outside of the existing ski area lease. Decreasing the number of vehicles on the road (ie more buses, gondola) would reduce disturbance and displacement of wildlife. As such this potential initiative could represent an environmental improvement if it were to replace a substantial amount of existing vehicle traffic on the access road.

Throughout the leasehold there are a variety of service roads and trails used to facilitate maintenance of facilities.

See also summer use section (5.11).

Objectives

- *Promote use of buses and other forms of mass transit;*
- *Minimize vehicle traffic in the Cascade wildlife corridor especially during wildlife movement periods;*
- *Use existing parking lots effectively;*
- *Minimize the impact of the parking lot and service roads used (e.g. contaminates, erosion); and*
- *Ensure there is no net increase in operational service roads/trails to lifts and facilities.*

Site Guidelines

1. Prohibit parking lot expansion and parking on the access road outside of the lease.
2. Incorporate the use of mass transportation systems that support improved linkages to the community, reduce wildlife disturbances and that address the needs of different user groups to the area. A transportation strategy will be included in the first new long-range plan that advances ski area expansion initiatives or changes to summer use (see Summer Use - Section 5.11). The transportation strategy will ensure that traffic volumes in all seasons are consistent with the road classification standards currently



defined for the Mt. Norquay access road. Mass transit will be the means to support increased skier visits above 2009 levels and reducing existing traffic-related impacts of the access road. The ski area will work with the regional community to plan and develop transportation solutions.

3. Consider the potential of authorizing a tramway/gondola from Town of Banff to the ski area. Parks Canada will work with Norquay and the Town of Banff to outline the approach for assessing the feasibility of such a lift, process, and responsibilities. It is anticipated that Norquay will need to take the lead on the initiative.
4. Prohibit an increase in the capacity of the access road.
5. Ensure effective utilization of available car parking.
6. Include rehabilitation strategies to address issues such as erosion, water and vegetation in any plans for expanding the parking lots.
7. Where possible, consolidate roads/trails used for the operation of the ski hill and rehabilitate roads/trails that are no longer required.
8. Address the impact of using roads for operational purposes (e.g. erosion).
9. Encourage action items 6 through 9 to take place following the approval of these site guidelines.

5.9 Winter Activities

“In winter new activities will be consistent with the park management plan or related park wide direction. Motorized (excluding ski lifts) activities will not be permitted. Activities that take place inside commercial buildings and non-motorized activities, that take place on ski runs and that involve sliding downhill similar to skiing and snowboarding, can be considered outside of a Long-Range Plan subject to Superintendent approval.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 6 & 7)

Existing Situation

Current winter activities include downhill skiing and snowboarding, snow biking, tubing, access to adjacent backcountry skiing, ski races and ski related sporting events. Offpiste skiing takes place above some of the ski lift top terminals. Ski jumping used to take place. The season of operation is generally from early November to end of April, depending on snow conditions.

Night skiing occurs on the Cascade Chairlift Friday nights (4:00 PM to 10:00 PM) and on eight Wednesday nights from January to March with periodic evening skiing on special occasions. The ski area may wish to expand the number nights that skiing takes place. Planning proposals will need to consider the evening wildlife crepuscular period and develop approaches that respond to the relevant ecological management parameters. November to mid February when peak late afternoon traffic flows directly overlap with the crepuscular period is the season of greatest concern.

The ski area would like to diversify its winter opportunities by providing snowshoeing (on and off lease) and to continue offer tubing. In the future the ski area may wish to pursue new activities and special events.

Objectives

- *Support a range of activities consistent with a national park setting;*
- *Integrate activities at the ski area with those offered elsewhere in the park; and*
- *Minimize impacts on wildlife.*



Site Guidelines

1. Allow the following activities and services to occur on the lease: downhill skiing, snowboarding, regional ski races, ski jumping and ski related sporting events, cross-country skiing, snowshoeing, tubing -- along with the services and facilities they require -- food services, ski school, day care, rentals and other retail services that directly support skiing/boarding. Off-piste skiing can occur in the licence of occupation area above the top terminals of ski lifts.
2. Allow night skiing on the Cascade Chair to continue with the following conditions:
 - Limit hours of operation to 4 PM to 10 PM on Friday nights, 8 Wednesday nights January to March and periodic other nights for functions approved by the Superintendent. Proposals for adjustment can be considered in a long-range plan and must demonstrate that vehicle traffic will be maintained at levels that ensure wildlife security in the Cascade corridor during the evening twilight crepuscular period. Changes will be managed based on an adaptive management approach (monitoring and adjustment as necessary to ensure wildlife issues are being effectively addressed).
 - Proposals for expanding the terrain used for night skiing can be considered prior to a long-range plan but will require an environmental assessment.
3. Obtain Superintendent approval for off-lease activities and new activities (can occur prior to and upon approval of site guidelines).
4. Obtain the superintendent's approval for new special events that are inconsistent with the provisions in the lease and/or business licence, or that take place partially off the lease (can occur prior to and upon approval of site guidelines).
5. Develop and implement best management practices for race-course management and wildlife security as part of any proposal for race course improvements.
6. Develop and implement ski area specific best management practices for night skiing that addresses noise and dark sky standards as part of any proposal for expanding night skiing.



5.10 Vegetation Management

“The Long-Range Plan will include a run improvement and vegetation management strategy that ensures:

- *a sustainable alpine and forest ecosystem;*
- *preventing the spread of exotic non-native invasive plants and their elimination where practical;*
- *non-native species are not introduced;*
- *the reclamation of degraded landscapes, no longer in use, to natural conditions*
- *wildfire facility protection;*
- *the maintenance and enhancement (where practical) of wildlife habitat and movement in all seasons;*
- *the protection of habitat for species at risk;*
- *minimizing water erosion; and*
- *the maintenance and enhancement (where practical) of the health of aquatic ecosystems”*

(Ski Area Management Guidelines, Minister of Environment, 2006, page 3)

Existing Situation

There are concerns regarding invasive plant species, mountain pine beetle along the access road and ongoing fire suppression activities that have altered natural vegetation patterns, composition and structure.

Objectives

- *Restore natural vegetation patterns and composition;*
- *Minimize the potential for invasive non-native species to spread; and*
- *Reduce or eliminate erosion.*

Site Guidelines

1. Prepare a run improvement and vegetation management strategy¹¹ as part of a long-range plan for any proposed run widening, new run or glading. The strategy will:
 - adhere to the ecological management parameters;
 - integrate with broader landscape vegetation, fire and wildlife management strategies;
 - address all potential new glading, widening and runs;
 - identify approaches for the preservation of native vegetation and the use of native species in reclamation and restoration efforts;
 - identify and protect rare plant communities;
 - identify removal of priority invasive plant species;
 - reflect naturally and historically occurring vegetation patterns in the Mt. Norquay and Stoney Squaw area (through a spatial and compositional analysis);
 - reflect natural conditions;
 - maintain minimum snow depth, to protect vegetation, for grooming and skiing;
 - support objectives for wildlife habitat improvement;

¹¹ This is anticipated to be a joint effort between Parks Canada and the ski area.



- ensure facility protection from wildfire while maintaining a mosaic of forest class structure that reflects the historic fire regime;
- address fire prevention, suppression and apply 'FireSmart' principles;
- address erosion control and stabilization of eroded sites; and
- maintain natural food sources for valued ecosystem species.

The run improvement and vegetation management strategy is to consider:

- alternate run location and terrain design that minimize the need for the removal of existing ground cover and terrain modification – major terrain modification is to be avoided;
- the potential need for alternative tree removal practices such as cable or helicopter logging that protect anchoring vegetation, retain existing ground cover vegetation, and minimize the need for ground disturbance and reclamation; and
- specific criteria for glading and thinning consistent with naturally and historically occurring vegetation patterns in the Mt. Norquay area.

2. Apply *Best Management Practices for Development at Ski Areas in Banff and Jasper National Parks of Canada*.
3. Prepare an integrated pest management plan as part of the Environmental Management System if herbicide use is considered.

5.11 Summer Use

“Proposals for changes in summer use or new initiatives will only be considered where it can be clearly demonstrated that ecological issues can be successfully addressed. A precautionary approach will be applied to decisions on summer use.

In order to consider new summer use and changes to existing summer use, proposals must demonstrate that the following criteria will be met:

- *No significant increase in wildlife-human conflict, wildlife displacement, access to sensitive areas or in human caused wildlife mortality.*
- *Wildlife habitat and movement patterns are protected.*
- *Visitor use is concentrated to minimize wildlife impacts. There is no significant increase in access to sensitive areas nor increase in visitor use adjacent to the ski area.*
- *The focus is on learning about the park and world heritage site. Services and activities that are in direct support of facilitating visitor learning opportunities can also be considered. New activities will only be considered if they are consistent with the park management plan or related park wide direction.*
- *Education must be an essential aspect of any new summer use outside the base area.*
- *The experience reinforces the location in a national park.*
- *Potential impacts on other park users are satisfactorily addressed.*
- *Initiatives complement broader area land use strategies.*

Site Guidelines for each ski area will identify site-specific requirements. Decisions on summer use will be determined through a Long-Range Plan and application of the Canadian Environmental Assessment Act.

Where summer use is permitted it will be carefully managed to ensure ecological values are not compromised. Ongoing monitoring programs will be put in place to ensure ecological issues are being effectively addressed. Additional mitigations will be put in place if necessary.”



Existing Situation

Summer use is currently limited to the operation of the base lodge from mid June to mid October from 10:00 AM to 7:00 PM and a maximum of 40 private functions and special events at the base area (primarily inside the new day lodge) per summer.

The parking lot is the starting point for trails up Forty Mile Creek. Mountain biking trails on Stoney Sqaw are accessed from the parking lot. The number of people hiking and climbing on the lease, other than those accessing designated backcountry trails, is currently low.

As part of the ski areas 1989 long-range plan, summer use of the North American lift was discontinued. This same plan also outlined the potential development of the Skyline Ridge area (now known as Mystic Ridge). This area was added to the ski area to provide additional intermediate ski terrain. Although there is some perception that the long-range plan required discontinuing summer use in exchange for the development of Mystic Ridge, this was not case. The long-range plan and the supporting environmental assessment did not link the discontinuing of summer use of lifts to the development of Mystic Ridge. The long-range plan environmental assessment noted there would be a decrease in visitor use but made little reference to the ecological value of discontinuing summer use. Rather it indicates "*abandonment of the North American run and removal of south facing slopes from consideration from development would be an important component of the environmental protection aspect of the plan.*" There was no limitation placed on hiking or other public activities on the lease as part of the plan.

In 1997, the park management plan identified that 'summer use of lifts was prohibited' because it was 'inconsistent with the approved long-range plan'. Over time it is common for government policies to evolve as circumstances change and new information and data becomes available. In this case, and as noted above, the 2006 *Ski Area Management Guidelines* set in place by the Minister responsible for Canada's national parks, specifically allow for changes in summer use subject to demonstrating certain criteria can be met in a new long range plan. In addition, the 2010 park management plan which has now replaced the earlier plan no longer identifies the limitation related to summer use. It reflects current environmental conditions, many past successful ecological restoration initiatives, new environmental requirements and integrating the various elements of Parks Canada's mandate and Government of Canada's priorities. The *Ski Area Management Guidelines* and the 2010 Banff National Park of Canada Management Plan are now the basis for making decisions at the ski areas.

The development of Mystic Ridge has likely contributed to habitat improvement on the leasehold – including habitat for grizzly bears. A contributing factor to this is that, although hiking is permitted on the lease, little human activity takes place on Mystic Ridge.

The ski area would like to reintroduce summer use of lifts; develop a via ferrata in the cliffs above and to the north of the tea house; renovate, reopen and potentially expand the tea house; develop an aerial adventure park; and provide mountain biking opportunities. Mountain biking, via ferrata, zip lining, canopy touring and aerial adventure parks are activities that have been assessed nationally to determine their potential to take place in Parks Canada's protected places. Based on the national decisions a local assessment of these activities has been undertaken in the park. As part of this assessment, some of these activities have been recently approved at a park-wide level. Specific park-wide guidelines are being established to guide the review of potential proposals. A decision has been made to consider potential via ferrata proposals in Zones III and IV¹². The Norquay ski area is located in Zone IV. Therefore Norquay could advance proposals for a via ferrata and other new activities consistent with the park-wide direction as part of a long-range plan and subject to measures that enhance the ecological integrity of the lease and surrounding area.

