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State of the Park Report

Elk Island National Park of Canada



June 8, 2010



Elk Island National Park of Canada protects a representative portion of the Southern Boreal Plains and Plateaux Natural Region. Elk Island National Park is part of Canada's system of national parks. Together with national historic sites and national marine conservation areas, national parks are part of a larger network of national protected heritage areas.

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Catalogue No / ISBN # R61-29/2010E - 978-1-100-15585-2

Library and Archives Canada Cataloguing in Publication

Parks Canada

Elk Island National Park [electronic resource] : state of the park report, 2010.

Issued also in French under title: Parc national du Canada Elk Island, rapport sur l'état du parc, 2010.

Includes bibliographical references.

Electronic monograph in PDF format.

Issued also in printed form.

ISBN 978-1-100-16816-6

Cat. no.: R61-29/2010E-PDF

1. Elk Island National Park (Alta.)--Management. 2. National parks and reserves--Alberta--Management. 3. National parks and reserves--Canada--Management. I. Title.

FC3664 E54 P37 2010

333.78'30971233

C2010-980213-6

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Astotin Lake © Travel Alberta

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Elk Island National Park of Canada
State of the Park Report

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Executive Summary

The purpose of a State of the Park Report (SoPR) is to report to Canadians on the state of a national park with respect to its ecological integrity, cultural resources, visitor experience, and public appreciation and understanding; as well as summarizing the Aboriginal perspectives. In addition, SoPRs present the results of park management plan actions, report its achievement on performance expectations, and identify key issues. SoPRs also provide an essential adaptive management element by which key information is brought together, analyzed and interpreted so that it can be applied to the planning and management of national parks.

This is the first SoPR for Elk Island National Park. This report offers an opportunity to examine the successes and challenges of park management decisions that were envisioned in the *Elk Island National Park Management Plan (Parks Canada 2005a)*. The key issues identified as an outcome of this report will contribute to setting the scope for the management plan review process that will commence in 2010.

With First Nation or Métis communities about 150 kilometers away and not in close proximity to the park, Elk Island does not have long-established relationships, regular Aboriginal programming, or Treaty Land Entitlements surrounding or within the park. To foster greater involvement, Elk Island is investing resources to strengthen relationships and explore partnerships with Aboriginal communities.

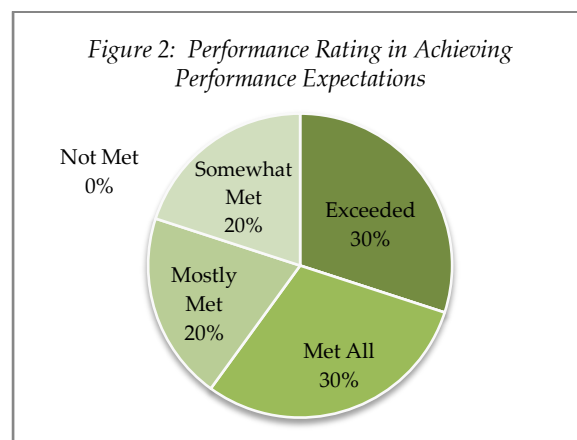
The state of the park is summarized in Table 1. State of the Park Summary. The assessment of state is a culmination of assessments on various indicators for ecological integrity, cultural resources, visitor experience, public appreciation and understanding and support.

Elk Island has worked to include the Parks Canada Agency Performance Expectations into its operational efforts. For the greater part, it has been successful in meeting the expectations, as illustrated in Figure 2. These expectations are foundational elements from which many efforts within the park are established.

In addition to the Agency performance expectations, performance goals and actions were established in the 2005 Park Management Plan. Good progress in meeting these expectations has occurred, with no outstanding actions to be taken. The new management plan being prepared in 2010 will specify and report on specific targets, rather than general goals.











Figure 1: Bull elk
© Parks Canada
In March 1906 Canada's first wildlife sanctuary, Elk Park, was established to preserve the last elk herd in the region.



This SoPR concludes with a brief synopsis of key issues that should be considered during the review of the park’s management plan. The key issues are: outdated visitor experience offer; under-developed urban and Aboriginal relationships; unfocused educational message; decline of moose population in the Main Park Area; decline of grassland health; decline of water levels; and the future of wood bison.







