Denison-Bonneau Park
Management Plan

May 2013

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Denison-Bonneau Park Management Plan

Approved by:

_____ May 23, 2013

Tom Bell
Regional Director, Kootenay Okanagan
BC Parks

Date

_____ May 17, 2013

Brian Bawtinheimer
Executive Director
Parks Planning and Management Branch
BC Parks

Date

Acknowledgements

The Vernon Outdoor Club has a long standing interest in the recreation and conservation values of Denison-Bonneau Park. BC Parks is grateful to the club for their cooperation in providing information relating to the park and the management planning process.

Residents of Lumby also provided critical insight into how BC Parks may better manage the lakes and trail system within the park.

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1.0 Introduction

1.1 Purpose

This management plan:

- establishes long-term strategic direction for Denison-Bonneau Park;
- sets out a vision for the future state of the park;
- addresses current issues affecting that long-term vision;
- determines the appropriate levels of use and development; and
- guides day-to-day park management through established management strategies.

1.2 Planning Area

The 376 hectare park is located approximately 60 kilometres east of Vernon on a sub-alpine plateau above the Creighton Valley within the North Okanagan Regional District. Nearby parks and protected areas include Graystokes Park (12 kilometres to the south) and Echo Lake Park (4 kilometres to the north). Primary access is a 2 kilometre hiking trail off of the Bonneau Lake Forest Service Road.

Denison-Bonneau Park was identified for protection as a Goal 2[1] site in the 2001 Okanagan-Shuswap Land and Resource Management Plan. The site was recommended for protection because of its two scenic lakes and popular recreational fishery situated within a predominately spruce forest. There is an abundance of post-volcanic and glacial history evident within the park, however, this exceptional attribute of the park is not well studied or documented. Much of the land area around the park is part of the Okanagan Timber Supply Area and has been heavily impacted by industrial logging. The park is situated within the Northern Okanagan Highland Ecosection. The name Denison originates from the late Norman L. Denison, whose trapline was located near the lake. Denison settled in Creighton Valley in 1908, farming, trapping and raising a family there until 1959. Bonneau originates after two brothers, Casemir and Felix Bonneau, who were early pioneers and farmers in the area.

With respect to First Nations, the park is situated within the consultative areas of the Splatsin, Lower Similkameen Indian Band, Penticton Indian Band, Okanagan Indian Band and the Okanagan Nation Alliance.

1.3 Legislative Framework

Denison-Bonneau Park was established as a Class A park on June 27, 2008. The park is named and described in Schedule D of the *Protected Areas of British Columbia Act.* Class A parks are dedicated to the preservation of their natural environments for the inspiration, use and enjoyment of the public.

[1] Goal 2 sites are those identified and recommended for protection in the Okanagan-Shuswap Land and Resource Management Plan as containing special natural, cultural heritage and recreational features.