The Norquay lease includes good quality habitat for a variety of wildlife species including grizzly bear, cougar, wolf, lynx, elk, bighorn sheep, mule deer and white-tailed deer. Together with the Minnewanka

¹² The zoning system for the park is described in the park management plan.



Loop area, Norquay has the highest levels of grizzly bear activity in the lands around the Town of Banff management area. The ski area also lies adjacent to and partly in the Cascade wildlife corridor. Significant effort has been spent in restoring this corridor due to its regional importance. Bighorn sheep lambing, elk calving and other wildlife rearing areas are present on the lease. The period between May 24 and June 20 is considered to be particularly sensitive.

Objectives

- *Improve wildlife habitat and habitat connectivity;*
- *Minimize the impact of construction, maintenance and visitor activities on wildlife habitat effectiveness, habituation and displacement;*
- *Enhance protection of grizzly bear other sensitive species such as mountain goat, raptors and bighorn sheep on and near the lease area; and*
- *Provide visitor opportunities that contribute to achieving the protection objectives, that facilitate a meaningful national park experience and that promote understanding and appreciation.*

Site Guidelines

1. Continue to apply the existing limitations on summer use until such time as they are replaced by a new approved long-range plan, this includes:
 - Limiting base lodge operation to June 15 to October 15 between 10 AM to 7 PM daily for food, beverage and retail sales (souvenirs, clothing).
 - Allowing an annual maximum of 40 private functions, within the above seasonal period, in the day lodge, with no more than two private functions per week.
2. Consider the following activities: operation of the day lodge, site seeing, operation of the tea house, hiking/climbing in specific locations, education and special events functions and new recreational activities that are consistent with park-wide direction.
3. Consider proposed changes to summer use, including a via ferrata and other new recreational activities consistent with park-wide direction, only through a long-range plan and application of the CEAA. The criteria identified in the *Ski Area Management Guidelines* and the ecological management parameters of these site guidelines (Section 4.2) must be met.
4. Require the leasehold reduction, licences of occupation and a new lease **to be in place** (signed and approved) as noted in Section 5.1 prior to changes to summer use being implemented should they be approved.
5. Ensure proposals for changes in summer use include the following environmental improvements¹³:
 - a). reduction in the frequency and number of disturbances through the Cascade wildlife corridor by restricting traffic on the Norquay access road during night-time and crepuscular periods and reducing the existing overall frequency of disturbance during daylight hours based on the baseline year of 2009. Initiatives that are designed to improve the effectiveness of the Cascade wildlife

¹³ The environmental improvements are anticipated to be collaborative efforts between the ski area and Parks Canada. It is anticipated that Parks Canada will take the lead on off lease vegetation improvements and additional wildlife trails while the ski area is anticipated to take the lead on implementation of a mass transit system. In terms of transportation, Parks Canada's primary focus will be ensuring the road is adequate to support bus traffic.



corridor are anticipated to be achieved through a collaborative approach between Norquay, Parks Canada and others. This will include:

- implementation of a mass transit system for access to the ski area that accommodates the increased number of summer visitors to the ski area and results in no increase in disturbance events (basic mitigation required to support summer use operations);
- keeping vehicle disturbance events below wildlife disturbance thresholds levels (25 events per hour) prior to 9 am and after 6 pm from June to the end of August and prior to 9 am to 5 pm through September and October; and
- a 5% reduction in vehicle disturbance events, averaged on a monthly basis, between 9 am and 6 pm (5 pm in September and October).

In the event that general visitor use of the access road increases (non ski area visitors) in the future and negates the improvements, Parks Canada would pursue solutions to address the issues, including the potential of traffic management.

The development of a monitoring and reporting framework to measure success in mitigating the impact of changes to summer use on the wildlife corridor and achieving the improvements will be part of the long-range plan for summer use.

- b). restoration of natural vegetation patterns, composition and structure in and adjacent to the lease through an enhanced run/vegetation management strategy to the one outlined in Section 5.10 – Vegetation Management by:
 - restoring open habitat patches (eg. Douglas fir savannah, montane grassland) between the TCH and the leasehold through mechanical clearing;
 - prescribed burning near the leasehold; and
 - wildlife habitat improvements off the leasehold.
 - c). construction of one or more additional wildlife trails across Stoney Squaw.
6. Address the ecological improvements noted in 4 above and their implementation in a long-range plan. Environmental improvements will need to be in place prior to implementing approved changes to summer use.
 7. Ensure environmental improvement initiatives and ski area initiatives support efforts to keep human use away from wildlife crossing structures along the TCH in the Cascade-Norquay-Mt Edith area;
 8. Apply the following restrictions to any proposed changes to summer use that involves operation of a ski lift in order to ensure the environmental improvements noted in 4 above are not compromised, to contribute to a quality national park visitor experience and to ensure visitor safety:
 - a). put in place measures to ensure effective separation of people and wildlife at the base area, to prevent wildlife habituation and to protect visitors. This will include a variety of mitigations such as: fencing; signage; education; food, garbage and waste control; etc. Where fencing is used, Parks Canada will contribute to the portion of the costs related to ensuring access to park trails that cross the lease;
 - b). prohibit hiking and other activities between the tea house/top terminal (base of cliffs across the upper slopes) and the base area/bottom of all ski runs. The fence system and visitor management on the lease will be designed to allow continued access to existing park trails adjacent to the lease for hiking, horseback riding and mountain biking;



- c). consider authorizing the use of only the North American lift or its replacement. If the lift is replaced, it must be 'enclosed' (bubble or gondola) during the summer operating period;
- d). ensure potential activities at the tea house and above are designed to prevent habituation and disturbance of wildlife. The ski area will investigate the presence of goats and/or nesting raptors and bighorn sheep lambing area on the cliffs above existing lifts prior to preparing a long-range plan. Parks Canada will not authorize development or activities that would have the effect of displacing sensitive species from key habitat;
- e). limit the public season of operation of the lift and the tea house to approximately mid June to mid October. The lift will not operate from the end of the ski season to the start of summer operating season. Specific timing to be determined in the environmental assessment of the long-range plan. Operation of the main day lodge can occur year round;
- f). limit daily visitor and facility hours to 9:00 AM to approximately 2.5 hours before sunset to allow visitors to travel back through the wildlife corridor well before sunset. Specific hours of operation will be determined through a long-range plan and application of CEAA. This limitation will be periodically reviewed through ongoing monitoring and adaptive management and adjustment may be considered depending on wildlife issues and ensuring the crepuscular period is not compromised (including the improvements outlined in 5a);
- g). limit evening functions in the main day lodge to 40 events from the first of May through the end of October with no more than two functions in any given week. Late evening functions must include provision for mass transit of participants through the Cascade wildlife corridor. Functions will be limited to using inside space, the existing day lodge deck and paved tarmac in front of the daylodge;
- h). prohibit overnight use;
- i). Consider the introduction of free ride and bike park proposals consistent with the park-wide direction only within the fenced base area; downhill bicycling will not be permitted;
- j). put in place protocols/schedules, similar to those used by the Lake Louise ski area, for staff working on construction and maintenance (including lift maintenance) designed to minimize their impact on grizzly bears and other wildlife; and
- k). implement an ongoing staff education program for all employees to ensure they are aware and understand the importance of the management strategies for the area;
- l). implement an interpretation program for all guests and components of the Norquay experience that delivers key messages identified by Parks Canada. Education must be a fundamental aspect of all visitor activities. An interpretation plan and education program for staff will be a component of the long-range plan that addresses changes in summer use. The interpretation and education program must be implemented in tandem with changes to summer use;
- m). apply an adaptive management approach to summer use operational initiatives (monitoring and adjustment as necessary to ensure wildlife issues are being effectively addressed). The adaptive management approach will be outlined in the long-range plan.
- n). identify fire prevention, suppression and emergency lift evacuation procedures as part of the long-range plan that proposes summer use of a lift; and
- o). apply any additional requirements that may be identified through the application of CEAA to the long-range plan.



9. Consider the improvement of the former turn around loop to the east of the old day lodge to support a transportation system. This turnaround is to only support traffic circulation and is not to be used for parking. If it is no longer required, it is to be closed and rehabilitated.
10. Establish baseline information on existing levels of visitor use at the ski area for their existing summer operation as part of any proposal for changes.
11. Address potential conflicts and linkages with other visitor opportunities off the leasehold as part of long-range plan proposals;
12. Address all potential changes in activities and use including special events as part of any proposal for changes in summer use;
13. Require the superintendent's approval for new special events or programming changes that are inconsistent with the provisions in the lease, approved long-range plan and business licence or take place partially off the lease.

Note: An expanded summer operation that includes a siteseeing operation of the North American lift (or its replacement) has the potential to be a positive enhancement of visitor opportunities in the park. It also has the potential to result in unacceptable ecological impacts. However, a carefully managed suite of ecological initiatives has the potential to result in improved effectiveness of the Cascade wildlife corridor and improved wildlife habitat for a range of species, including grizzly bears. To support these improvements, a suite of wildlife mitigations related to predator/prey relationships, habituation and displacement will need to be central components of any proposal for changes in use. In order for the ski area to obtain approval to implement changes to summer use, Norquay will need to demonstrate that: the ecological improvements have been achieved; the criteria in the *Ski Area Management Guidelines* have been met; there is consistency with the direction in the park management plan; the conditions in the site guidelines are met; and the mitigations and planning requirement identified in the associated strategic environmental assessment are met.

A number of the environmental improvements identified on the preceding pages occur outside of the Norquay leasehold. However, most improvements to wildlife habitat, movement routes and vegetation in the immediate vicinity of the lease and on the lease are integrally linked. To be effective and achieve the most improvement, one is best done with the other. They need to be advanced in an integrated and mutually supportive manner. The ski area's tangible support and participation of these improvements on and off the lease are required to achieving the environmental improvements. Ski area development and use can be managed to contribute to broader ecosystem management objectives while cumulative effects of all activities regardless of who does them make it possible to consider modified use at the ski area. The *Ski Area Management Guidelines* support these broader ecological initiatives for areas directly adjacent to the ski area's lease.

5.12 National Park Experience and Education

"The nature of ski area operations and visitor experiences will reflect and reinforce its location in a national park and world heritage site consistent with expectations for communities and outlying commercial accommodation.

Ski areas will be encouraged to provide winter educational opportunities that focus on the heritage values of the park and world heritage site as a component of the skiing/snowboarding experience.

(Ski Area Management Guidelines, Minister of Environment, 2006, page 6 & 7)



Existing Situation

The nature of the ski hill's facilities, services and operational practices can contribute directly to a unique and memorable national park experience.

Currently, skiers and snowboarders have little opportunity to learn about the area's heritage at the ski area. A unifying architectural theme and guidelines on views, noise, lighting and signs would contribute to a better understanding that the ski hill is in a national park.

Objectives

- *Reflect the location of the ski area in a national park; and*
- *Incorporate heritage tourism as an important aspect of the ski hill's winter operation.*

Site Guidelines

1. Prepare a heritage tourism strategy¹⁴, including approaches to winter education as a component of the ski area's first long-range plan. Offer Norquay visitors and staff a winter education program that is designed to celebrate the natural and cultural heritage values of the national park and the Canadian Rocky Mountain Parks World Heritage Site, that promotes environmental stewardship, and that supports visitor safety initiatives.
2. Develop an architectural theme for new buildings and exterior renovations of existing buildings as part of any proposal for building improvements to facilitate the review of development projects. Include sign guidelines as part of the architectural theme. Sponsorship on permanent signs can continue but the scope and scale will be addressed in the sign guidelines.
3. Develop and implement site-specific best management practices for noise and external lighting that apply dark sky principles. Apply existing mountain park ski area best management practices for viewsapes.

5.13 Environmental Stewardship

“An environmental management system and monitoring system, consistent with the environmental policies and the principles identified in Sustainable Slopes, The Environmental Charter for Ski Areas, will be a component of a Long-Range Plan.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 7)

Existing Situation

A formal environmental management strategy has not been developed for the ski area.

Objectives

- *Provide leadership in environmental stewardship;*
- *Minimize environmental impacts; and*
- *Make the ski area a model of environmental stewardship excellence (energy efficient, water conservation, integration with landscape, etc).*

¹⁴ It is anticipated the Parks Canada will assist in preparing the strategy and in its implementation.



Site Guidelines

1. Include an environmental management and monitoring system in the ski area's first long-range plan based on the *Sustainable Slopes, Environmental Charter for Ski Areas*¹⁵. This will be limited to addressing:
 - energy and fuel conservation;
 - green house gases;
 - waste-water management;
 - water conservation and quality;
 - waste management; and
 - integrated pest management.