Table 1: State of the Park Summary

INDICATOR	STATE	RATIONALE
Resource Conservation – Ecological Integrity (Condition and Trend)		
Forest		The forest indicator is in good condition with a stable trend. As a result of the reduction in ungulate numbers and the application of fire, the forest has made a notable recovery since 1999. The ungulate measure, while yet in good condition, shows a declining trend associated with low numbers of moose in the Main Park Area and hyper-abundance in the Wood Bison Area.
Grasslands*	N/R	Further monitoring is required to fully assess park grasslands. Preliminary results indicate that noxious weeds are increasing and the extent of grassland cover at 5% is well below the target of 10-15%.
Lakes*		These shallow, eutrophic lakes, no longer connected to the regional watershed, are rated as fair and declining in response to reduced water levels over the past 10 years.
Wetlands	N/R	Further monitoring is required to enable a full assessment and rating of wetlands. Wetland water levels in the park and the region have reduced over the past 10 years with some drying up completely. Reduced beaver populations may be related to the decline of these impacted wetland habitats.
Species At Risk	N/R	Although the wood bison is categorized as stable, there is insufficient information from one survey to rank the western toad and the Yellow Rail is ‘unrankable’ due to observation difficulties of this secretive species.
Resource Conservation – Cultural Resources (Condition and Trend)		
Resource Condition*		The overall condition for the historic buildings is fair and improving as planned repairs will change the rating to good. Archaeological sites are in fair, stable condition and the archaeological collection is properly archived with a good, stable rating.
Selected Management Practices		Overall, this indicator is rated as fair. The rating for the evaluation measure is fair based since a cultural resource values statement has not been completed. The cultural resource management strategy is also rated as fair, not having been completed. The monitoring measure is fair with the monitoring program not completely developed and not all measures being monitored. All three cultural resource measures have been inventoried and are rated as good.

Visitor Experience (Trend)		
Visits		Visitation has increased approximately 15% over the past five years, ten percent more than the 4.5% increase for Alberta Central Tourism Destination Region during the same period. This indicator can continue to improve with better road signage and pre-trip information and more frequent and accurate website updates.
Learning*		From an extremely limited offer in 2005, this indicator continues to improve. Learning opportunities now include on-site interpretation programs, environmental education programs, and special events. However, these are primarily limited to summer months. Of particular concern is Understanding of Message with only two of six questions being correctly answered by at least half of the visitors.
Enjoyment*		This indicator is improving as opportunities have been enhanced with an increased presence of staff in key strategic areas of the park to facilitate visitor interaction.
Satisfaction		This indicator is in stable condition. 95% of visitors at surveyed locations are satisfied with their visit and 63% of visitors at surveyed locations are very satisfied with their visit. This trend remains stable with a slight increase from previous surveys. (Parks Canada 1998-99) and (Parks Canada 1999). Attention to improving satisfaction with camping services is required.
Meaning	N/R	This new indicator was not measured during the last survey.
Public Appreciation and Understanding (Trend)		
Understanding and Appreciation	N/R	This reporting should be considered as the benchmark since there are no comparable data and there exists significant gaps in marketing and external communications.
Support	N/R	This new indicator was not measured during the last visitor survey.

* Represents the indicators to which recent management efforts have been applied.

Table 2: Symbols for Indicator Evaluation

CONDITION				TREND			
			N/R				N/R
Good	Fair	Poor	Not rated	Improving	Stable	Declining	Not rated

Note: Refer to the Glossary for definitions related to condition and trend.

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Chapter 1 - Introduction

The SoPR is an integral component of Parks Canada's planning and reporting cycle. By providing a snapshot of the state of the park at a given point in time, the SoPR summarizes the park's achievements in meeting its performance expectations, as well as its contribution to achieving the Agency's strategic goals. This information is then used to identify key issues facing the park for consideration in management planning. A new SoPR is prepared every five years, thereby renewing the management planning cycle.

The SoPR also serves as a communication tool, helping inform decision makers within Parks Canada, such as the Chief Executive Officer, and communicate to stakeholders and the general public. The contents of a SoPR can be used to initiate discussions about important issues affecting the park at the onset of the development of a new or amended management plan.

1.1 Park Setting

Elk Island National Park is located approximately 45 km east of Edmonton. The park, shown in Figure 4 with an area of 194 sq km, together with its neighbours and adjacent provincial lands protects a core area of 900 sq km known as the Beaver Hills, underlain by the Cooking Lake Moraine Figure 6. The moraine is a plateau of wetland, mixed wood forest and grassland that sits twenty meters above the surrounding plains. Elk Island protects a representative portion of the Southern Boreal Plains and Plateaux Natural Region and is one of the largest remaining relatively intact aspen dominated lower boreal mixed wood forests in south-central Canada.