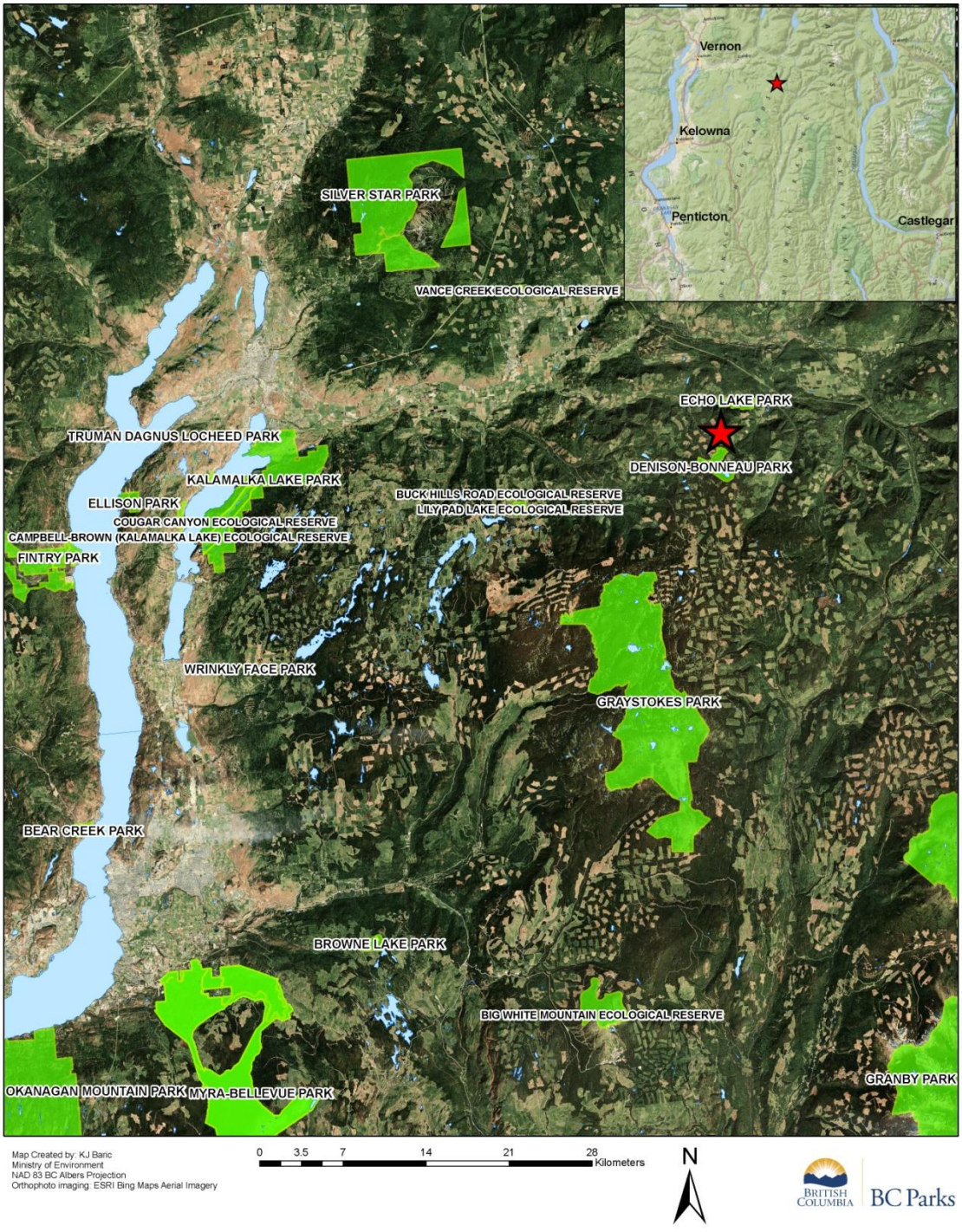

Figure 1: Denison-Bonneau Provincial and Regional Context Map

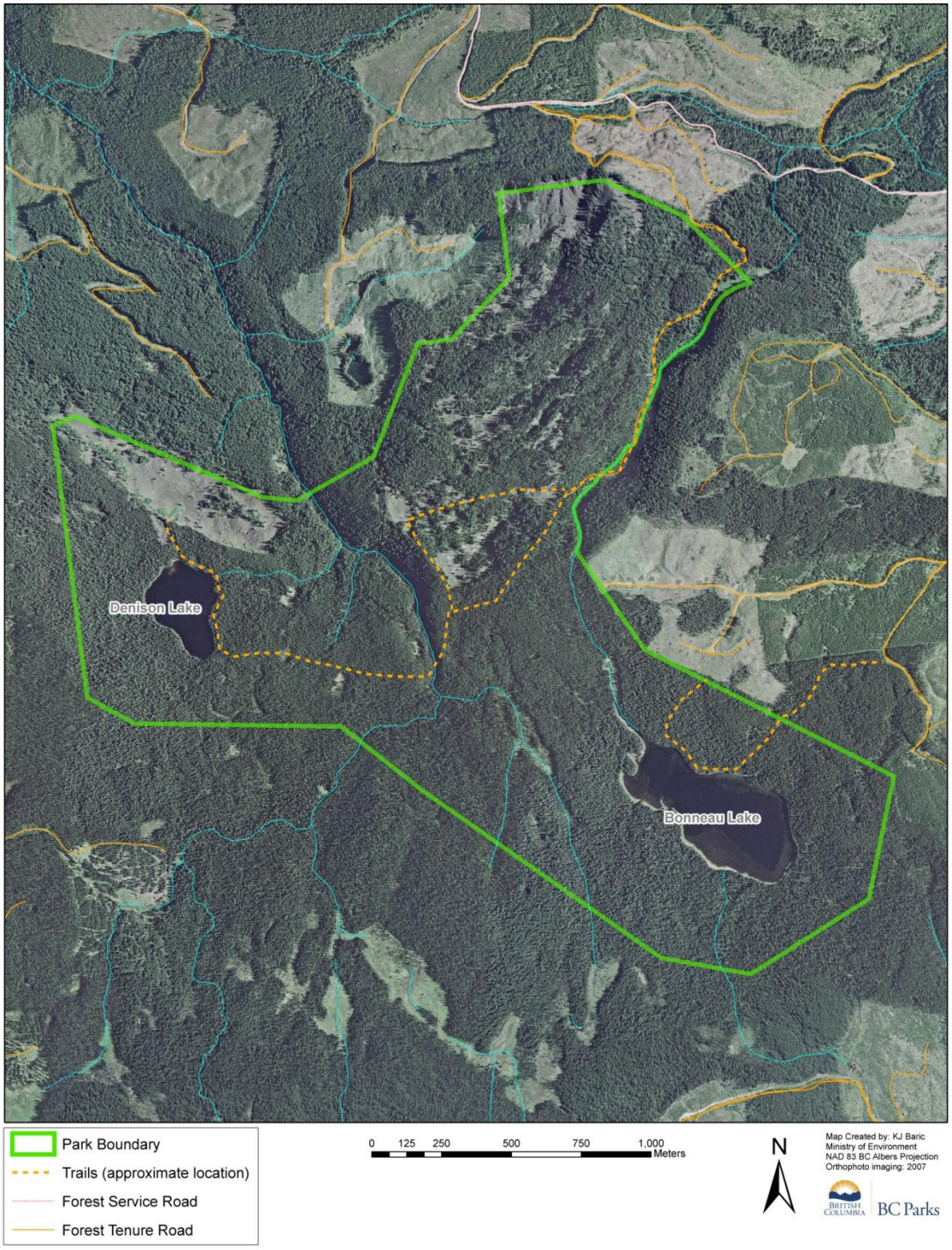

Figure 2: Map of Denison-Bonneau Park

1.4 Management Commitments

As identified in the Okanagan-Shuswap Land and Resource Management Plan, general management direction for all new protected areas within the land use plan area is as follows:

- Local level development of individual management plans must be consistent with objectives and strategies outlined in the Okanagan-Shuswap Land and Resource Management Plan.
- All parties with a key interest or stake in the area are encouraged to be involved in the management plan.
- Protected areas are dedicated to present and future generations for a spectrum of compatible conservation and recreation uses.
- Protected areas are places of education, appreciation and inspiration.
- Protected area land and resources may not be sold.
- No resource extraction or development is permitted.
- No mining, logging, hydro electric dams or oil and gas development will occur within protected areas.

The specific management direction for Denison-Bonneau Park as outlined in the Okanagan-Shuswap Land and Resource Management Plan is:

- The area is to be managed for recreation.
- The former Forest Service recreation site is to be managed as part of the park.
- There is to be no road or motorized vehicle access, other than to trailhead access.
- The management category should be “Nature Recreation”.
- New trails may be built as needed.

1.5 Relationships with First Nations

The park lies within the consultative areas of the Splatsin, the Okanagan Nation Alliance, Okanagan Indian Band, the Lower Similkameen Indian Band, and the Penticton Indian Band. The Splatsin have outlined an interest in collaboratively managing the park and supported the establishment of the park. Prior to establishment, the Splatsin voiced concerns over the size and configuration of the park, stating that a larger boundary would have better protected their aboriginal interests. There was also concern over the rate and spread of industrial logging adjacent to the park boundary.

The Okanagan Nation Alliance (which includes the Penticton Indian Band, the Lower Similkameen Indian Band and the Okanagan Indian Band), although recognizing the importance of the site’s conservation and cultural heritage values, cite that they do not support parks and protected areas that were established as an outcome of the Okanagan-Shuswap Land and Resource Management Plan. It is hoped the Okanagan Nation Alliance’s interests can be reflected in the park’s management objectives and strategies as outlined in this plan.