The environmental management strategy will include a brief description of: the existing situation; objectives/targets; actions to achieve targets (including best management practices where applicable); time frames to implement the actions; and ongoing monitoring.

5.14 Employee Accommodation

“New employee housing, except those required for security reasons, will be provided in the communities.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 4)

Existing Situation

Housing for the ski area's approximately 200 employees in winter and 11 summer employees is located in the Banff and Canmore area. There is no on-hill staff accommodation. A maximum of 20 additional winter employees are expected if the negotiated growth limits outlined in the site guidelines are reached. The specific number of additional summer employees depends on the scope and nature of approved summer use changes.

Objective

- *Ensure sufficient and adequate housing is available for ski area employees.*

Site Guidelines

1. Continue to meet staff accommodation needs in nearby communities.
2. Ensure appropriate arrangements are in place to address staff housing and their transportation needs prior to any project that results in an increase in ski area employees.

¹⁵ The Sustainable Slopes charter is a voluntary program that was developed by the USA National Ski Areas Association.



5.15 Utilities and Infrastructure

Ski Area Management Guidelines

“Infrastructure (e.g. water, sewer, power) capacity increase can be considered. Infrastructure must have sufficient capacity and meet environmental standards before ski area growth can take place.

Exceptions will not be considered for infrastructure requirements.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 5)

Existing Situation

There are no major issues associated with power or waste water management systems.

Objective

- *Ensure utilities and infrastructure are environmentally friendly, efficient and can support growth.*

Site Guidelines

1. Ensure adequate energy is available before projects requiring additional power are implemented.
2. Consider the use of environmentally friendly alternative energy sources.
3. Ensure long-range plans outline projected waste water volumes and that they fall within the capacity of the Town of Banff’s waste water treatment system.

6.0 LONG - RANGE PLANS AND CONSULTATION

Long range plans are prepared by the ski area and are the means for them to advance expansion related projects and changes in summer use. They describe the specific projects the ski area proposes to undertake within a specified time frame at a pre-design level of detail. They are subject to the application of the CEAA, which at the time of preparing these site guidelines, requires a comprehensive study. However, as these site guidelines were being finalized, consideration was being given to amend the regulations to reflect the significant improvements made to the ski area planning process, efforts to protect ecological integrity in the park and the establishment of permanent growth limits. The amendment being considered would involve a comprehensive study only being required in the event a ski area advances proposals inconsistent with approved site guidelines or where there are no approved site guidelines in place. Long-range plans that are consistent with site guidelines would then require a screening level environmental assessment.

In preparing long-range plans stakeholder and public consultation will be an important part of the process. The following outlines the basic steps in preparing a long-range plan and the minimum level of consultation requirements should the potential adjustments noted above be made to the Comprehensive Study List Regulations regarding ski area developments. Should no change be made to the regulations, then consultation requirements for the environmental assessment will be consistent with the comprehensive study regulations.

Outline of Long-Range Planning Steps and Consultation Requirements (if the comprehensive study regulations change and a long-range plan is assessed at a screening level environmental assessment).



- Determine scope of projects to be included in the long-range plan (Parks Canada, ski area)
- Prepare environmental assessment terms of reference (Parks Canada based on site guidelines strategic environmental assessment and scope of projects to be included in the long-range plan)
- Posting on the CEA Agency website of scope of factors to be assessed (Parks Canada)
- Revise environmental assessment terms of reference if necessary (Parks Canada)
- Prepare draft long-range plan (ski area)
- Prepare draft environmental assessment (ski area)
- Public review of draft long-range plan (ski area)
- Public review of draft environmental assessment (Parks Canada)
- Revisions to long-range plan and environmental assessment (ski area)
- Environmental assessment determination (Parks Canada)
- Recommendations to Minister on long-range plan (Parks Canada)
- Minister decision on long-range plan

Following the approval of a long-range plan, the ski area would advance specific initiatives from the plan through the development review process. However no further environmental assessments are anticipated to be necessary if the project is fully consistent with the description in the long-range plan and its environmental assessment.

7.0 MONITORING AND FOLLOW-UP

Long-range plans, environmental assessments, best management practices and Environmental Management System will determine specific monitoring requirements.

Follow-up requirements to ensure mitigations are successful will be identified as part of long-range plans and the associated environmental assessment, as well as annual business licensing.

8.0 LEASE AND BUSINESS LICENCE

“At the request of a ski area operator, a new 42-year lease will be negotiated as part of the long-range planning process. Exceptions to the Ski Area Management Guidelines and development in less sensitive areas can be considered, as previously noted, for those areas that advance leasehold reconfiguration during the planning process, to expedite better protection of park lands.

Alternatively, a ski area operator may elect to negotiate a new 42-year lease upon expiration of their current lease.

The new lease will rationalize the leasehold boundary with the perimeter of the new Developed Area and reflect the negotiated Growth Limits. New leases will continue to be subject to legislation, regulations, policy and guidelines in force and as modified from time to time.”

“New land, in exchange for removal of sensitive areas from the leasehold, will be managed through a Licence of Occupation.

Leasehold expansion will be prohibited. Licence of Occupations will be used to manage avalanche trigger zones that are outside of existing leasehold areas.”

(Ski Area Management Guidelines, Minister of Environment, 2006, page 6 & 7)

Existing Situation

Norquay’s lease expires March 31, 2027.



Objective

- *Negotiate a new lease to reflect the negotiated growth limits and the key parameters of these site guidelines.*

Site Guidelines

1. Prepare a new 42-year lease at the request of the ski area. Parks Canada's intention will be to include key elements of the site guidelines in a new lease. The new lease will reflect boundary changes and to achieve the substantial environmental gains as shown on Maps 2 and 2A.
2. Develop licences of occupation for the management of avalanche control areas outside the developed area, the utility corridor and the access to the explosives storage area as shown on Map 2.
3. Prepare the new lease and licences of occupation, in collaboration with the ski area, as proposals for exceptions or summer use are advanced or at the same time as the first long-range plan.
4. Confirm lease boundary and new licenses of occupation through appropriate approvals prior to the issuing of permits (or at the same time permits are issued) for related projects approved as exceptions to the *Ski Area Management Guidelines* or approved changes to summer use.
5. Pursue amendments to Schedule 5 of the *Canada National Parks Act* and *National Parks Wilderness Area Declaration Regulations* to reflect the adjustments of the leasehold boundary.
6. Ensure annual business licences are consistent with a new lease and new licences of occupation and support implementation of these site guidelines and future approved long-range plans. Separate winter and summer business licence will be established and used as the basis for annual business licensing.

9.0 STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)

Environmental considerations shaped the *Ski Area Management Guidelines* and have shaped the *Mt. Norquay Development and Use Site Guidelines*. Parks Canada has undertaken a strategic environmental assessment of the site guidelines to examine their implications and help understand potential consequences. Because of the scale of the ski area's operation and the complexity of the potential issues, the SEA has been undertaken at a significant level of detail and rigour and subjected to thorough scientific peer review. Key aspects of the SEA are incorporated into the site guidelines. The SEA is neither the first nor the last step in the environmental analysis of the ski hill. It falls between a very broad overview and specific assessments for projects brought forward in the long-range plan.

The SEA concludes that ski area development that proceeds in accordance with the parameters of the site guidelines and that responds to the planning and information requirements of the SEA is expected to achieve outcomes for ecological integrity, cultural resources, visitor experience and infrastructure capacity consistent with direction in the *Ski Area Management Guidelines* and the park management plan.

Public review of the draft SEA resulted in only a few comments on the summary of the SEA – no comments were received on the full document.

The SEA identifies a number of mitigations and planning/information requirements that must be addressed in future long-range plans proposals and environmental assessments. While the majority of these are reflected in the site guidelines, the ski area will need to use the SEA in tandem with the site guidelines in preparing its proposals.

A summary of the SEA is included in Appendix 3. The complete report is also available from Parks Canada upon request.



APPENDIX 1 - TERRAIN MODIFICATION

The following criteria will be used to assess terrain modification proposals (eg. ski terrain, parking lot, reservoir etc) in order to determine whether they are major or minor.

| | Minor | Major |
|---|---|---|
| <i>Magnitude</i> | The alteration of isolated physical features; major features remain | An overall change in grade, slope or configuration of natural terrain; major features are removed |
| <i>Ecological context</i> | No impact to unique or sensitive features | Alteration of unique or sensitive features |
| <i>Vegetation Reclamation</i> | Readily reclaimed within a few growing seasons | Reclamation difficult or uncertain within a few growing seasons |
| <i>Reversibility and duration</i> | Ecological and aesthetic conditions are maintained without future restoration | Involves permanent aesthetic scarring or ecological impairment without future restoration |
| <i>Visual impact</i> | Undetectable after reclamation | Readily visible to off-hill park visitors |
| <i>Sense of place – nature of development</i> | Natural appearance consistent with local terrain variation | Constructed, man-made, artificial in nature |

Application:

- To be considered a minor change, all the minor criteria must be met.
- Major changes are considered significant. They can only be considered if they are treated as exceptions to the *Ski Area Management Guidelines*. They require a substantial environmental gain in order to be considered.

Definitions:

Feature is a noticeable form or shape that stands out from the immediate surrounding terrain. Major features are prominent and influence the overall character of the immediate surrounding terrain.

Minor terrain modification is limited to isolated features, does not affect ecosystem composition, structure or function and is readily restored, resulting in changes that are essentially indiscernible to the visitor from features in the natural environment. Basic nature of the terrain remains unchanged. May be supported with removable structures that are designed to limit physical modification to the terrain, particular in the case of ski ways.

e.g. rock removal, edge shaving of portions of the width of a run, levelling of isolated, non prominent features, ski way decking.

Major terrain modification involves what is essentially permanent change to the physical, ecological or aesthetic configuration of the local landscape over wide spread areas or where reclamation or restoration in the future is difficult, unlikely or uncertain. The basic nature of the terrain is changed.



e.g. run grade modification, cut and fill ski-ways, roads, cat tracks, off-road vehicle retaining walls, platforms, bridges, terrain park features, removal of character defining features, levelling across the entire width of a run.



APPENDIX 2 - SKI AREA MANAGEMENT GUIDELINES – DECEMBER 7, 2006

INTRODUCTION

Downhill skiing has a long history in Canada's national parks. The Banff Ski Club was formed in 1917 and the first commercial ski facility began operations in 1934. Downhill skiing has since become a cornerstone of winter tourism in the Rocky Mountain national parks. Banff and Jasper National Parks of Canada are international ski destinations attracting hundreds of thousands of skiers each year. Due to the pressures placed on alpine and sub-alpine environments, the 2000 *Canada National Parks Act* prohibits developing new commercial ski areas inside the national parks.

The nature of skiing and skier expectations, as well as national parks policies have changed considerably since the initial Long-Range Plans were developed for the Lake Louise, Sunshine Village, Mount Norquay and Marmot Basin ski areas in the 1980s. In order for these areas to operate in a manner that will not impair the ecological integrity of the parks and assist them to remain competitive, a clear and consistent approach to managing ski areas is required. Ski Area Guidelines were established in 2000 to guide the development of new Long-Range Plans. In order to facilitate improvements to ecological integrity, reflect the full scope of Parks Canada's mandate and address the concerns of communities, ski areas, tourism associations and environmental groups, some refinements to the guidelines are necessary. These refinements reflect the original intent of the guidelines and will be the basis for managing ski areas in the mountain national parks.

BASIC APPROACH

The following outlines the broad approach that will be taken to manage the mountain national park ski areas:

- Parks Canada's fundamental responsibilities are protecting heritage resources, facilitating opportunities for public education and memorable visitor experiences. As part of this integrated mandate, the *Canada National Parks Act* requires that the maintenance or restoration of ecological integrity will be the first priority when considering all aspects of the management of parks. These responsibilities will form the foundation for decisions.
- Parks Canada's primary goal for the management of ski areas is to achieve long term land use certainty that:
 - ensures ecological integrity will be maintained or restored;
 - contributes to facilitating memorable national park visitor experiences and educational opportunities; and
 - provides ski area operators with clear parameters for business planning in support of an economically healthy operation.
- To address the needs of the ski areas and Parks Canada, a collaborative approach is desired.