Figure 3: Plains bison © Parks Canada

On March 28, 1906 Canada's first wildlife sanctuary was established as Elk Park¹. Beginning a long history of conservation efforts in Elk Island, five local men signed a \$5,000 bond with the Dominion Government of Canada to protect one of the last remaining herds of elk in the country in a 41 sq km fenced enclosure around Astotin Lake. Plains bison from Montana then arrived in 1907, ultimately destined for Buffalo National Park at Wainwright; 48 animals eluded capture and their offspring remain to this day. In 1965, a small herd of wood bison from Wood Buffalo National Park was brought to Elk Island to establish a disease-free herd for future recovery initiatives. Trumpeter swans were reintroduced in 1987 after an absence of over 100 years and are once again firmly established in the park and region.

Elk Island continues its proud history over the past century, supporting Parks Canada's identity as a leader in conservation. Elk and plains and wood bison from Elk Island have been relocated and successfully re-established as far away as Russia, Alaska, Tennessee and in about half of the provinces and territories of Canada. Unique as the only fully fenced national park and for having high animal densities, Elk Island is renowned as a 'best chance' wildlife viewing area.

¹ Renamed Elk Island Park in 1908 and Elk Island National Park in 1930.

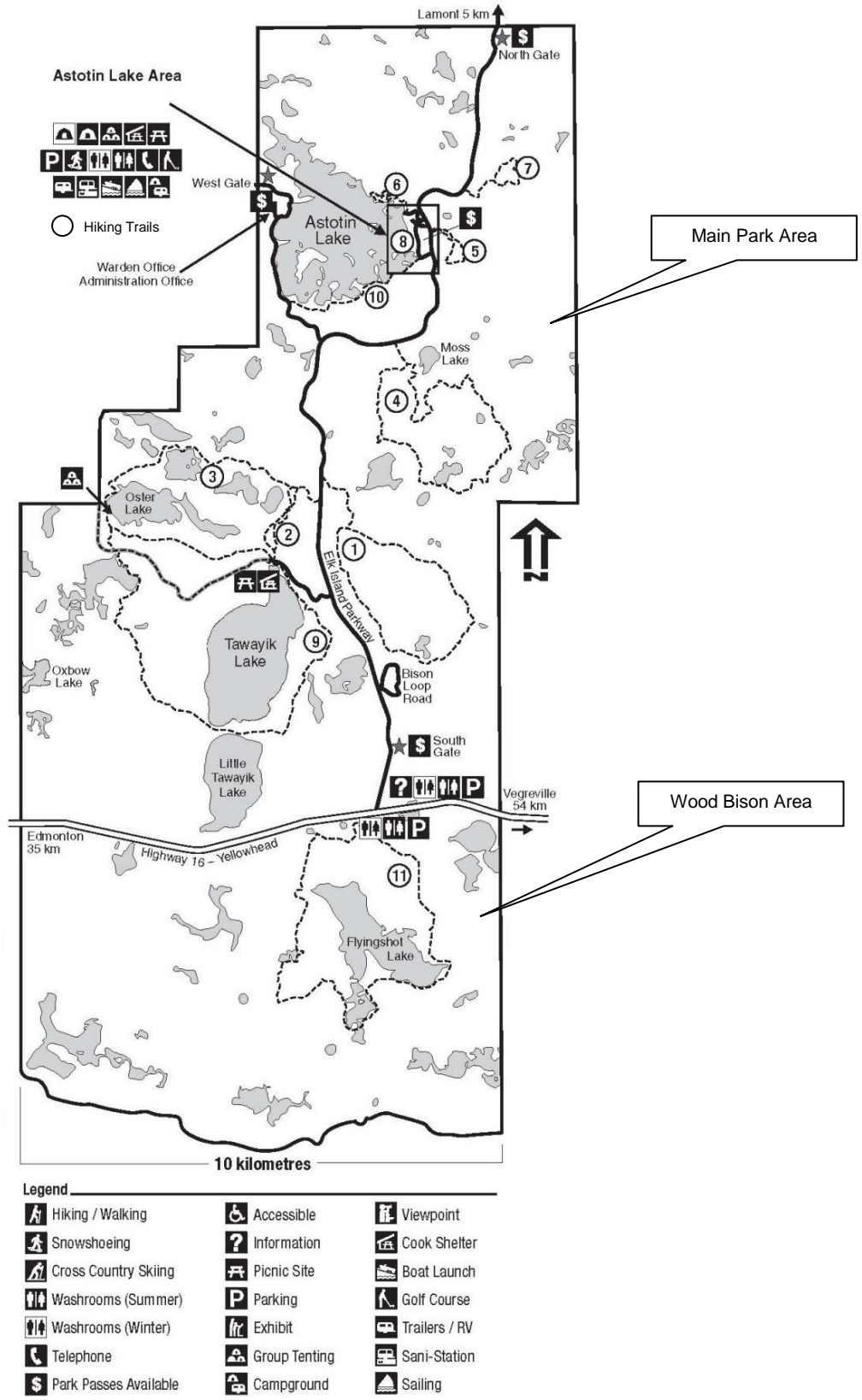


Figure 4: Elk Island National Park of Canada

Elk Island is within easy reach of many potential visitors – approximately one million people live less than 100 km from the park. Highway 16 (the Trans-Canada Yellowhead Highway) divides the park in two and offers visitors year-round, direct access to the scenic drive along the Elk Island Parkway in the northern portion of the park. Visitors come from around the globe to view wildlife and, along with the primary users from the local area, enjoy the picturesque landscape and features such as Astotin Lake, the Sandy Beach Campground and a 9-hole golf course.



Figure 5: Camping at Sandy Beach
© Parks Canada