1.6 Community Interests

The Village of Lumby (population 1,634) is the closest community, lying 20 kilometres northwest of the park. Cherryville, a smaller community (population 1,000), is located to the northeast. Predominant use of the park is by residents of these communities, as well as residents and visitors of the City of Vernon, located approximately 40 km to the west (see Figure 1).

Prior to park establishment, all-terrain vehicle (ATV) riders maintained a short 1 km section of trail leading to Bonneau Lake. Single track hiking trails (not conducive for motorized uses) leading to, and in the general vicinity of, Denison Lake also appear to have been maintained by volunteers (e.g., Vernon Outdoor Club) and are used specifically to access a former Forest Service recreation site located on the shore of Denison Lake.

Both Denison and Bonneau lakes are popular amongst anglers. Local groups (e.g., the Vernon Fish and Game Club) have indicated the lakes in the park are a destination for many of their members. The Vernon Outdoor Club has voiced interest in continuing their trail maintenance for the park (specifically to Denison Lake).

The park contains unique and visually impressive geological features associated with past volcanic activity.

1.7 Planning Process

The management plan for Denison-Bonneau Park utilized the recommendations of the Okanagan-Shuswap Land and Resource Management Plan (2001) as a main source for management direction. A draft plan was prepared in early 2011, which was made available as a web-based forum for public, stakeholder, First Nations and government agency review. Subsequent revisions of the draft were based on input and direction from various entities.

2.0 Values and Roles of the Park

2.1 Significance in the Protected Areas System

Denison-Bonneau Park is significant in the parks and protected areas system because it:

- Protects an intact lake ecosystem and subalpine forest environment situated in a unique geological area that contains regionally significant vestiges of past volcanic and glacial activity.
- Protects an underrepresented Biogeoclimatic (BGC) Zone (Montane Spruce) in the province (only 5.8% of this BGC zone is protected province wide).
- Assists in protecting Grizzly Bears (a blue-listed species) by providing additional provincial park protection within a larger Grizzly Bear Wildlife Habitat Area.[2]
- Enhances protection within an approved Fisheries Sensitive Watershed.[3]
- Contains remnant stands of old-growth forest and riparian values in an area which has undergone extensive logging. As such, the park acts as a refuge for many species.
- Provides for a multitude of exceptional recreational activities including hiking, angling, hunting, and camping opportunities in a remote and scenic backcountry setting.
- Protects an area with a high diversity of natural resources essential for food, social and ceremonial harvesting and cultural practices of First Nations.

2.2 Wildlife Species, Ecosystems and Habitats

Values

Ecosystem Representation

Denison-Bonneau Park is primarily within the Montane Spruce Dry Mild- Okanagan (MSdm1) BGC variant (344 hectares of the park) with 12 hectares within the Engelmann Spruce Subalpine Fir Dry Cold - Okanagan (ESSFdc1) BGC variant (Figure 3). The forested lands in the park are within a Natural Disturbance Type (NDT) 3 which indicates that the area undergoes frequent stand initiating events (i.e., every 150 years).

Denison and Bonneau lakes have a surface area of 20 hectares. Both these lakes are the headwaters for creeks which also bear their names. The lakes contain intact riparian/shoreline features which are essential for nutrient balancing and ensuring good water quality.

[2] Wildlife Habitat Areas are established to minimize the effects of forest and range practices on Identified Wildlife (under the *Forest and Range Practices Act*) situated on Crown land and to maintain their habitats throughout their current ranges and, where appropriate, their historic ranges. In the case of Denison-Bonneau Park, the potential range use impacts on Grizzly Bear habitat within the park are further addressed by the designated Wildlife Habitat Area.

[3] A Fisheries Sensitive Watershed is created through legislation, specifically the *Forest and Range Practices Act*. The designation identifies those watersheds that have high ecological and fisheries value, both in upland components as well as in stream values. The aim is to draw greater attention to the responsible industrial and resource uses in these watersheds so as not to negatively impact the significant conservation values contained within them.

Fish and Wildlife Habitat

Denison-Bonneau Park contains important habitat for many species of raptors, waterfowl and shorebirds, upland bird species, and ungulates such as deer (Whitetail/Mule Deer) and Moose, as well as smaller mammals including American Marten, North American Porcupine and a variety of bat species. Unique geological features within the park (such as caves as well as moraine and lava deposits) create additional habitat features distinctive to the area.

Grizzly Bears are known to frequent the Okanagan Highlands, where the park is situated, primarily because of the area's close proximity to the Monashee Mountains to the east, a rugged mountain range that contains the necessary foraging characteristics for Grizzly Bear (i.e., avalanche paths, sub-alpine and alpine meadows). It is postulated that Grizzly Bears are using the park seasonally as part of their migration cycle.

The land area around the park has been heavily affected by industrial logging and associated road building; as such, this has created a refuge characteristic of the park.

Denison and Bonneau lakes contain Rainbow Trout that are sourced from brood stock from the Summerland hatchery. Records indicate that stocking of Denison Lake dates back to 1970, whereas Bonneau Lake stocking began in 1988. Stocking continues in both lakes and in 2009, 300 Rainbow Trout were released into Denison Lake and 500 released into Bonneau Lake. There are no fisheries data for the numerous creeks and small tributaries within the park; however, it appears that there is suitable spawning habitat at both lake outlets to provide a self sustaining fishery.

Species and Ecological Communities of Conservation Concern

Although formal species and habitat inventories within the park have not yet been conducted, spatial data[4] indicate that the park supports habitat for several red- and blue-listed species and ecological communities. See Appendix 1 for a list of all known or suspected species at risk.

[4] Source: Hectares BC.