- Growth Limits and parameters to guide development and operations have been established for communities and outlying commercial accommodation to ensure ecological integrity and reinforce their location in a national park. Ski areas will be treated in a similar manner.
- The requirements of the *Canada National Parks Act*, *Canadian Environmental Assessment Act* and the *Species at Risk Act* will be met.
- The 2000 Ski Area Guidelines recognized that existing Long-Range Plans were out of date. They identified the need to have new plans completed by 2002. These plans are overdue. New development will be addressed through new Long-Range Plans. In advance of new plans, development will be restricted and may only be considered under the conditions outlined in these guidelines.
- Ski Area Site Guidelines will be approved by the CEO of the Parks Canada Agency. Ski Area Long-Range Plans will be approved by the Minister responsible for the Parks Canada Agency.
- Parks Canada will work with ski areas to advance Long-Range Plans in a timely manner. Regulatory options to increase certainty in terms of planning and development processes and acceptable time frames for the preparation of Long-Range Plans will be considered.
- Parks Canada will seek to work together with ski areas, communities, the tourism industry and agencies to support a vibrant winter experience.

PRINCIPLES TO GUIDE NEW LONG RANGE PLANS

The following principles will guide the preparation of Long-Range Plans:

- The approach taken to manage growth and the preparation of Site Guidelines and Long-Range Plans at ski areas will be similar to that taken for communities and outlying commercial accommodation.
- Inside the existing Developed Area, new development can be considered where potential ecological impacts can be mitigated.
- Outside the existing Developed Area, new development can be considered if there is a Substantial Environmental Gain within or adjacent to the leasehold.
- Ski areas will contribute to a unique, memorable national park experience.
- Ski areas will promote public appreciation and understanding of the heritage values of the park and world heritage site and local conservation initiatives.
- Ski areas will be leaders in the application of environmental management, stewardship and best practices.

APPLICATION OF PRINCIPLES

The following information outlines how the principles will be applied.



Existing Developed Area

- The existing Developed Area represents the area modified for skiing or other uses within the leasehold through the construction of physical works, or through clearing/removal of trees and other vegetation, landscaping, terrain modification or other activity associated with ski area operation. It includes ski runs, lift lines, parking areas, commercial buildings, operational buildings and forested areas between ski runs. It does not include Undeveloped Areas, Un-serviced Terrain or Un-skied Terrain. The perimeter of the Developed Area will be determined by:
 - the top terminal of the upper-most lifts;
 - the outer limits of formally cut ski runs/gladed areas or approved Ski Terrain; and
 - the perimeter of base/parking, staging and operational areas.

- Within the Developed Area, improvements to services and facilities can be considered. Additional infill ski runs, glading, run widening and parking can be considered. However, to ensure ecological integrity and address aesthetic issues, modification of physical terrain and forest cover will be carefully managed. Site Guidelines will identify ecological management parameters to ensure ecosystem functioning is maintained and that sensitive areas are protected. At a minimum, this will include maximum run width, minimum distance between runs, maximum number of new runs and the prohibition of development in sensitive areas. Other parameters will be determined on a ski area by ski area basis. The Long-Range Plan will include a run improvement and vegetation management strategy that ensures:
 - a sustainable alpine and forest ecosystem;
 - preventing the spread of exotic non-native invasive plants and their elimination where practical;
 - non-native species are not introduced;
 - the reclamation of degraded landscapes, no longer in use, to natural conditions;
 - wildfire facility protection;
 - the maintenance and where practical, the enhancement of wildlife habitat and movement in all seasons;
 - the protection of habitat for any species at risk;
 - minimizing water erosion; and
 - the maintenance and where practical, the enhancement of the health of aquatic ecosystems.

- Capacity:
 - The capacity of ski areas can increase but development will be permanently capped through Site Guidelines.
 - Growth Limits will be established for Ski Terrain, the Developed Area and commercial buildings. These limits will represent build out.



- Within the developed area and the context of ensuring ecosystem functioning and terrain limitations, the balancing of ski area components can be considered. These components are Ski Terrain, commercial buildings, out-of-base lift capacity, total lift capacity and parking (including transportation shuttle systems).
 - In determining Growth Limits and balancing requirements of individual ski area components, Parks Canada may seek the advice of external experts.
 - Ski area development to the maximum Growth Limits can be considered if the principles and conditions set out in the approved Site Guidelines and Long-Range Plans are met.
- Within the Developed Area the following can be considered:
 - lift replacement, upgrade, realignment and new lifts;
 - increase in day lodge and commercial building size;
 - relocation and replacement of existing lodges and facilities; and
 - new warming huts and washroom facilities.
 - Development of new on-hill accommodation and the expansion of the number of rooms of Sunshine's existing hotel will not be permitted. New facilities, including day lodges, will not be permitted. New employee housing, except those required for security reasons, will be provided in the near-by communities.
 - The Goat's Eye Day Lodge proposal was at an advanced stage of review when the 2000 Ski Area Guidelines were announced. The guidelines indicated the Goat's Eye Day Lodge would be subject to a comprehensive study as required under the *Canadian Environmental Assessment Act*. Accordingly, a proposal for the facility can be considered as part of a Long-Range Plan or advanced outside of the plan.
 - Use of mass transit will be the primary means to address parking issues. Parking lot reconfiguration and expansion within the existing Developed Area can be considered within terrain and ecological limitations. New skiing parking nodes will be prohibited. Use of existing parking lots off-site can be considered, preferably in the communities, in order to support shuttle bus services.
 - Significant terrain modification will be prohibited. No new alpine ski ways will be permitted. Existing ski ways can be improved to address skier safety, terrain stability and aesthetic issues. Changes must minimize ground disturbances, address aesthetic impacts and be reversible.
 - Expansion, modification or introduction of snowmaking can be considered. Long- term decisions on snowmaking will be made in the long range planning process. Where applicable, long-term water withdrawal limits and protocols will be established to ensure minimum stream flows are maintained and a healthy aquatic



environment. Limits and protocols will be subject to review and adjustment based on the hydrological information available at the time the application for a water permit is sought. Ongoing monitoring will be required. Snowmaking operations will be addressed as part of the Best Management Practices component of the Long-Range Plan.

- Infrastructure (eg. water, sewer, power) capacity increase can be considered. Infrastructure must have sufficient capacity and meet environmental standards before ski area growth can take place.
- Exceptions to these Guidelines for facilities, parking, terrain modification limitations and adjustments to the perimeter of the Developed Area can be considered if there are Substantial Environmental Gains. Exceptions will not be considered for on-hill accommodation, Growth Limits, water permits and infrastructure requirements.

Summer Use

Existing and potential summer use of ski areas presents ecological challenges beyond those of winter operations. There are more and different wildlife species that utilize ski area slopes in summer than in winter including sensitive species such as grizzly bears, woodland caribou, mountain goat, lynx and wolverine. Wildlife is particularly vulnerable during the spring and early summer because of sensitive life cycle requirements such as nesting and rearing newborn. In addition, several of the ski areas have important wildlife routes adjacent to the leaseholds or transecting them that are essential to the long-term health of wildlife populations.

The summer season in the parks is the busiest visitor season. To address park ecological issues a range of visitor experience and ecological strategies have been developed for each park. While the number of summer users at ski areas will likely be substantially lower at most ski areas than the winter season, the ecological impacts at both the ski area and the broader park ecosystem are potentially greater.

The ecological circumstances, sensitivities and adjacent land use strategies are different at each ski area. For these reasons ski areas will be managed on a ski area by ski area basis and proposals for changes in summer use or new initiatives will only be considered where it can be clearly demonstrated that ecological issues can be successfully addressed. A precautionary approach will be applied to decisions on summer use.

In order to consider new summer use and changes to existing summer use, proposals must demonstrate that the following criteria will be met:

- No significant increase in wildlife-human conflict, wildlife habituation, displacement, disturbance or in human caused wildlife mortality.
- Wildlife habitat and movement patterns are protected.



- Visitor use is concentrated to minimize wildlife impacts. There is no significant increase in access to sensitive areas nor increase in visitor use adjacent to the ski area.
- The focus is on learning about the park and world heritage site. Services and activities that are in direct support of facilitating visitor learning opportunities can also be considered. New activities will only be considered if they are consistent with the park management plan or related park wide direction.
- Education must be an essential aspect of any new summer use outside of the base area.
- The experience reinforces the unique location in a national park.
- Potential impacts on other park users are satisfactorily addressed.
- Initiatives complement broader area land use strategies.

Site Guidelines for each ski area may identify additional site-specific requirements. Decisions on summer use will be determined through a Long-Range Plan and application of the *Canadian Environmental Assessment Act*.

Where summer use is permitted it will be carefully managed to ensure ecological values are not compromised. Ongoing monitoring programs will be put in place to ensure ecological issues are being effectively addressed. Additional mitigations will be put in place if necessary.

Outside the Developed Area

- Ski area expansion into Undeveloped Areas, Un-skied Terrain and Un-serviced Terrain can only be considered if there are Substantial Environmental Gains. An example of an exception that can be considered is a leasehold reduction or reconfiguration that results in better protection of sensitive areas in exchange for development in less sensitive areas. New land, in exchange for removal of the sensitive areas from the leasehold, will be managed through a Licence of Occupation consistent with the tenure of the lease.
- Leasehold expansion will be prohibited. Licences of Occupation will be used to manage avalanche trigger zones that are outside of existing leasehold areas.

Memorable Experiences

- The nature of ski area operations and visitor experiences will reflect and reinforce its location in a national park and world heritage site consistent with the expectations for communities and outlying commercial accommodation operations.
- In winter, new activities will be consistent with the park management plan or related park wide direction. Motorized (excluding ski lifts) activities will not be



permitted. Activities that take place inside commercial buildings and non-motorized activities, that take place on ski runs and that involve sliding downhill similar to skiing and snowboarding, can be considered outside of a Long-Range Plan subject to Superintendent approval.

Education

- Ski areas will be encouraged to provide winter educational opportunities that focus on the heritage values of the park and world heritage site as a component of the skiing/snowboarding experience.

Environmental Stewardship

- An environmental management system and monitoring system, consistent with the environmental policies and the principles identified in *Sustainable Slopes, The Environmental Charter for Ski Areas*, will be a component of a Long-Range Plan.

Leases

- At the request of a ski area operator, a new 42-year lease will be negotiated as part of the long-range planning process. Exceptions to the Ski Area Management Guidelines and development in less sensitive areas can be considered, as previously noted, for those ski areas that advance leasehold reconfiguration during the planning process, to expedite better protection of park lands.
- Alternatively, a ski area operator may elect to negotiate a new 42-year lease upon expiration of their current lease.
- The new lease will rationalize the leasehold boundary with the perimeter of the new Developed Area and reflect the negotiated Growth Limits. New leases will continue to be subject to legislation, regulations, policy and guidelines in force and as modified from time to time.

PROJECTS IN ADVANCE OF A NEW LONG RANGE PLAN

Since 2002, criteria have been in place that allowed the consideration of projects that had minimal potential to impact cumulative effects, to be considered in advance of a new Long-Range Plan. Several projects have met the previous criteria and have either been approved or are at an advanced stage of discussion. These can continue to be considered and are listed below:

Marmot Basin

- Lower chalet deck expansion

Sunshine Village

- Terrace Wing hotel replacement
- Temporary snowmaking on lower ski out



Following the completion of Site Guidelines, and in recognition that it will take time to prepare a Long-Range Plan, Parks Canada may consider additional projects if they are entirely within the existing Developed Area, do not contribute significantly to cumulative effects, are not linked to other projects and Long-Range Plan decisions and do not result in incremental expansion. The following are the types of projects that may be considered:

- Replacement of existing ski lifts;
- Parking lot improvements within the existing footprint;
- Limited terrain modification of existing ski runs; and
- Improvements to snowmaking infrastructure to support existing ski runs currently covered by snowmaking; water withdrawal would need to remain within existing water permit limits.

Beyond the types of projects noted above, the consideration of future projects in advance of Site Guidelines and Long-Range Plans will be strictly restricted to those that are maintenance, repair, replacement on a true 'like-for-like' basis or that are supported by Parks Canada for environmental reasons.



DEFINITIONS

Developed Area

The Developed Area represents the area modified for skiing or other uses within the leasehold through the construction of physical works, or through clearing/removal of trees and other vegetation, landscaping, terrain modification or other activity associated with ski area operation. It includes ski runs, lift lines, parking areas, commercial buildings, operational buildings and forested areas between ski runs. It does not include Undeveloped Areas, Un-serviced Terrain and Un-skied Terrain. The perimeter of the Developed Area will be determined by:

- the top terminal of the upper most lifts;
- the outer limits of formally cut ski runs/gladed areas or approved Ski Terrain; and
- the perimeter of base/parking, staging and operational areas.