True to its name, this park is an island of conservation within a landscape of agriculture, oil and gas, and community development pressures. Working beyond its borders, Elk Island benefits from the shared initiatives and coordinated actions of the Beaver Hills Initiative. This voluntary collaboration of more than 30 organisations is recognized as a key means to sustain the unique landscape and quality of life in the Beaver Hills, equally referred to by the name of its underlying geologic feature, the Cooking Lake Moraine.

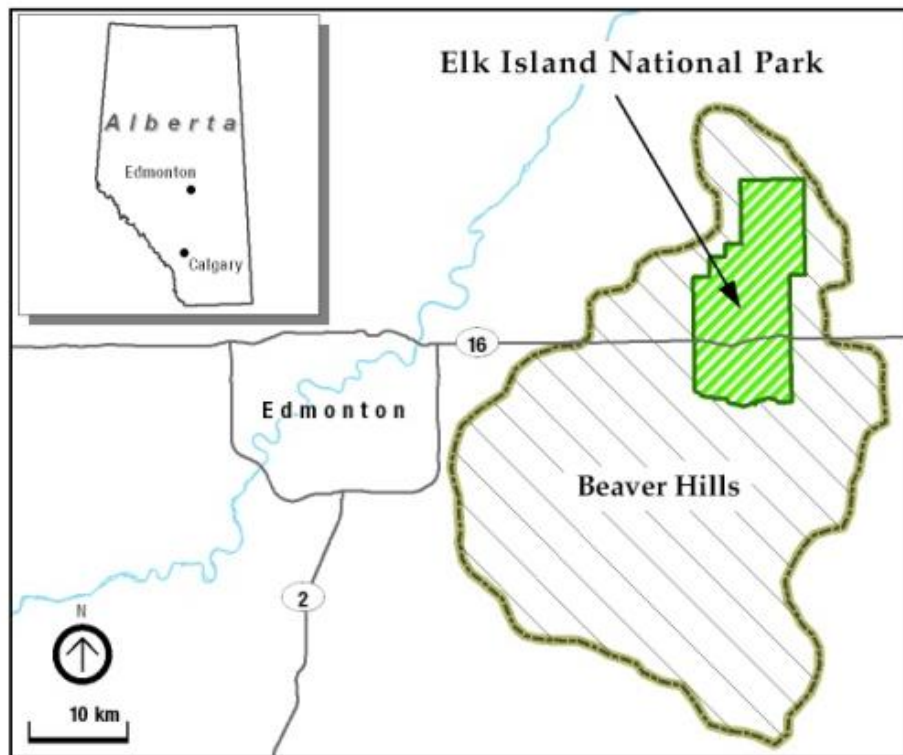


Figure 6: Regional map of the area surrounding Elk Island National Park

Chapter 2 - Aboriginal Perspectives

2.1 Aboriginal Context

In 1876, the Plains and Wood Cree First Nations entered into an agreement, known as Treaty 6, with the Government of the Dominion of Canada. Elk Island was created in 1906 as a small completely fenced national park within the Treaty 6 territory. Additions to the park area were made in 1922, 1947, 1956, and 1978. Of the 44 Treaty 6 First Nations in Alberta, six are within 150 km of the park: Alexander, Alexis, Enoch, Hobbema, Paul Band and Saddle Lake. The closest Métis point of interest is at Métis Crossing, located within Victoria Settlement, a National Historic Site of Canada. The closest Métis settlement is Buffalo Lake; both are located within 150 km of the park.



Figure 7: Tipi and aurora at Astotin Lake
Photo credit: Allan Dyer

Having no First Nation or Métis communities in close proximity to the park, Elk Island does not have long-established relationships or regular Aboriginal programming. The park does offer interpretation of Aboriginal history to visitors with demonstrations and use of harvesting tools. Special events have also taken place, most notably the Friends of Elk Island Society's Aboriginal Day celebrations on Parks Day. The park has several teepees which are used during cultural events on and off-site, both by staff and loaned to Aboriginal groups. Some teepees have received ceremonial blessing and can only be used for specific purposes, while others are painted with traditional tribal connections.