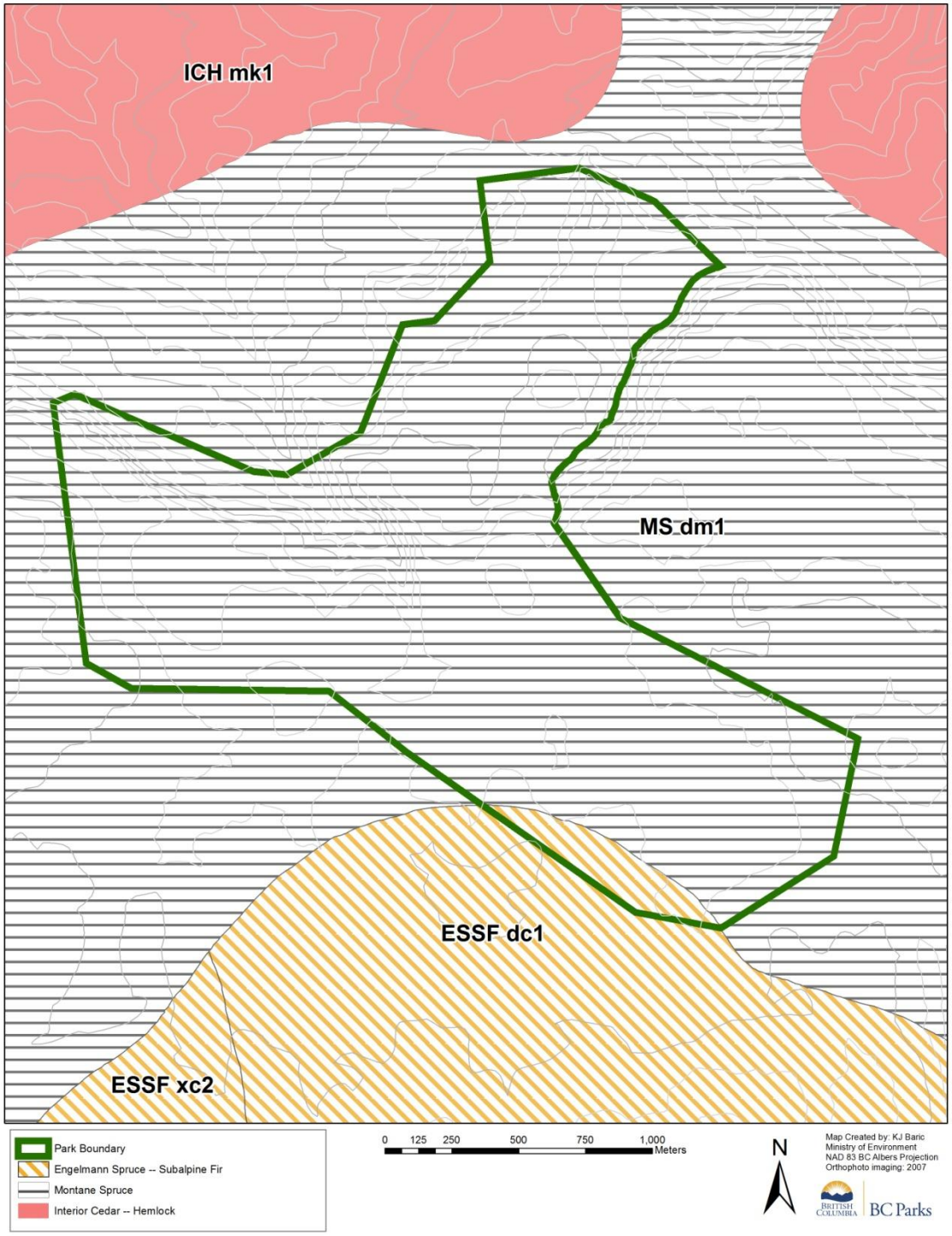

Figure 3: Denison-Bonneau Biogeoclimatic (BGC) Zones

Conservation Framework Context

The Conservation Framework is a provincial government initiative designed to support effective prioritization of provincially and globally significant species and ecological communities for conservation based upon standardized rankings within a set of identified goals. A species' or ecological community's priority relates to the goal in which the species/community ranks the highest. Recommended tasks or tools are assigned to each species/community, ranging from species inventories to ecosystem restoration and stewardship to legislative tools. [5]

Appendix 1 contains the relevant Conservation Framework prioritization number (if applicable) for species at risk found within the park or for species which have the potential to occur in the park.

Role

Denison-Bonneau Park protects an old growth sub-alpine forested ecosystem which contains two pristine freshwater lakes. Although lands adjacent to the park have been heavily impacted by industrial logging and road building, the park continues to provide essential habitat for numerous species at risk, particularly Grizzly Bear. The freshwater component of the park contains intact riparian areas and supports habitat for a range of waterfowl, fish and aquatic species.

2.3 Cultural Heritage

Values

Little is known of the First Nations cultural values and uses within the park. However, it is speculated that the area was frequented in pre-colonial times by members of the Okanagan Nation (Syilx) as well as the Shuswap Nation (Secwepemc) for hunting and gathering. Because of its retention of intact old-growth forest and other natural values, the park holds potential to support the traditional activities of First Nations.

There are no registered archaeological sites within the park.

Role

Although largely un-researched, Denison-Bonneau Park protects important cultural heritage values within the Okanagan Highlands. The fact that the landscape within the park has remained largely unaffected by industrial logging has undoubtedly preserved archaeological sites and other First Nations cultural values and the park continues to provide a setting in which food, social and ceremonial harvesting and practices can continue in a relatively undisturbed setting.

[5] For more information on the Conservation Framework, visit http://www.env.gov.bc.ca/conservationframework/.

2.4 Recreation

Values

Recreational activities in Denison-Bonneau Park include hiking, camping, angling, wildlife viewing, nature appreciation and hunting.

Forest in-growth (low canopy) along the main trails to the lakes and generally rough topography makes park use by horse riders very limited. Mountain biking may be feasible along the trail to Denison Lake however mountain biking is a very infrequent activity in the park because of its remote location.

Opportunities for hiking in the vicinity of the lake are limited to areas where established trails are located. There are no trails that circumnavigate either lake. The majority of recreational use is by local residents and anglers (particularly at Denison Lake - the smaller and most accessible of the two lakes within the park). There is a small waterfall at the outlet of Denison Lake as well as some excellent cliff terrain at which to take in views of the surrounding landscape. There is a rich post-volcanic landscape characteristic to the park which adds diversity to the park's recreational value.

Rustic (walk-in) camping opportunities exist both at Denison Lake and Bonneau Lake. Denison Lake can currently accommodate 4 or 5 tent sites, whereas Bonneau Lake has a smaller footprint (2 or 3 sites). Current use at Denison Lake is from hikers/backpackers whereas Bonneau Lake was being used (prior to park establishment) by a small number of hikers and some ATV users. Today, Bonneau Lake is primarily accessed by day use hikers. Illegal ATV use still occurs, but its use has diminished since park establishment.