Growth Limits

The maximum amount of development/resource utilization over time; represents build out.

Like for Like

Buildings and facilities can be replaced if they remain essentially the same. Lifts can be replaced, but the nature and location cannot. Buildings can be replaced with ones that have the same size, functions, capacity and location.

Long-Range Plan

Outline the development and operation of the ski area for all seasons for a period of 5 to 15 years. Long-Range Plans will include an environmental management system and Best Management Practices. As required by the *Canadian Environmental Assessment Act*, ski area Long-Range Plans are subject to a comprehensive study. Following the approval of a Long-Range Plan, development, consistent with the plan, can proceed to the permitting stage without the need for additional environmental assessments.

Serviced Terrain

An area that is lift accessible and regularly maintained to facilitate or improve visitor use and safety including the provision of signage, avalanche control, ski patrol, grooming, snowmaking, brushing, individual tree removal and access/egress.

Site Guidelines

Based on the Ski Area Management Guidelines, ski area specific Site Guidelines outline what development and use may be permitted, Growth Limits, the broad parameters for the type, nature and location of development and use and the approaches to enhance the character of the ski area's operation to reflect its location in a national park and world heritage site. They provide direction for the preparation of Long-Range Plans. Site Guidelines are intended to guide development and use for the foreseeable future.



Ski Terrain/Run

Ski terrain/run is an area that is routinely skied over the course of a normal ski day (subject to avalanche and snow conditions). The terrain includes alpine areas, formally cut runs/trails, gladed areas, cat tracks, roads, lift lines or connectors. The terrain has been developed or is serviced. It does not include areas that require ski touring, hiking, or climbing to access or egress areas that are not serviced.

Substantial Environmental Gain

An environmental gain is a positive change in key ecological conditions (wildlife movement and habitat, wildlife mortality, sensitive species/areas and aquatic ecosystems) that leads to the restoration or the long-term certainty of maintaining ecological integrity.

In order to determine if an ecological gain is substantial, the following criteria will be considered:

- magnitude – major as opposed to minor improvement;
- geographic context – broad scale as opposed to localized impact; and
- ecological context – improved protection or positive impacts to high value, rare or sensitive species/or multiple species.

Undeveloped Area is a natural area that has not been previously developed or altered for skiing or other uses.

Un-serviced Terrain may or may not be accessed from existing lifts, however services as described in Serviced Terrain are not provided.

Un-skied Terrain is an area that is Undeveloped and not serviced. Skiing is limited to those activities that typically occur in backcountry areas and involves ski touring, hiking, climbing and personal avalanche safety management.



APPENDIX 3 – SUMMARY STRATEGIC ENVIRONMENTAL ASSESSMENT

As part of the planning and development process for the ski area, Parks Canada, in collaboration with Mt. Norquay Ski Area, has prepared the *Mt. Norquay Ski Area Site Guidelines for Development and Use* (the *Site Guidelines*). The *Site Guidelines* describe the nature, scope and parameters for potential development and use that could be considered in the future and identify permanent limits to growth. Environmental considerations have shaped the *Site Guidelines*. While not legally required to do so, Parks Canada has proactively undertaken a strategic environmental assessment (SEA) to examine the implications of the proposed guidelines and help decision-makers understand their potential consequences. Decisions on potential future proposals consistent with the *Site Guidelines* will be made through long-range plans.

The following provides a summary of the strategic environmental assessment. Readers who are interested in the specific analysis and details are encouraged to review the complete document which can be obtained from Parks Canada upon request.

The strategic assessment is neither the first nor the last step in the environmental analysis of potential ski area development. It falls between strategic policy direction as established in the *Ski Area Management Guidelines* and subsequent assessments of specific projects brought forward as part of long-range plans. Following public consultation, the strategic environmental assessment was adjusted in response to changes in the *Site Guidelines*.

An important step in a strategic environmental assessment is to consider alternatives. A number of development alternatives that could have been considered for Mt. Norquay and the other mountain park ski areas were considered and rejected in advance as part of the development of the *Ski Area Management Guidelines*. These included on-hill accommodation, unrestricted year-round use, and unrestricted development within the leasehold. The SEA also considered alternatives in regards to proposed exceptions to development restrictions as permitted by the *Ski Area Management Guidelines*.

Strategic Approach

The objective of the SEA was to examine the *Site Guidelines* and present information about how potential ski area development and activity carried out within those guidelines would affect the ecological, cultural and visitor experience environments of Banff National Park of Canada (BNP). Legislation, policy and management plan direction was used to focus the SEA on the most important issues to BNP and to provide a benchmark against which the potential environmental impacts of the *Site Guidelines* can be assessed.

The SEA does not attempt to identify or assess all potential environmental impacts arising from ski area development and use. Parks Canada, with the help of resource specialists, identified a suite of *valued components* that reflect key threats and issues related to ecological integrity, visitor experience and infrastructure capacity. The SEA relies on existing information and research to inform the assessment process. Information gaps are identified and future information requirements to be addressed in a long-range plan and associated applications of CEAA are noted as appropriate.

Mitigating measures in the SEA take the form of *ecological management parameters* aimed at achieving *expected outcomes* associated with the key issues. Mitigations also take the form of planning, operational and knowledge requirements to be addressed in future long-range plans and project design proposals. The SEA does not address mitigations related to ski area project construction and on-going operations. These will be addressed separately through a combination of best management practices, the implementation of an environmental management system consistent with an approved long-range plan, and the environmental



assessment of the long-range plan pursuant to the requirements of the *Canadian Environmental Assessment Act*.

Impacts on Ecological Integrity

Site Overview

Mt Norquay Ski Area is located on the east slopes of Mt. Norquay, approximately 2 km north of the Town of Banff. The ski area's lodge sits in a saddle between Stoney Squaw Mountain and Mt. Norquay accessed by a two lane paved road that switchbacks up the southerly aspects of the mountain from the Trans Canada Highway. Forty Mile Creek flows along the northern and eastern base of Mt. Norquay, and the mountain's southern slopes reach to Vermilion Lakes and the Bow River.

A trip from the Town of Banff to the top of Norquay's North American lift passes through all the ecoregions of the park from the montane in the valley bottom, through lower and upper subalpine forests, and into area immediately adjacent to rugged alpine rock and scree. This variation in ecoregions over a distance less than 5 km supports some of the highest diversities of wildlife in Banff National Park from wetland species near Vermilion Lakes and Forty Mile Creek (moose, beaver, and waterfowl) to montane forest and grassland dwellers (elk and deer) to upper subalpine and alpine bighorn sheep and mountain goats. This diversity of habitats and ungulates in turn attracts a range of omnivores and carnivores including wolf, cougar, grizzly bear and lynx.

The following discussion summarizes the expected outcomes, management parameters and other key mitigations, and residual environmental effects – those remaining after the successful implementation of mitigation – on valued components as a result of all ski area development and potential change in use. Expected outcomes, management parameters and key mitigations are summarized in separate text boxes for convenience. In some cases expected outcomes or management parameters that apply to more than one valued component have not been listed to avoid repetition. In these cases the reader is referred to the section containing other relevant mitigations.

Diversity and Pattern of Native Vegetation

The development and management of ski terrain generally involves the clearing of vegetation, terrain modification such as the removal of obstacles and slope grading, and on-going snowmaking and mechanized grooming operations. Each of these has well documented potential impacts on the diversity, structure and resulting ecological function of native vegetation communities.

Best practices related to the development and modification of ski terrain, and to on-going maintenance operations are available to mitigate many of these potential impacts. Regardless of best practices, the initial methods employed in ski run development are critical to whether or not ecosystem function is maintained. Recent research on the initial development of ski terrain indicates that the diversity and ecological function of vegetation may be maintained, and even improved, by vegetation clearing activities.

However, terrain development that involves widespread ground and soils disturbance such as slope grading typically results in a significant reduction in diversity and ecological function.

Native Vegetation - Expected Outcomes

- Vegetation composition and structure are characteristic of the natural region;
- Vegetation composition and structure function as habitat for the historic range of native wildlife species;
- Vocally sensitive or valued vegetation communities and terrain features continue to persist; and
- Invasive, non-native species are not introduced or allowed to persist.



The current pattern of vegetation at Mt. Norquay has been influenced by a number of factors external to the ski area and the existing mature forest cover is not representative of historic natural conditions. A more open, patchy and diverse vegetation structure is historically representative of the Mt. Norquay environment. The situation at Mt. Norquay is unique in that run clearing and glading activities that are carried out consistent with the goals and best practices associated with vegetation, fire and wildlife management in the local surrounding region, may partially contribute toward local and regional ecological restoration.

Native Vegetation – Management Parameters

- Native species and communities dominate vegetation throughout the ski area;
- Plant communities reflect regional and local vegetation diversity;
- The composition and structure of vegetation provide habitat for a range of native species including grizzly bear and ungulates;
- Run clearing and glading simulate native vegetation succession and patterns of natural disturbance;
- Vegetation management, facility design and summer visitor use support the restoration of fire as a natural process;
- Native vegetation functions as an anchor against soil and terrain erosion; and
- Priority invasive, non-native plants are eliminated.

Historic Fire Regime

Vegetation and wildlife habitat in the Mt. Norquay area were historically maintained by wildfire. Vegetation cover in the early 1900's consisted largely of open grassland and alpine meadow interspersed with patchy forest and shrubland. Decades of fire suppression have resulted in the development of mature lodgepole pine forests inconsistent with early fire maintained conditions. Over time the change in vegetation cover has resulted in a loss of wildlife habitat quality, increased risk of forest disease and insect infestation, and increased fire fuel loads with associated risks to public safety and infrastructure.

Ski area development including run clearing, forest glading and on-going vegetation management are not necessarily inconsistent with ecosystem outcomes associated with natural fire maintained landscapes. In conjunction with Parks Canada fire management activities, ski area vegetation management may be designed and implemented to compliment broader fire, vegetation and wildlife management objectives. Together, Parks Canada fire management and ski area run development may contribute to the partial restoration of vegetation diversity and ecological function associated with the historic fire regime.

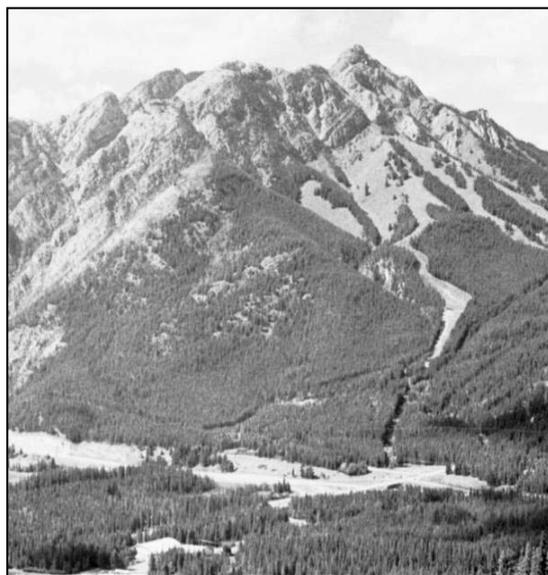
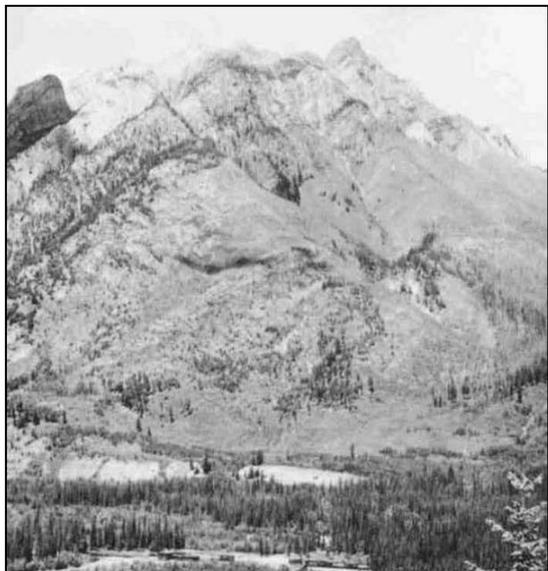
Fire Regime - Expected Outcomes

- Terrestrial and aquatic ecosystems are sustained by variation in ecosystem processes such as disturbance, succession, and energy, nutrient and material flows.

See also Expected Outcomes for Native Vegetation



The Southeast slopes of Mt Norquay 1905 (upper left) and 1996 (lower right).