At present, Elk Island's Aboriginal engagement consists of a program for donating bison (hides, skulls and meat) to Aboriginal communities for ceremonial, cultural and subsistence purposes. In 2000, Parks Canada Agency (Elk Island National Park), along with the Canadian Wildlife Service and Canada's National Wood Bison Recovery Team entered into an agreement with members of the Tribal Chiefs Ventures Incorporated to reintroduce wood bison to the Heart Lake area, about 230 km north of the park. While all of the requirements under the agreement have now been fulfilled, Elk Island continues to provide technical advice to the Aboriginal community support the wood bison reintroduction project.

2.2 State of the Land and Relationships with Aboriginal Peoples

Parks Canada's Corporate Plan calls for Aboriginal peoples to be more involved in the management of national parks and national historic sites and their history to be better reflected in the programs offered by Parks Canada. There are currently no formal or informal cooperative management initiatives or programs between Aboriginal groups and Elk Island. To foster greater involvement with Aboriginal peoples, Elk Island is investing in new relationships with the support of a field unit Aboriginal Affairs manager and park liaison officer to guide and develop the working relationships and partnerships over the next five years.

Chapter 3 - State of the Park

3.1 Context

To determine the overall state of the park the following areas were assessed: ecological integrity, cultural resources, visitor experience, public appreciation and understanding as well as support.

Elk Island's approach to monitoring and reporting on the state of its ecological integrity is guided by select indicators for the lower boreal mixed wood forest ecosystem which the park represents (Parks Canada 2008a). These indicators include forest, grasslands, lakes, and wetland ecosystems. Each indicator has a variety of selected measures to ensure the main drivers of these ecosystems are maintained or improved. Wood bison (*Bison bison athabasca*) and the western toad (*Anaxyrus boreas*) are the two species at risk present in Elk Island and identified under the *Species at Risk Act* (SARA).

The primary goal of the cultural resource management program at Elk Island is the protection and long-term stewardship of cultural sites, objects, and archaeological resources. Achieving this aim involves monitoring and protecting these resources where possible in their original contexts, in addition to documenting their location and condition.

Visitors come to Elk Island to enjoy the peace, quiet and tranquility of the park environment. They participate in a range of activities from driving the parkway to view wildlife, to enjoying a picnic with family and friends.

Weekend campers golf and enjoy refreshments at the 9-hole golf course and experience and learn about the park through interpretive programs. To evaluate these visitor experiences the following indicators are assessed: visits, learning, enjoyment, satisfaction, and meaning.



Figure 8: Superintendent's residence, the oldest in Parks Canada © Parks Canada



Figure 9: School group pond dipping © Parks Canada

Public appreciation and understanding, and support are evaluated to measure connection to place. A component of this is outreach education which includes a variety of activities undertaken by all staff to promote the connection to Elk Island and Parks Canada's mandate to outside audiences. Elk Island's outreach education program is still evolving and developing with the efforts of staff from all sections within the park. This includes formal and targeted programs for Grade 4 students in the local region as well as opportunistic invitations to schools or events taking place in local and regional communities.




Elk Island recognizes the importance of building relationships with local, regional, and international stakeholders. The objective of these relations is to seek support and engage stakeholders to foster understanding about the importance of protecting and presenting these natural and cultural areas. Some relationships, such as the Beaver Hills Initiative, are very focussed, formal and long-term while others within the tourism industry, media, and neighbours remain informal and *ad hoc*. International opportunities with stakeholders are predominantly related to ungulate conservation projects.

3.2 State of the Park

FOREST ECOSYSTEM INDICATOR

The aspen forest is in good condition with a stable trend. Representing and protecting the southern limits of the lower boreal mixed wood forest dominated by aspen, the forest is considered the most important indicator, covering more than 70% of the park.

Ungulate herbivory (grazing and browsing) and fire are two key processes that shape the forest. Before 1999, Elk Island traditionally managed its ungulate populations at extremely high densities which outstripped the carrying capacity of the habitat (Parks Canada 2008b). As a result, vegetation between the treetops and the forest floor was absent. In an effort to restore the ecological integrity of the forest, elk and bison populations have been reduced substantially since 1999 and the forest continues to improve with time.

Measures	State
Forest Structure	
Forest Bird Diversity and Abundance	
Abundance and Health of Ungulates	

Forest Structure – Forest structure is good and stable. This measure was selected because it reflects changes caused by natural disturbances including ungulate herbivory and fire.