Denison Lake was part of the former BC Forest Service recreation site system.

Role

Denison-Bonneau Park provides recreational opportunities in an area that is a well-known scenic and wilderness destination for anglers and hikers travelling to either Denison or Bonneau lakes. The future management of the park will highlight hiking, angling and camping opportunities, particularly at Denison Lake, while ensuring motorized use of the park's trail system is no longer occurring.

A viewscape looking north from the main trail to Denison Lake. Industrial logging visible in background.

2.5 Other Attributes

Three forest range tenures (RAN 071391, RAN 075024, RAN 077173) for the purposes of cattle grazing overlap the park. Two trap line territories (TR0823T0044 and TR0823T081) bisect the park longitudinally.

The southern portion of the guide outfitter territory for Management Unit 8-23 is currently vacant, and it is not anticipated to be allocated in the foreseeable future.

There are no facilities associated with current commercial activities (i.e., trapping) in the park.

3.0 Management Direction

3.1 Park Vision

This park vision describes the future state and management regime that is desired for Denison-Bonneau Park over the next 25 to 50 years. The park vision provides long-term direction for park managers, while aiding them in making decisions regarding current issues. It is based on prevailing environmental and socio-economic attitudes concerning protected areas. It is, however, dynamic and conceptual and therefore allows for change due to evolving ideas regarding conservation and recreation and evolving ecosystems due to climate changes.

As a small and remote backcountry park, Denison-Bonneau Park continues to provide a unique opportunity for recreationalists to enjoy pristine sub-alpine lakes and vestiges of remaining old-growth forests in the Okanagan Highlands. Anglers are rewarded with excellent fishing opportunities in both Denison Lake and Bonneau Lake, whereas day use hikers and self-sufficient backcountry campers can explore the park's unique forested environment, geological features, and viewscapes. A strong management linkage with stewardship groups that are passionate about the park has improved access opportunities while still maintaining the tranquility of the park area.

The importance of Denison-Bonneau Park to First Nations has been researched and the park continues to provide an important association to food, social and ceremonial harvesting activities of First Nations as well as preserving important spiritual and cultural values.

Owing to the industrial land uses that have historically occurred outside of the park, such as logging and road building, the park assists greatly in providing habitat connectivity and refuge for a range of plant and animal species, especially in an era of climate change.

3.2 Overall Management Goals

The overall management goal of Denison-Bonneau Park is to protect a sub-alpine lake environment that has, from an adjacency perspective, been subjected to high levels of resource extraction activities, specifically logging and road development. In addition, management goals emphasize the protection of significant cultural values and provide a high quality visitor experience directed at nature appreciation and outdoor activities such as hiking, angling, hunting, and wildlife viewing.

3.3 Management Objectives, Opportunities/Stressors and Strategies

Objective	Management Opportunities/Stressors	Strategies
To minimize the future impact that forest harvesting activities and related access on adjacent lands have on park values (e.g., minimize edge effects).	Adjacent forest harvesting and associated road access have created a refuge characteristic to the park.	• Work with the Crown agencies responsible for forest tenuring and operations and with forest licensees to minimize effects of forest harvesting activities on adjacent lands (e.g., monitor/mitigate windthrow events along park boundary). • Review forest stewardship plans when appropriate. • Work towards having forest tenured roads leading to the park periphery deactivated once harvesting and post-harvesting requirements are completed.
To minimize cattle grazing impacts within the park, specifically in areas of high conservation values (lakeshores and creek corridors)	Range use (cattle grazing) can impact sensitive riparian areas and endangered plant communities.	• Work with range tenure holders and provincial agencies responsible for range to ensure range use plan(s) incorporate park values into range management. • Discourage cattle use (utilizing fencing, removal of salt blocks and still wells) in high value habitat areas such as creeks, riparian areas and lakeshores where fish spawning is occurring and near water sources for park visitor consumption.
To protect species and ecological communities from disturbance (human or domestic animals).	Lack of species and ecological community inventory in the park limits the ability of discerning where sensitive ecological sites are and avoiding impacts.	• Conduct ground investigations and spatial analysis using Terrestrial Ecosystem Mapping (when it becomes available) to identify species and ecological communities of conservation concern. • Avoid impact on species and ecological communities in the development of proposed facilities and trails. • Inform visitors of the general characteristics of species and ecological communities of conservation concern to avoid impacts.

Objective	Management Opportunities/Stressors	Strategies
To ensure park lands are not further isolated from the larger ecosystem in which they are embedded.	Landscape connectivity in the area is highly fragmented due to resource activity, but the park location creates an important landmark for species in/out migration.	• Identify important linkages between ecosystems within the park and areas outside the park (e.g., wildlife utilization of valley/plateau habitat corridors).
To minimize the carbon footprint from park operations.	Lack of identification of climate change impacts and strategic planning over the short and long term has the ability to affect park values (both internally and externally).	• Minimize greenhouse gas emissions from park management actions (e.g., using green building products, and recycled content in construction material. • Use “green” technology for designing and developing new facilities where feasible.
Factor future climate change into management decisions.	Climate change has the ability to alter park values considerably if not adequately addressed/mitigated.	• Summarize/evaluate potential effects of climate change on park weather, hydrology, vegetation, fish and wildlife based on existing information. • Use the above summary to determine appropriate actions for managing climate change impacts. • Encourage research/monitoring of the effects of climate change on park values and ecosystem functions.
To protect cultural heritage values existing within the park and to work collaboratively with First Nations in management.	Traditional management and cultural practices have, and continue to, occur in the North Okanagan Highlands and the area is of high importance to First Nations.	• Perform historical and ethnographic research (e.g., archaeological investigation/assessments) if developments are proposed or funding opportunities arises. • Identify threats to cultural heritage values and implement appropriate protective measures for sensitive sites. • Work with local First Nations to identify cultural heritage or traditional use interpretation opportunities within the park.