While ski area vegetation management may contribute to ecological restoration, the implementation of Firesmart, fire suppression and emergency procedures associated with facility development and public use are necessary components for ensuring public safety, reducing infrastructure risk and facilitating regional fire management strategies. Fire suppression and facility protection measures may somewhat counter the improvements to ecological integrity that may be gained through ski area vegetation management. However, proper implementation of these measures also makes fire restoration in the local landscape area possible.

Grizzly Bears

Grizzly bears generally prefer a mosaic of diverse and interspersed open and forested habitats from the lower montane to the alpine including recent burns, riparian areas, and avalanche slide paths. The east facing slopes of Mt. Norquay offer a variety of these

Fire Regime – Management Parameters

- Vegetation management, facility design and summer visitor use programs support the restoration of fire as a natural process;
- Glading and run clearing simulate native vegetation succession and patterns of natural disturbance; and
- The composition and structure of vegetation provide habitat for a range of native species including grizzly bear and ungulates.

Grizzly Bear – Expected Outcomes

- Sensitive and/or valued wildlife are not displaced from habitat essential to the regional population;
- Sensitive and/or valued wildlife are not habituated through human contact and activity; and
- Wildlife mortality does not increase, directly or indirectly, as a result of human contact and activity.

See also Expected Outcomes for Native Vegetation and



habitats. While fire suppression has reduced the quantity and quality of early-succession grizzly habitat, the construction and maintenance of ski runs has maintained a degree of open meadow-like habitat that still provide a variety of important forage species for grizzly bears. The degree of change due to fire suppression has been such that cleared and maintained ski runs, juxtaposed with avalanche slide paths, remaining natural meadows, and moist gullies, are currently considered some of the best available grizzly habitat remaining in the Mt. Norquay local landscape area.

Given the significant extent of mature forest cover predominant in the region encompassing Mt. Norquay, the development of additional ski terrain including new runs, run widening and forest glading has potential to improve both habitat quality and quantity for bears and other wildlife. Strategies and mitigations to improve and restore vegetation and fire across the local landscape can also be expected to benefit grizzly bears. Of particular significance are the prescribed burn and fuel management initiatives committed to as part of the *Banff Fire Strategy* (2009). These initiatives, in combination with the run development and vegetation management strategies resulting from the Site Guidelines have potential to cumulatively improve grizzly bear habitat at a scale many times that of the existing Developed Area.

Summer use, including seasonal construction and operations, and potential changes to summer visitor use, has the potential to adversely affect grizzly bear habitat security, habituation and associated impacts such as bear human conflicts. These potential impacts must be considered against the cumulative improvements to grizzly bear habitat quality and quantity resulting from fire management and ski area vegetation management initiatives. Success at achieving ecological outcomes associated with grizzly bears will depend on the diligent application of best management practices, achieving physical separation of summer visitor use from bears and key foraging habitats, and the successful expansion and improvement of grizzly bear habitat at scales beyond the existing ski area leasehold.

Grizzly bear – Management Parameters

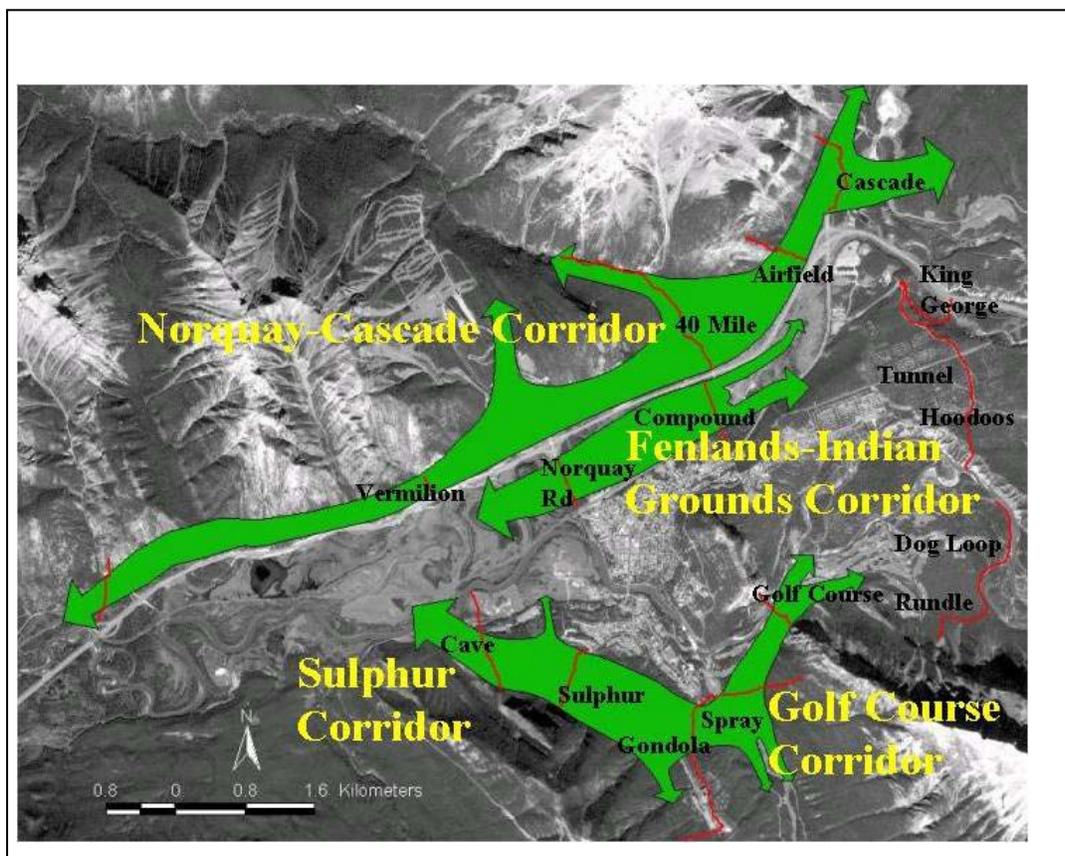
- Summer operational activities, including construction and maintenance, do not displace or habituate grizzly bears or other sensitive wildlife;
- Summer visitor use activities are developed and managed to achieve effective physical separation between visitors and bears and other sensitive wildlife ; and
- Development preserves natural food sources for grizzly bears and does not create non-native sources of food that would attract them.

Forty Mile and Cascade Wildlife Corridors

The Mt Norquay ski area leasehold partially bisects the Forty Mile Creek wildlife corridor, extending part way across the broad saddle between Mt. Norquay and Stoney Squaw. The ski area access road fully transects the Cascade Wildlife Corridor north of the Trans Canada Highway. The importance of the Cascade wildlife corridor in particular is well documented and the corridor has been the subject of considerable restoration effort over the last ten years or more.



Wildlife corridors around the Town of Banff; ski area runs are visible upper left of centre



Changes to the developed area proposed in the Site Guidelines would result in the removal and restoration of former ski terrain to the east of the current ski area on the lower slopes of Stoney Squaw. The removal and restoration of the former ski terrain from the leasehold would be seen as an improvement to the function of the Forty Mile Corridor. In association with potential changes to summer use, the Site Guidelines also include a requirement for the clearing of one or more wildlife trails across the lower slopes of Stoney Squaw Mountain to make it easier for wildlife to move across the steeper pitches in the Cascade wildlife corridor. The changes to the leasehold, the development and restoration of ski terrain, restoration of vegetation composition and patterns and the clearing of wildlife trails as outlined in the Site Guidelines, are expected to benefit corridor effectiveness and to contribute positively to the cumulative impact of local and regional vegetation and fire management.

Wildlife Corridors – Expected Outcomes

- Wildlife mortality does not increase, directly or indirectly, as a result of human contact and activity;
- Terrestrial and aquatic ecosystem processes function within the natural range of variability; and
- The function of important wildlife movement corridors is maintained or restored.

See also Expected Outcomes for Native Vegetation, Fire Regime and Grizzly Bear

Notwithstanding potential physical improvements to corridor effectiveness, an unmitigated increase in use of the ski area, summer or winter, would be reasonably associated with an increase in traffic on the access road with the potential to exert additional stress on wildlife movement and result in reduced habitat and corridor effectiveness. To address these potential concerns, the Site Guidelines prohibit the development of new parking and require that additional summer or winter visitor use be managed through mass transit strategies. For new or expanded summer use proposals the Site Guidelines address the potential for increased summer traffic by indicating that changes to summer use at the ski area may only be considered by putting in place a



mass transit system for access to the ski area that accommodates the increased number of visitors to Norquay and results in a net reduction in vehicle traffic through the Cascade wildlife corridor. The Site Guidelines also indicate that traffic will be reduced below threshold levels during sensitive evening, night and morning periods while daytime vehicle disturbance events will be reduced by 5% over 2009 levels as minimum targets. Mass transit measures may include incentives to reduce the use of private vehicles, bussing systems or the construction of a tram or gondola from the Town of Banff consistent with direction provided in the *Banff National Park Management Plan*. A mechanism for ensuring these conditions are met will be developed as part of a long-range plan that advances a proposal for changes to summer use.

Once visitors are on the hill, changes to summer use have potential to directly or indirectly impact corridor effectiveness. Concentrating visitor day use in key habitat and movement areas such as the mid mountain ski slopes may directly impact wildlife habitat use and movement through the Forty Mile corridor across the ski area.

Summer use mitigating strategies for grizzly bears including fencing in the base area, and prohibiting mid mountain summer use (tea house to base area) are expected to also effectively address wildlife corridor concerns limiting the physical presence of both commercial and private visitor use. The Site Guidelines limit potential summer use to the base area, the lift to the teahouse, and to the teahouse itself. A provision is made for the potential to develop a guided via ferrata through the cliffs above the teahouse ensuring that the design avoids displacing, disturbing or habituating sensitive wildlife. As any potential changes to summer use program will be focused on key nodes such as the base area, lift use, the teahouse operation, or guided via ferrata, a general increase in use of the ski area that might result in dispersed visitor use and decreased corridor effectiveness is not expected.

Wildlife Corridors – Management Parameters

- Effectiveness of the Cascade and Forty Mile wildlife corridors with respect to year-round vehicle traffic will be improved;
- Ski area operations and visitor use minimize the disturbance of wildlife during crepuscular (twilight) periods (approximately 1 hour in winter and 2.5 hours in summer, before and after either sunrise or sunset);
- Development and use does not displace ungulates from seasonally important habitat areas or features;
- Ski area development does not create habitat or result in human use conditions that alter natural predator/prey relationships; and
- Run clearing, widening and glading initiatives maintain an overall mosaic of wildlife habitat conditions reflective of historic vegetation patterns and disturbance regimes.

It is anticipated that the cumulative effect associated with changes to the leasehold and developed area, physical improvements to wildlife movement, and regional vegetation and fire management initiatives, will be to improve wildlife corridor and habitat effectiveness potential. The focus on mass transit associated with increased winter visitor use required by the Site Guidelines is expected to at very least maintain traffic at current levels so that corridor and habitat effectiveness is not further impaired. With respect to increased summer use, the Site Guidelines require that any proposed changes may only be considered in association with a mass transit strategy that reduces private vehicle disturbance. Physical limitations on the location and extent of on-hill summer visitor use in the Site Guidelines are expected to effectively limit the impact of visitors on corridor effectiveness.

Important Seasonal Ungulate Habitat

The Mt. Norquay area serves as important habitat in the Banff townsite area for White-tailed, Mule deer, Elk, Moose, Bighorn sheep and Mountain goat. The lower, warmer and relatively dry slopes of Mt. Norquay and Stoney squaw are important ungulate habitat in winter. The greater Norquay area is important ungulate habitat through spring, summer and

Ungulate Habitat – Expected Outcomes

- Vegetation composition and structure function as habitat for an expected range of native species;
- Sensitive and/or valued wildlife are not displaced from habitat essential to the regional population; and
- Wildlife mortality does not increase, directly or indirectly, as a result of human contact and activity

See also Expected Outcomes for Native Vegetation, Fire Regime, Grizzly Bear and Wildlife Corridors



into the fall, providing support to various stages of ungulate lifecycles. Fire suppression has resulted in a gradual reduction in wildlife habitat quality in the Mt. Norquay area. As with Grizzly bear habitat, ski area clearings for run and lift development currently provide some of the best available habitat for ungulates in the Banff LMU. Potential ski area development in concert with fire management is expected to improve both habitat quantity and quality for ungulates.