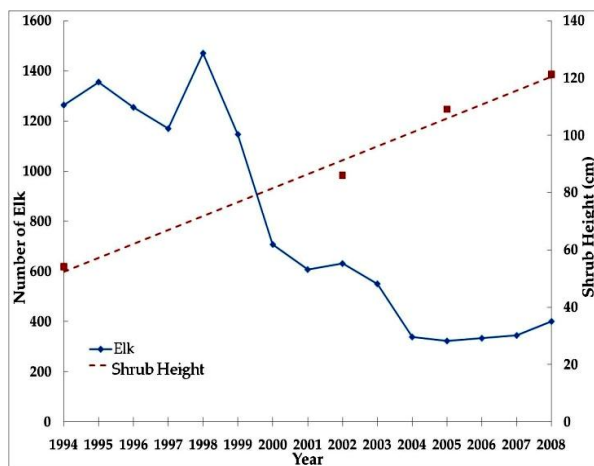


Figure 10: Relationship between the number of elk and shrub height

There has been a noticeable enhancement in the structure of the forest as shrub height has increased in response to the reduction in herbivory since 1999.

The relationship between decreasing elk numbers and increasing shrub height is illustrated in Figure 10 (Best 2001, Best *et. al.* 2004, Hiltz 2004, Parks Canada 1993, 2005b and 2009a).

A substantial recovery of the mid-range age-classes of the forest vegetation has occurred since the park ungulate populations were reduced (Figure 10).



Figure 11: Aspen growth under different browse intensities in Elk Island National Park. The photo on the left circa 1999 shows the absence of aspen regeneration due to the heavy browsing pressure by park ungulates. The photo on the right shows the significant regeneration of the forest structure that has taken place since ungulate numbers were reduced.

Forest Bird Diversity and Abundance – Forest bird diversity in the park is stable with no reported loss of species. Bird diversity is representative of the habitat type and ecoregion (U.S. Geological Survey & Canadian Wildlife Service 2010) within the park.

Of the 141 bird species observed during the forest breeding bird surveys, the seven most commonly observed species are the least flycatcher (*Empidonax minimus*), yellow warbler (*Dendroica petechia*), white throated sparrow (*Zonotrichia albicollis*), house wren (*Troglodytes aedon*), common yellowthroat (*Geothlypis trichas*), red eyed vireo (*Vireo olivaceus*), and the Northern oriole (*Icterus galbula*). Since the early 1990s, the abundance of the most common birds in the park and the province has been declining, with a slight increasing trend being observed in the past five years (U.S. Geological Survey and Canadian Wildlife Service 2010). The least flycatcher (*Empidonax minimus*) is an exception to this recent trend, as this species has been reported to be declining both in the park and the province over the past several years.

Abundance and Health of Ungulates – The overall abundance and health rating for ungulates is good but declining. This measure was selected as ungulate herbivory significantly shapes and modifies the forest, an effect even more pronounced in a closed (fenced) ecosystem like Elk Island's.

While reproduction in the bison and elk populations is good and the herds are free of

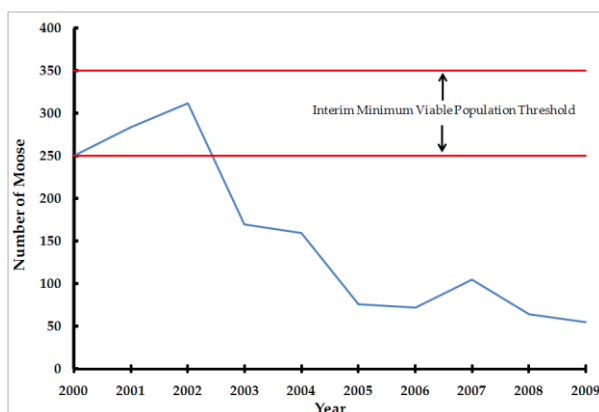


Figure 12: Moose population decline in the Main Park Area

tuberculosis (*Mycobacterium bovis*) and brucellosis (*Brucella abortus*), several other factors are of particular concern as they indicate ungulate health is declining. In the Main Park Area, there are no concerns with population numbers for bison or elk. However, the moose in this area are the exception. This population has declined significantly, reporting only 84 animals in the January 2010 aerial survey. This number is well below the the Main Park Area interim Minimum Viable Population

threshold of between 250 and 350 animals (Parks Canada 2009b). Figure 12 illustrates the dramatic decline that has occurred since 2002 (Parks Canada 2009a). Preliminary investigation of this decline suggests that the giant liver fluke (*Fascioloides magna*), a parasite often fatal to moose, may be the cause.