Objective	Management Opportunities/Stressors	Strategies
		• Consider undertaking management and interpretation partnerships with First Nations. • Engage First Nations in operational and management issues relating to the park. • Document and register archaeological sites with the provincial agencies responsible for *Heritage Conservation Act.*
To provide a high quality recreational experience while ensuring activities (existing or proposed) do not negatively impact conservation or cultural values in the park.	Dension Lake is a popular destination as it was a frequently used Forest Service recreation site prior to park designation.	• Develop one backcountry camping area (4 or 5 sites) at Denison Lake (utilizing the former BC Forest Service recreation site footprint) and a smaller camping area (2 or 3 sites) at Bonneau Lake. • Discourage use of access points to the park except at designated locations. • Develop a Compliance Action Plan to address current unauthorized ATV use. • Provide interpretive (e.g., geological history, species at risk habitat) and informational signage (e.g., no-trace camping) for park users. • Investigate stewardship agreement with individuals/groups (e.g., Vernon Outdoor Club) for trail maintenance and park monitoring. • Continue to work with the provincial agency responsible for fisheries management on a stocking program that complements the park's recreational values.

3.4 Zoning

Zoning assists in the planning and management of protected areas. In general terms, zoning divides an area into logical units to apply consistent management objectives. The zones reflect the intended land use, the degree of human use desired, and the level of management and development allowed in specified areas.

There are six types of zones in the BC Parks Zoning Framework. At one end of the spectrum, the Intensive Recreation Zone indicates a portion of a protected area that is appropriate for high levels of recreation and facility development. At the opposite end, the Wilderness Conservation Zone indicates an area of a protected area that receives the highest level of resource protection and minimal human presence. In addition, there are four other zones providing a range of conservation and use priorities – Nature Recreation Zone, Special Feature Zone, Wilderness Recreation Zone and Cultural Zone. The Nature Recreation Zone is the only zone applicable in Denison-Bonneau Park.[6]

Nature Recreation Zone

Description

Denison-Bonneau Park, in its entirety (376 hectares), is zoned Nature Recreation.

Objective and Management Intent

Motorized use is not permitted in the park and the recreational focus of the park is on day-use activities (e.g., angling, hunting, wildlife viewing, and nature appreciation) and backcountry camping opportunities.

[6] In the future, there may be a requirement to utilize 'Cultural zones' in Denison-Bonneau Park should aboriginal use studies or analysis of the park environs yield areas of cultural importance to First Nations.

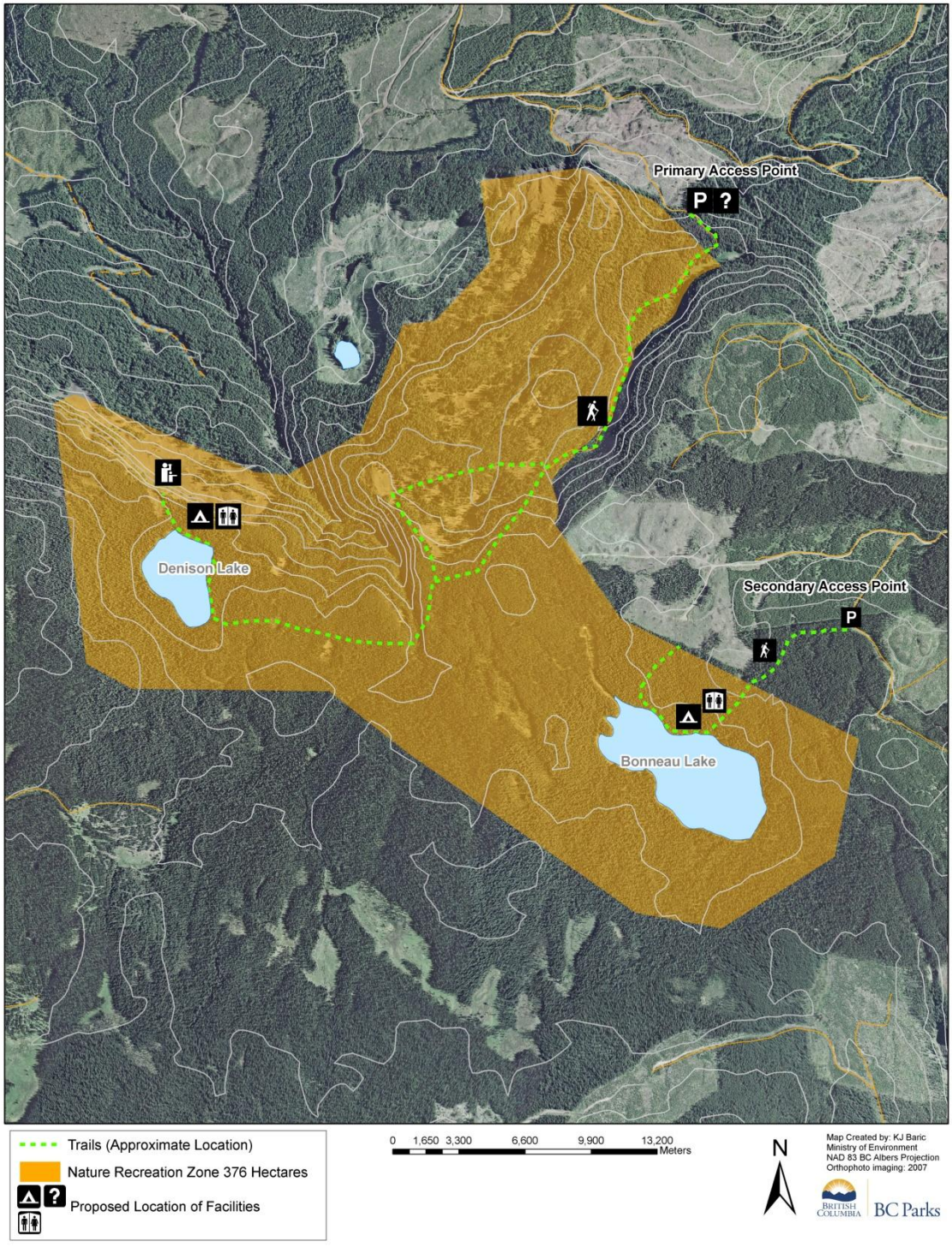

Figure 4: Denison-Bonneau Zoning and Proposed Facilities

4.0 Plan Implementation

4.1 Implementation Period

Implementing the management strategies in this management plan will be subject to available funding and staff resources. Where possible, partnerships will be developed with First Nations, stakeholders and local communities to achieve specific strategies.