Ski area visitor use has potential to result in ungulate displacement, habituation or mortality. With the exception of mountain goats which do not usually readily adapt to human presence, displacement is less a problem in the Norquay area for ungulates than its opposite - habituation. Causes of habituation such as the feeding of wildlife can result in direct impacts affecting natural life cycle patterns and individual health.

Habituation can lead to increased mortality e.g. vehicle collisions, and result in greater potential for wildlife human conflicts. The indirect impacts of habituation include effects to predator/ prey relationships.

In either case of habituation or displacement, expansion of quality habitat, separation of visitor use from key ungulate areas, and the development and application of best practice protocols for visitor and operational use are key mitigating measures reducing the potential for indirect impacts to ungulate populations.

Ungulate Habitat – Management Parameters

- Development preserves natural food sources for ungulates and does not create non-native sources of food that would attract them;
- Ski area operations and visitor use minimize the disturbance of wildlife during night time and crepuscular periods (early morning and late evening); and
- Development and use does not displace ungulates from seasonally important habitat areas or features.

See also Management Parameters for Grizzly Bears, Wildlife Corridors and Predator/Prey Regimes

Predators and Prey

Predator/prey relationships refers to the dynamic interactions between prey species, such as ungulates, the vegetation communities that serve as food sources that prey species feed on, and the predator species, such as wolf and cougar, that feed on prey species. The consideration of predator/prey relationships, how they may be impacted by human activities, and the resulting secondary impacts to vegetation and other wildlife species, are important factors in managing for ecological integrity.

In many respects the discussion of predator/prey relationships represents a culmination of the issues previously discussed in relation to vegetation, fire management, wildlife corridors and ungulate habitat impacts. Predator/prey relationships in the Mt. Norquay area have been affected by fire suppression, which has resulted in landscape-scale shifts from early-seral to mature forest habitats, the reduction and eradication of

predator populations, and patterns of human use and development that favour ungulate habituation and predator displacement. The cumulative impacts of Park management, visitor use, and development on these factors in the Banff Townsite and Mt. Norquay areas have resulted in a loss of ungulate habitat quality and quantity, mortality and displacement of predator populations, growth of ungulate populations and ungulate habituation.

Predators and Prey – Expected Outcomes

- Sensitive and/or valued wildlife are not displaced from habitat essential to the regional population;
- Wildlife mortality does not increase, directly or indirectly, as a result of human contact and activity;
- Species are protected in accordance with SARA; and
- The function of important wildlife movement corridors is maintained or restored.

See also Expected Outcomes for Native Vegetation, Fire Regime, Grizzly bear, and Ungulate Habitat



As a result, the current predator/prey situation is characterized by a concentration of ungulates in relatively few remaining areas of high quality habitat, in combination with areas of relatively high human use from which predators are displaced. Burgeoning ungulate populations isolated from predator control results in over-browsing and modification of vegetation, which in turn results in secondary impacts to other wildlife species such as small mammal and songbird communities. Displacement of predators from primary prey sources alters the dynamics of predator populations, as well as exerting pressure on secondary prey species populations.

Decisions on development and visitor use at Mt. Norquay may either help alleviate or accentuate the regional circumstances that adversely affect predator/prey relationships. Development and land use decisions that act to restore native vegetation community patterns and distributions can be expected to result in improvements in ungulate habitat quality, in the amount of quality habitat, and improved corridor function. Increased amounts and distributions of quality ungulate habitat may, in turn, benefit predators through two mechanisms. First, predators may directly benefit from improvements to ungulate habitats as a result of consequential increases in ungulate prey populations. Secondly, because human presence can lead to predator displacement from ungulates and ungulate habitats located in proximity to humans and developments, improved distribution of ungulates and their habitats throughout the Park and away from humans and human infrastructure could improve behavioural access of predators to prey.

Predators and Prey – Management Parameters

- Effectiveness of the Cascade and Forty Mile wildlife corridors with respect to year-round vehicle traffic will be maintained or improved;
- Ski area operations and visitor use minimize the disturbance of wildlife during night time and crepuscular periods (early morning and late evening); and
- Ski area development does not create habitat or result in human use conditions that alter characteristic predator/prey relationships.

See also Management Parameters for Native Vegetation, Fire Regime, Grizzly bear, and Ungulate Habitat

Despite the potential benefits of ski area vegetation and fire management strategies, the primary adverse influence in predator/prey relationships will likely continue to be levels of human use that displace predators and habituate ungulates. The physical or temporal separation of human use from high quality wildlife habitat, or wildlife itself, will be a critical element in any plans that include the expansion of ski area visitor use, particularly in the summer.

Aquatic Ecosystems

No major waterbodies, lakes or streams occur on the Mt. Norquay lease. As such there is little potential for direct impacts as a result of ski area development and use activities. However small springs, seeps, ephemeral drainage channels and low wet areas likely serve as habitat for a variety of vegetation and wildlife contributing to habitat diversity across the ski area. The Bow River and Forty Mile creek are the watercourses nearest to the Mt. Norquay lease. Forty Mile creek is within several hundred metres of the ski area leasehold and is the source of Mt. Norquay’s snowmaking water. While Forty Mile Creek is outside the ski area lease it is impacted by ski area activities. The withdrawal of water by the ski area for domestic, potable and snowmaking uses is the source of potential key impacts to aquatic ecosystems.

Domestic and potable water are sourced from underground aquifers. There are no identified current issues with aquifer capacity or with wastewater capacity in the Town of Banff. Increased user capacity in the winter or summer are unlikely to present strategic level water issues or contribute to discernable

Aquatic Ecosystems – Expected Outcomes

- locally sensitive or valued vegetation communities and terrain features continue to persist;
- sensitive or valued wildlife is not displaced from habitat essential to regional population sustainability; and
- terrestrial and aquatic ecosystem processes function within the natural range of variation.



cumulative effects issues. The Site Guidelines dictate that infrastructure capacity be in place prior to any expansion in visitor use capacity. Project level environmental assessment will address any specific issues that may arise through the long range planning process.

Snowmaking operations withdraw water directly from Forty Mile creek. Winter water withdrawal, combined with low flows and cold temperatures may adversely impact fish and fish habitat. The primary species of concern in the area of withdrawal is Bull Trout, a provincially listed species of concern. Climate change may simultaneously increase the need for snowmaking while also reducing water availability.

Snowmaking water withdrawal is currently managed using the 10/90 rule with the objective of maintaining minimum flows for fish habitat during the low flow winter season. The 10/90 rule allows for the withdrawal of up to 10% of stream flow as long as the flow is maintained at a minimum of 90% of the long term average. As the ski area develops new ski runs, the ski area is expected to want to expand snow making to the new terrain.

A combination of approaches including water efficient snowmaking equipment, the use of snowmaking enhancing agents, and the increased use of reservoirs that can collect water during high flow periods have potential to contribute towards increasing ski area productive capacity. Any future proposals involving expanding the coverage of snowmaking, a change in the amount of water withdrawal or alternative approaches to the 10/90 rule would be addressed in a water management strategy and based on current scientific methods that support ecological integrity and provincial efforts to manage for Bull Trout.

Aquatic Ecosystems – Management Parameters

- development does not compromise natural surface and subsurface connectivity and drainage;
- minimum in-stream flows support aquatic wildlife taking seasonal variability into account;
- flooding and seasonal flow patterns maintain riparian vegetation;
- riparian and aquatic habitat structure important to rare and sensitive aquatic and riparian species is maintained or restored (Cutthroat Trout, Bull Trout, amphibian species);
- withdrawal of surface water maintains the natural flow paradigm for riparian, aquatic invertebrate and native fish ecosystems;
- water quality on, adjacent to, and downstream of the leasehold, on Forty Mile Creek and the Bow River is maintained; and
- terrestrial and aquatic ecosystem processes function within the natural range of variation.

Impacts on Infrastructure Capacity

The *Ski Area Management Guidelines* indicate that “infrastructure must have sufficient capacity and meet environmental standards before ski area growth can take place”. Overall, levels of visitor use at Norquay are expected to remain relatively consistent with the recent past. It is expected that infrastructure demand for either winter or summer use as contemplated under the Site Guidelines can be handled within current infrastructure capacity. The strategic assessment process considers potential impacts to road and transportation systems, water and wastewater systems, electrical power systems, and visitor and staff accommodation. The strategic environmental assessment does not identify any reasonably foreseeable demands for infrastructure growth that would combine with potential demands of other major centers of visitor use in and around the Bow Valley to result in incremental growth or unplanned cumulative effects.

The Site Guidelines respond to potential increase in traffic levels by prohibiting any increase in road capacity, prohibiting the expansion of parking capacity and linking any proposals to increase ski area design capacity to the development of a transportation strategy and the use of mass transit. The Site Guidelines require that the transportation strategy will ensure that traffic volumes in all seasons are consistent with the road

Infrastructure Capacity – Expected Outcomes

- ski area development does not trigger incremental growth in regional infrastructure systems;
- sufficient capacity and environmental standards are met before ski area growth can take place; and
- public health and safety standards are maintained.



classification standards currently defined for the Mt. Norquay access road and that mass transit will be the primary way of supporting increased ski area visits.

The Mt. Norquay wastewater system is linked to the treatment system in the Town of Banff. While the potential for increased winter capacity and additional summer use can be considered under the Site Guidelines, the current treatment system is anticipated to have the capacity to handle this additional wastewater load along with seasonal loads from the Town of Banff. Mt. Norquay sources potable water from a groundwater well and water for snowmaking from a reservoir that is sourced from Forty Mile Creek. No supply issues are expected in relation to the potable groundwater well.

Infrastructure Capacity – Key Mitigations

- Limits to parking lot expansion and road capacity
- Facilitate increases in visitor use through mass transportation strategies;
- Development of a water management strategy addressing supply and conservation measures; and
- Development of Environmental management systems.

Snowmaking is expected to become increasingly important for the Mt. Norquay winter operation. Snowmaking system expansion, including a requirement for additional water, is anticipated. Climate change scenarios suggest the potential for decreased surface flows in Forty Mile Creek over time. Without investments such as off-stream, off-season storage reservoirs snowmaking ability may be constrained. The parameters and mitigations associated with Aquatic Habitat are expected to adequately address the riparian and aquatic wildlife habitat issues associated with this potential need for an increase in water use.

A requirement for significant additional winter season electrical power at the ski area is not anticipated. Although winter capacity may increase, it is expected that increased energy efficiency and conservation measures may largely offset potential increased demand. Potential changes to summer use including the operation of a gondola from the town, lift, tea house and expanded base lodge operation are likely to result in the ski area using more power in the summer. An increase in summer visitor use is not expected however to trigger a need for incremental expansion of the regional power grid.

The strategies and mitigations outlined in the Site Guidelines and the SEA are expected to ensure that ski area infrastructure demand falls within existing infrastructure capacity. The incorporation of sustainable design principles and products into ski area development plans is intended to ensure resource use efficiency and conservation. The implementation of an environmental management system is intended to ensure that ski area operational impacts continue to operate within acceptable environmental parameters and standards.

Development and use at Mt. Norquay, as contemplated within the Site Guidelines, is unlikely to contribute to the need for unplanned, incremental infrastructure growth or to adversely impact public health and safety.

Impacts on Cultural Resources

The historic value of ski jumping, lodge and lift facilities at Mt. Norquay has not been fully assessed. However Park Canada cultural resources staff have suggested that the remaining facilities and landscapes may have potential historic, and perhaps architectural value. Without an intentional plan for assessment and protection of remaining in-situ resources, the value of the resources may be

Cultural Resources – Expected Outcomes

- Sites and built facilities with potential cultural, historic or archaeological value are maintained and protected until cultural resource values can be determined; and
- Protection and presentation of identified cultural resource values are incorporated into facility maintenance and modification plans, and visitor experience and education initiatives.



lost over time. Potential impacts include the degradation or loss of resources over time, damage or alteration through continued operational use, damage or alteration related to development initiatives and vandalism.

In order to ensure that remaining resources are not lost or damaged in advance of proper assessment, the ski area is to protect existing facilities and cultural landscapes from development or damage until further direction is determined. Proposals for potential development of these facilities will include the assessment, protection and presentation of potential cultural resource values.

Cultural Resources – Key Mitigations

- An initial on-site assessment of ski jumping, building and chairlift built resources and landscapes;
- Identification of appropriate protection, restoration, or potential uses related to remaining resources that respect and reflect defined cultural or historic values; and
- history and values associated with ski area resources are to be included as part of public education and interpretation.