The moose population in the Wood Bison Area, however, is hyperabundant. This population is currently estimated to be 295, which exceeds the recommended population size of 100 moose (Table 3). This hyperabundant population is attributed to a low occurrence of winter tick infestations and no presence of the giant liver fluke. Several options are currently being explored in order to reduce this moose population.

Species	Recommended Population Size	Recommended MVP
Plains Bison	250-275	175
Wood Bison	260-300	245
Elk (Main Park)	375-400	350
Elk (Isolation Area)	75	50
Moose (Main Park)	275	Interim 250-350
Moose (Isolation Area)	75-100	Interim 50-75
Deer (Main Park)	150-350	To be determined
Deer (Isolation Area)	65-350	To be determined

Table 3: Recommended Population Sizes for Park Ungulates

Other factors of concern signalling a decline in ungulate health are the presence of Jhones disease (*Mycobacterium avium paratuberculosis*) and reports of increased levels of intestinal parasites in the wood bison population.

Deer movement is not limited by the boundary fence therefore this species is not intensively managed. As disease surveillance in deer is undertaken opportunistically, there is insufficient information to determine the status of its health at this time.

**N/R
(not rated) GRASSLAND ECOSYSTEM INDICATOR**

Grasslands, covering less than 5% of the park (Figure 12), were chosen as an indicator that is very important in providing forage and cover for numerous species. A sensitive indicator, grasslands are highly susceptible to environmental disturbances such as over-grazing, weed invasion and forest encroachment.

Grasslands are not rated as they require further monitoring.

Native Plant Diversity, Distribution and Abundance – This measure is not yet rated; the diversity, distribution and abundance of native plants in grasslands are currently being assessed. This measure was selected because native plants are an integral component of the ecological integrity of the grassland ecosystem.

Grassland monitoring sites were established in 2005 to obtain baseline information on native plant diversity, distribution and abundance. A noxious weed eradication program is carried out to facilitate the re-establishment of native plants. This program was expanded in 2009 in an attempt to mitigate the continual invasion of noxious weeds.

Grassland Cover – Grassland cover is also as yet unrated, needing further assessment. This measure was selected because the size or extent of cover is critical to this indicator’s persistence on the landscape. Forest encroachment is a significant threat to grasslands.

A target of 10-15% has been determined for grassland cover in Elk Island (Parks Canada 2004). Currently, grasslands cover less than 5% of the park and any further loss would be detrimental to its viability (Figure 13). Changes to grassland cover will be monitored by sampling field sites and completing spatial analyses. The present fire management program is being reviewed in order to develop a strategy to reduce forest encroachment and restore grasslands.

Measures	State
Native Plant Diversity, Distribution and Abundance	N/R (not rated)
Grassland Cover	N/R (not rated)

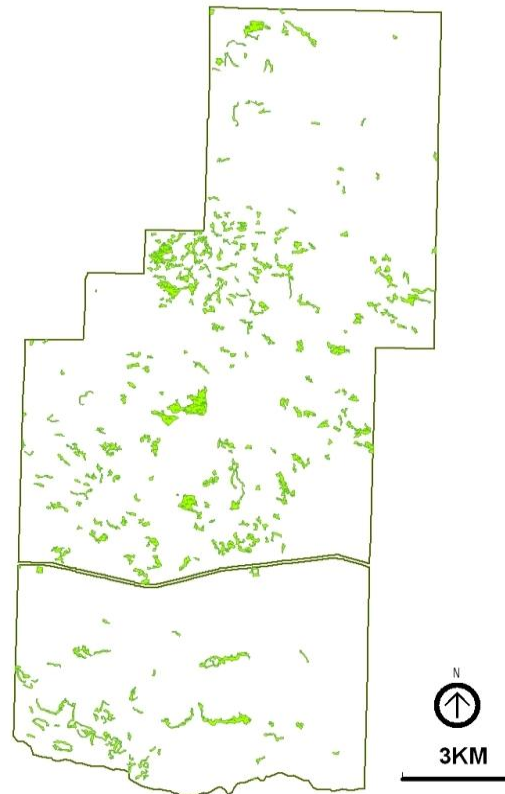





Figure 13: Distribution of grassland area



LAKE ECOSYSTEM INDICATOR

The lake ecosystem indicator in Elk Island, rated as fair and declining, is primarily affected by declining water levels that have occurred over the past 10 years. Situated within a modified agricultural landscape, park lakes are no longer supported by a connectivity to external watersheds. An important source of fresh water and fish to Astotin Lake, Astotin Creek was dammed upstream decades ago.