4.2 High Priority Strategies

The following strategies were identified as high priorities for implementation for Denison-Bonneau Park.

1. Work with the Crown agencies responsible for forest tenuring and operations and with forest licensees to minimize the effects of forest harvesting activities on adjacent lands (e.g., monitor/mitigate windthrow events along park boundary).

2. Ensure tenured forestry roads leading to the park periphery are deactivated once harvesting and post-harvesting requirements are completed.

3. Discourage cattle use in high value habitat areas such as creeks, riparian areas (particularly along lakeshores) where fish spawning is occurring and near water sources for park visitor consumption.

4. Conduct ground investigations and spatial analysis using Terrestrial Ecosystem Mapping (when it becomes available) to identify species and ecological communities of conservation concern.

5. Engage First Nations in operational and management issues relating to the park.

6. Perform historical and ethnographic research (e.g., archaeological investigation/assessments) if developments are proposed or funding opportunities arises.

7. Develop one backcountry camping area (4 or 5 sites) at Denison Lake (utilizing the former BC Forest Service recreation site footprint) and a smaller camping area (2 or 3 sites) at Bonneau Lake.

8. Investigate stewardship agreement with individuals/groups (e.g., Vernon Outdoor Club) for trail maintenance and park monitoring.

9. Continue to work with the provincial agency responsible for fisheries management on a stocking program that complements the park's recreational values.

4.3 Management Plan Review

A management plan review is an internal process to identify if any changes are needed to the management plan. A management plan review looks for any necessary updates to the management plan that: are required to keep management direction current and relevant, correct the intent of a policy statement, address some error or omission, or address a new proposal.

In order to ensure management plans remain contemporary and relevant, it is important that the management plan is reviewed on a regular basis. Management plan reviews should occur within a timeframe that reflects the complexities of the management issues in a protected area as well as the funding and resources needed to conduct the review.

A review of the management plan content should also be triggered by changing circumstances (e.g., circumstances such as a major natural disturbance event or environmental change such as mountain pine beetle spread or wildfire) and not by a specific time period alone.

4.4 Performance Measures

A list of performance measures have been identified to assist in determining if overall goals (see section 3.3) are being met.

Denison-Bonneau Park: Management Goals and Performance Measures
Goal: Protection and Maintenance of Ecological Integrity and Natural Environments
Performance Measures ▪ Established baseline inventory of priority plant and animal species (with particular focus on species at risk) ▪ Minimized cattle impacts in the park and improved liaison with range tenure holders. ▪ Discussions on connectivity with adjacent land managers/licencees have occurred. ▪ Windthrow and invasive plant monitoring along park boundary (as a result of adjacent forest harvesting activities) have been implemented. ▪ No new road encroachment or motorized access have occurred into the park and a compliance action plan regarding motorized vehicle use in the park has been completed. ▪ Designated camping at both Denison and Bonneau lakes has been provided. ▪ Former impacted sites (e.g., indiscriminate camping areas, fire rings) have been restored to a natural state (e.g., through re-vegetation).
Goal: Preservation and Maintenance of Cultural Use Values
Performance Measures ▪ Cultural/archaeological inventories have been undertaken. ▪ Archaeological sites have been registered with the Province. ▪ First Nations' cultural resources are protected and sustained. ▪ Cultural zoning has been implemented in areas that have high traditional use/archaeological value. ▪ First Nations are able to practice their cultural activities (including the harvest of traditional materials for food, social and ceremonial purposes).
Goal: Protection and Maintenance of Recreation Values
Performance Measures

Denison-Bonneau Park: Management Goals and Performance Measures
▪ Discussions towards formalized agreements with stewardship groups (e.g., Vernon Outdoors Club) have been initiated. ▪ Interpretive and informational signage have been placed at key locations. ▪ Park visitors are aware of the sensitive ecosystem being protected within the park, while opportunities to provide low impact recreation opportunities have been maintained (e.g., hiking, camping, wildlife viewing, angling, and hunting).

Appendix 1: Species at Risk

Red and Blue List Context

The Ministry of Environment categorizes 'species at risk' utilizing the *Red* and *Blue lists*. The following is a brief description of the designations:

Red List:

Includes any ecological community and indigenous species and subspecies that is extirpated, endangered, or threatened in British Columbia. Extirpated elements no longer exist in the wild in British Columbia, but do occur elsewhere. Endangered elements are facing imminent extirpation or extinction. Threatened elements are likely to become endangered if limiting factors are not reversed. Red-listed species and sub-species may be legally designated as, or maybe considered candidates for legal designation as Extirpated, Endangered or Threatened under the *Wildlife Act*. Not all Red-listed taxa will necessarily become formally designated. Placing taxa on these lists flags them as being at risk and requiring investigation.

Blue List:

Includes any ecological community, and indigenous species and subspecies considered to be of special concern (formerly vulnerable) in British Columbia. Elements are of special concern because of characteristics that make them particularly sensitive to human activities or natural events. Blue-listed elements are at risk, but are not Extirpated, Endangered or Threatened.

The Conservation Framework Prioritization Tool Context

This tool ranks B.C. species and ecosystems of conservation concern for management action, based on five clearly defined criteria:

- ✓ global and provincial status
- ✓ trends
- ✓ threats
- ✓ stewardship responsibility
- ✓ feasibility of recovery

Each species or ecosystem receives a rank of 1 (highest) through 6 (lowest) under each of the three goals and is managed under the goal in which it receives the highest score.

Species at Risk in Denison-Bonneau Park

Ecological Communities at Risk

The following two ecological communities are red listed in the province and have the potential to occur within the park.

- Nuttall's alkaligrass - foxtail barley (*Puccinellia nuttalliana - Hordeum jubatum*)
- slender sedge / common hook-moss (*Carex lasiocarpa / Drepanocladus aduncus*)

The following five ecological communities are blue listed in the province and have the potential to occur within the park. Conservation Framework prioritization is listed (if applicable).

- Douglas-fir / shrubby penstemon - pinegrass (*Pseudotsuga menziesii / Penstemon fruticosus - Calamagrostis rubescens*). Conservation Framework Priority 2/Goal 2.

- Drummond's willow / bluejoint reedgrass (*Salix drummondiana / Calamagrostis canadensis*). Conservation Framework Priority 3/Goal 3.