The protective measures and incorporation of cultural resource assessment and planning into proposals for development is expected to result in the successful achievement of desired cultural resource outcomes. Assessment and planning work as described will result in long term benefits for the resources themselves but also for visitor experience and education. Ski area operators may have the potential to develop experiential visitor attractions that support present operations and celebrate the history of skiing in the Canadian Rockies.

Impacts on Visitor Experience

The potential development contemplated in the Site Guidelines is expected to contribute to a quality ski area visitor experience. Ski area resort balance is addressed within the existing guidelines. Winter development presents little physical change in the natural environment. The parameters and mitigations for vegetation management and terrain modification will ensure that the natural look and feel of the ski area environment is maintained while modest changes are made to enhance visitor experience, safety and range of opportunities.

Visitor Experience – Expected Outcomes

- potential development considered under the Site Guidelines promotes safe and comfortable visitor access and use consistent with resort balance and BNP visitor experience objectives;
- the range of visitor experience includes opportunities to learn about and connect with natural and cultural heritage consistent with the BNP Heritage Tourism Strategy;
- the scope of potential ski area development maintains a natural look and feel with respect to viewsapes and aesthetics and contributes to a sense of place consistent with national parks and world heritage sites for both on-hill and off-hill visitors; and
- visitor use conflicts, both on-hill and off-hill, are not created or maintained.

The Site Guidelines include expectations for visitor education and experience that are consistent with those required of communities and outlying commercial accommodations ensuring that the range of visitor experience includes opportunities to learn about and connect with natural and cultural heritage consistent with Mt. Norquay's location in Banff National Park and a World Heritage Site.

The aesthetic impacts of potential ski area development are addressed for both on-hill and off-hill park users. Ski area design “rules of thumb” are applied to the development of new ski terrain addressing the expectations of skiers. These design parameters are also consistent with naturally fragmented areas in Banff, contributing towards a natural look and feel with respect to viewscapes and aesthetics for both on-hill and off-hill visitors. Architectural guidelines, sign guidelines and best management practices for view scapes and ‘dark’ sky will be developed to ensure changes to buildings and signs reinforce the location in a national park and contribute to nurturing a sense of place.

Visitor Experience – Key Mitigations

- Parameters for run width and vegetation management that maintain a mosaic of wildlife habitat conditions reflective of historic vegetation patterns and disturbance regimes;
- Visitors are informed of the history and value of built heritage at Mt Norquay including ski jumping and lodge facilities;
- Visitors are informed of the potential impacts associated with water use and are encouraged to support water conservation measures; and
- The development of architectural, sign, viewcape and dark sky guidelines.

While the consideration of specific summer development proposals is beyond the scope of the strategic environmental assessment, it is anticipated that potential issues and impacts to visitor experience for both ski area and off-site visitors related to summer use and development can likely be mitigated through thoughtful design and management.

Follow Up

The strategic assessment identifies a number of follow up actions intended to address potential knowledge deficiencies associated with specific valued components and aspects of potential ski area use and development. Key issues addressed through follow-up actions such as future planning, research and environmental assessment requirements include:

- the identification of rare plant communities, invasive plant species, and historic patterns of native vegetation on Mt. Norquay and Stoney Squaw that would guide prospective ski run design and development, glading and vegetation management strategies;
- the development of Fire Smart, fuel control, fire suppression and evacuation strategies based on comprehensive wildfire hazard assessment;
- the identification of management protocols and practices that maintain or improve wildlife habitat and corridor effectiveness, that discourage habituation or displacement of wildlife and prevent wildlife/human conflict particularly in relation to grizzly bears, mountain goats, bighorn sheep, wolves, cougars and raptors including golden eagles;
- the monitoring and assessment of current and projected road traffic in relation to expanded winter or summer visitor use; and
- on-going monitoring of climate trends including precipitation, temperatures, snowpack and runoff, and groundwater flows at a scale relevant to ski area water management.

The information from follow-up actions will be factored into the next stage of planning. Some information will be used to identify and evaluate potential development options to be included in long-range plans. The environmental assessment of long-range plans will use the information gathered to build on the SEA confirming or altering the conclusions as appropriate. The development of best management practices and the implementation of an environmental management system will also be important elements of the long range planning and environmental assessment processes.

Conclusions

Ski area development that proceeds in accordance with the parameters of the Site Guidelines and that responds to the planning and information requirements of the SEA is expected to achieve outcomes for



ecological integrity, cultural resources, visitor experience and infrastructure capacity consistent with direction in the *Ski Area Management Guidelines* and the park management plan.

The cumulative effects associated with potential ski area development as considered in the Site Guidelines are not expected to compromise ecological integrity at a regional scale. Permanent growth limits are established by the Site Guidelines, along with a reduced leasehold size, providing long-term land development and resource use certainty in accordance with the *Ski Area Management Guidelines*. Ski terrain design and vegetation management practices are expected to restore and reflect natural patterns of fragmentation and support regional fire and vegetation management efforts.

At the local scale, ecosystem composition and structure and essential ecological characteristics that define or support sensitive species, communities or features will be protected, maintained, and restored where feasible. It is expected that aquatic ecosystem processes will continue to function within a natural range of variability and that seasonal flows patterns will continue to support local aquatic and riparian wildlife and vegetation communities. The cumulative effects of ski area development are not expected to result in the extirpation of local sensitive species, communities or wildlife populations.

Consistent with a precautionary approach, the Site Guidelines stipulate the conditions that must be met before Parks Canada will consider potential future projects. In a number of cases there are environmental knowledge deficiencies related to some of the potential future initiatives that Mt. Norquay has identified. In these cases, the knowledge gaps must be addressed as part of the preparation of a long-range plan if the ski area wishes to pursue the potential initiative in the future.

Overall, the guidance provided on planning and information requirements in the strategic environmental assessment is intended to provide information to reduce uncertainty and to provide objective, scientifically sound information for decision making. It should be emphasized that proposed long-range plans and subsequent environmental assessments will have to clearly respond to the ecological management parameters of the Site Guidelines and the planning and information requirements of the SEA in order to demonstrate that desired outcomes can be achieved.

The majority of the potentially significant environmental issues related to ski area development and use at Mt. Norquay Ski Area are linked to the residual impacts of long term fire suppression. Long term fire suppression has resulted in significant change to vegetation composition and structure, primarily forest encroachment and canopy closure which has resulted in the significant loss of native montane grasslands and alpine meadows. The change in vegetation has resulted in a concentration of wildlife on the ski area as the maintained ski area runs are one of few remaining meadow/grassland habitats remaining in the Mt. Norquay/Stoney Squaw area. The loss of regional quality grassland and meadow habitat over time, combined with high levels of human disturbance in the greater region has resulted in potential adverse impacts to grizzly bears and bear habitat effectiveness, wildlife corridor effectiveness and predator/prey relationships. These primary impacts have cascading secondary adverse impacts to native vegetation and wildlife habitat. Unmitigated increases in visitor use on the ski area, especially in the summer, are likely to aggravate current environmental conditions and issues.

In order to achieve desired ecological outcomes, potential increases in visitor use, particularly summer visitor use, considered in the Site Guidelines must be accompanied by mitigation measures that maintain or improve ecological conditions related to grizzly bear habitat effectiveness, corridor effectiveness and predator/prey relationships. The Site Guidelines and this SEA include a wide variety of mitigation measures that are anticipated to cumulatively:

- Enhance habitat quality on and around the ski area including enhancement to wildlife habitat and wildlife movement characteristics of the Cascade and Forty Mile wildlife corridors;
- Increase the quantity of, and access to, high quality wildlife habitat at local and regional scales;
- Decrease the level of visitor traffic disturbance within wildlife corridors;



- Manage visitor use to achieve spatial and temporal separation of people and wildlife; and
- Ensure wildlife habitat quality at critical times through daily and seasonal (temporal) restrictions on hours of operation.

The mitigations of the Site Guidelines and SEA offer more than just conceptual solutions for addressing current and potential cumulative effects associated with ski area use and development. Realistic and tangible opportunities for improvement that cumulatively interact with ski area development and use are found within approved parks plans and strategies, and in established human use management practices. Ski area run development, vegetation management and FireSmart initiatives, including off-site corridor and habitat enhancements suggested by park science staff provide tangible opportunities to improve habitat and corridor function as well as facilitate broader fire management strategies. The Banff Fire Strategy in turn, includes plans and proposals for landscape scale prescribed burning and montane restoration in areas immediately adjacent to the ski area that reflect Parks Canada's strategic ecosystem management intentions, and provide tangible opportunity to improve wildlife habitat quantity and quality both locally and regionally.

The park management plan supports the implementation of mass transit initiatives, specifically the consideration of a gondola, that provide realistic opportunities to reduce corridor disturbance levels associated with summer use. The use and adaptation of Grizzly bear (and other wildlife) management strategies and visitor use protocols implemented in relation to Lake Louise and Sunshine summer use programs, as well as other best practice mitigations that have been adopted as standard operational and impact assessment mitigations throughout the parks, provide established and realistic opportunities for visitor use and education that can be reasonably expected to achieve effective spatial and temporal separation of people and wildlife in combination with other improvements.

Several caveats to the potentially positive outcomes of development and use carried out within the parameters and conditions of the Site Guidelines are in order. To ensure that ecological outcomes are achieved it is important that the direction in the Site Guidelines and the additional planning, research and assessment requirements of the SEA are applied as an integrated package. Ski area habitat improvements are a necessary condition of achieving significant ecological improvement, but are not sufficient on their own. Ski area habitat improvement and fire and vegetation management improvements in the greater region are also necessary to establish the conditions for habitat and corridor quantity and quality that would be needed to achieve spatial separation of people and wildlife. Even with significant habitat expansion and enhancement the implementation of visitor use management strategies and protocols (ie hours of operation restrictions, fenced base area, no hiking between tea house and base area etc) will be necessary to minimize potential harmful interactions between people and wildlife. Integrated planning and collaboration between the Mt. Norquay Ski area and Parks Canada will be necessary to ensure that ecological outcomes and improvements are realized in association with ski area development and use initiatives.

The strategic environmental assessment has been conducted so that decision-makers can understand the potential consequences of implementing the Site Guidelines and make decisions accordingly. Ski area development that proceeds in accordance with the ecological management parameters of the Site Guidelines and that responds to the planning and information requirements of this strategic environmental assessment may be expected to result in the achievement of expected ecological, cultural resource, visitor experience and infrastructure capacity outcomes.

Subsequent environmental assessment of long-range plans in accordance with the *Canadian Environmental Assessment Act* will use the information gathered to build on this SEA, confirming or refining the conclusions as appropriate.



APPENDIX 4 - GLOSSARY

For additional definitions see the *Ski Area Management Guidelines*.

Development: The following definition is intended to guide decisions in ski area planning and is not intended to be used in the development review process. Development includes:

- construction, modification or expansion of any fixed physical works (including trails, roads, parking lots, utilities etc) or structures;
- expansion or modification of ski terrain;
- modification of vegetation structure or composition -- routine tree removal on existing serviced terrain for regular maintenance, safety or to meet code requirements is not included;
- introduction of new land uses (excluding activities that are similar in nature -- i.e. skiing, snowboarding, snow biking are all based on sliding downhill on ski run); and
- substantive changes in intensity of use (summer or winter) in areas that were previously low use.

Development Footprint: The area within exterior foundation walls of buildings and structures, excluding decks, patios and unenclosed spaces.

Heritage Tourism: The World Tourism Organization defines heritage tourism as “*an immersion in the natural history, human heritage, arts, philosophy and institutions of a region or country*”. “*For national parks, this definition has been expanded to include environmental stewardship.*”

Infill: A ski run that is developed between existing ski terrain/developed areas.

Offpiste: Off-piste terrain offers a backcountry type experience where more advanced skiers seek out powder or soft-packed snow. It is terrain that is accessible from lifts, but not directly serviced by them. It offers a more natural experience, with limited services such as: avalanche control and ski patrol. It involves some degree of walking/hiking to enter or egress but there may be some ski traverse tracks back to the base area to prevent skiers from getting lost or to keep them out of sensitive areas. There are no ski lifts or facility development and there is no terrain modification, grooming, snowmaking or tree removal or glading (except some minor tree removal that may be considered where essential to facilitate rescues).

Parameter: A condition or limitation placed on development or use.

Ski-way: A long, narrow, gentle, constructed traverse across steep terrain that is used to move from one ski node to another.

Use: Any human activity that occurs on or adjacent to the leasehold.

Warming Hut: A small, modest sized facility, providing shelter and rudimentary and basic facilities such as washrooms, heat and limited snacks.