- hybrid white spruce / black gooseberry (*Picea engelmannii x glauca / Ribes lacustre*). Conservation Framework Priority 2/Goal 2.

- MacCalla's willow / beaked sedge (*Salix maccalliana / Carex utriculata*). Conservation Framework Priority 3/Goal 1.

- tufted hairgrass Community (*Deschampsia cespitosa*). Conservation Framework Priority 2/Goal 2.

Flora Species at Risk

Four plant species (both blue listed) may also be present.

- pink agoseris (*Agoseris lackschewitzii*)
- Tweedy's willow (*Salix tweedyi*)
- beaked spike-rush (*Eleocharis rostellata*)
- marsh muhly (*Muhlenbergia glomerata*)

Fauna Species at Risk

One red-listed vertebrate species, Badger (*Taxidea taxus*), has the potential to occur within the park.[7]

The following four vertebrate species are blue listed in the province and may be found within the park.

[7] The likelihood of badger occurrence within the park is very low.

- Bighorn Sheep (*Ovis canadensis*)[8]
- Wolverine, luscus subspecies (*Gulo gulo luscus*)
- Grizzly Bear (*Ursus arctos*)
- Fisher (*Martes pennanti*)

Four invertebrate blue-listed species may also be found within the park boundaries.

- Immaculate Green Hairstreak (*Callophrys affinis*)
- Monarch- butterfly (*Danaus plexippus*)
- Pale Jumping-slug (*Hemphillia camelus*)
- Magnum Mantleslug (*Magnipelta mycophaga*)

[8] The likelihood of Bighorn Sheep within the park is very low as this area is far from the current range.

Appendix 2: Appropriate Uses Table

The following table lists existing and potential future uses in Denison-Bonneau Park. This is not an exhaustive list of uses that may be considered in this park.

The table is provided to summarize the uses which the management planning process has confirmed are not appropriate in Denison- Bonneau Park. The table also gives a general indication of the management direction for other uses. The table must be reviewed in conjunction with the other sections of the management plan, including the role descriptions, vision, objectives and strategies.

Activity/Facility	Appropriate in Nature Recreation Zone
Activities	
Exotic Insect/Disease Control	Y
Fire Management (prescribed fire management)	Y
Fire Management (prevention)	Y
Fire Management (suppression)	Y
Fish Stocking and Enhancement	Y
Grazing (Domestic Livestock)	Y1
Forest Insect/Disease Control	Y
Noxious Weed Control	Y
Scientific Research (manipulative activities)	Y
Scientific Research (specimen collection)	Y
Scientific Research (assessment)	Y
Cultural, ceremonial and social uses by First Nations	Y
Cultural Tourism	Y
Aircraft Access	Y(although no use recorded)
Boating (power)	N
Boating (non-power)	Y
Camping – backcountry	Y (identified sites only)
Camping – auto accessible	N
Camping – motorized boat accessible	N
Commercial Recreation (facility-based)	N
Commercial Recreation (no facilities)	Y
Exotic Pack animal Use	N
Fishing	Y
Heli-hiking	N/A
Hiking/Backpacking/Walking	Y
Horse/Non-Exotic pack Animal Use	Y
Hunting	Y
Mechanized Off-road Access (non-motorized – i.e. mountain biking)	Y
Motorized Off-road Access (not snowmobiles – i.e., 4x4, motorcycles, ATV)	N
Off-road Access (non-mechanical – dog sleds, horse sleds)	N
Skiing (self propelled, not groomed)	Y
Snowmobiling	N (except for authorized trapping tenures)
Wildlife/Nature Viewing	Y
Angling Guiding	Y
Filming	Y
Guide Outfitting	Y (see section 2.5)
Trapping	Y
Facilities/Infrastructure	
Administrative Buildings and Compounds	N
Backcountry Huts and Shelters	N
Boat Launches	N
Campground and Picnic Areas (vehicle accessed and serviced)	N
Camp sites (other)	N (see camping-backcountry)
Interpretation and Information Buildings	N
Roads and Parking Lots	N (located outside park)
Trails (hiking, cross-country skiing)	Y
Wharves/docks	N
Communication Sites	N
Utility Corridors (power/transmission lines and other rights-of-way	N
Water Control Structures	N
Water Sampling Structures	N

Appropriate Use Table Legend		
N	**Not an appropriate use**	The use is not appropriate in the indicated zone. If the use currently exists but the management planning process has determined that the use is no longer appropriate in all or part of the protected area, the management plan will include strategies for ending the activity (e.g., phasing out, closing).
Y	**May be an appropriate use**	Some level or extent of this use may be appropriate in the zone(s) indicated. If the activity/use already exists, the management plan provides guidance on the appropriate level of use and may address specific restrictions or planned enhancements (e.g., capacity, designated areas for a particular activity, party size, time of year, etc.). For new or expanded uses, this symbol indicates that the use may be considered for further evaluation and approval. The appropriateness of some activities may not be confirmed until a further assessment (e.g., BC Parks Impacts Assessment Process) or evaluation process (e.g., park use permit adjudication) is completed.
Y1	**Appropriate use as per section 30 or 31 of the *Park Act***	Indicates that the use is not normally appropriate in a protected area but was either occurring pursuant to an encumbrance or Crown authorization at the time the protected area was designated, or was authorized by BC Parks prior to July 13, 1995, and is allowed to continue.
N/A	**Not an applicable use in this zone**	Indicates where it is not feasible for the use to take place in this zone (e.g., mooring buoys in a terrestrial zone).

Appendix 3: Park Specific Stressors to Maintaining Ecological Integrity

The most significant and immediate stressors to the ecological integrity of the park are listed below:

- Forest harvesting effects on species movement in and out of the park.
- Edge effects from forest harvesting immediately along the park boundary (no buffer zones in place in relation to adjacent cut blocks).
- Road building and lack of adequate decommissioning (i.e., ATV access on former forestry roads leading to the park).
- Recreational pressures on both lakes due to higher visitation.
- Use of trails leading to Bonneau Lake by ATV's which occurred prior to park establishment and continues (illegally) in the park.
- Unsanctioned trail maintenance and construction.
- Backcountry camping in sensitive areas.
- Lack of information on species, ecosystems and invasive plants and animals.
- The adaptation of species to climate change (e.g., species movement and behavioural changes).