Covering approximately 5% of the park, the lakes are shallow, eutrophic water bodies. This indicator was selected because it is one of the four major ecosystems in the park, providing important habitat for water birds and other aquatic species.

Measures	State
Lake water levels	
Lake Water Quality	N/R (not rated)
Water bird abundance	
Trumpeter swan abundance	

Lake Water Levels – Lake water levels are poor and declining as a result of the prolonged drought in east-central Alberta. In fact, several lakes within the region have almost dried up.

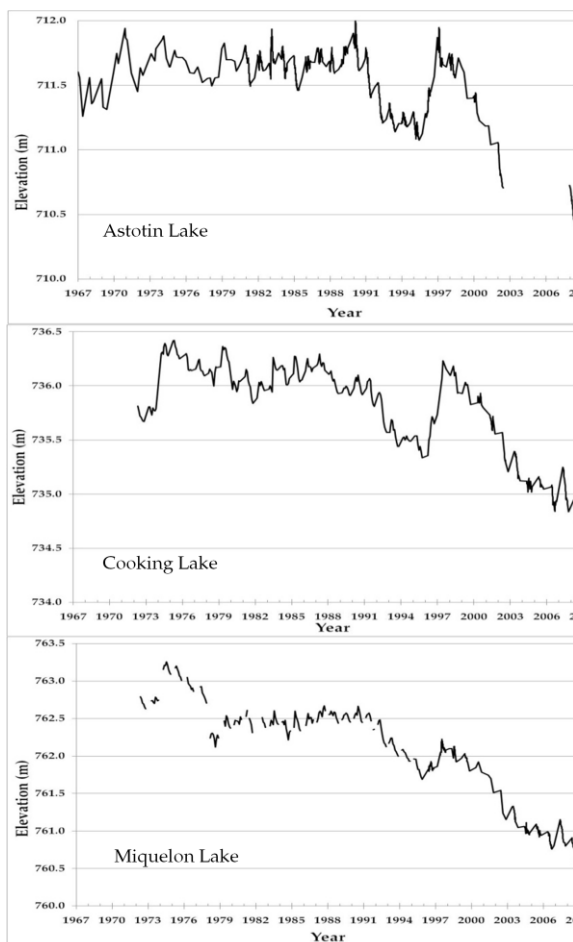


Figure 14: Comparison of lake water levels

Figure 14 illustrates lake level declines in Astotin and two other nearby lakes outside of Elk Island (Alberta Environment 2009). Lake levels were chosen as a measure because receding water levels in lakes impacts their integrity and viability. Water levels have been measured for Astotin Lake since the 1960s. Astotin Lake is a sample point for Alberta Environment. However, since data was not collected in the park between 2002 – 2008, comparison between Astotin Lake and nearby lakes is possible only until 2002. Active monitoring at Astotin Lake was reinstated in 2008 to again permit regional comparison in the future.

Lake Water Quality – Lake water quality is not rated due to insufficient information. This measure was selected for its influence on lake health. In 2008, baseline water quality samples for Astotin Lake were obtained by Alberta Environment and are currently being analyzed. A monitoring program will be initiated in 2010 that tests and measures microbial community-level physiological profiling to estimate the health of park lakes.

Water Bird Abundance – Water bird abundance is fair and declining and involves monitoring of white pelicans (*Pelecanus erythrorhynchos*), great blue herons (*Ardea herodias*), black-crowned night herons (*Nycticora nycticorax*), double-crested cormorants (*Phalacrocorax auritus*) and red-necked grebes (*Podiceps grisegena*). Receding lake water levels significantly influences the availability and quality of nesting habitat and food sources for water birds and other aquatic organisms. Declines in red-necked grebes and black-crowned night herons are consistent with overall declining trends observed in the surrounding region. An exception, however, is the double crested cormorant that has declined considerably in the park but has increased overall within the province over the past several years (U.S. Geological Survey and Canadian Wildlife Service 2010).

Trumpeter Swan Abundance – Trumpeter swan (*Cygnus buccinator*) abundance is fair and increasing in the park and surrounding area as illustrated in Figure 15 (Parks Canada 2009c). Trumpeter swans were chosen as a measure because their population is influenced by changes to lake ecosystems. Unlike other water bird species in the park, the trumpeter swan population is slowly increasing because of the amount of unoccupied swan habitat. The trumpeter swan was reintroduced to the park from 1987 after being absent for over 100 years. The reintroduction program in the park continued until 1999 when it was determined that the species was making a gradual and somewhat steady increase. Meeting the target of 6 to 8 breeding pairs, eight breeding pairs of swans were recorded inhabiting the park and surrounding area in the 2009 survey.

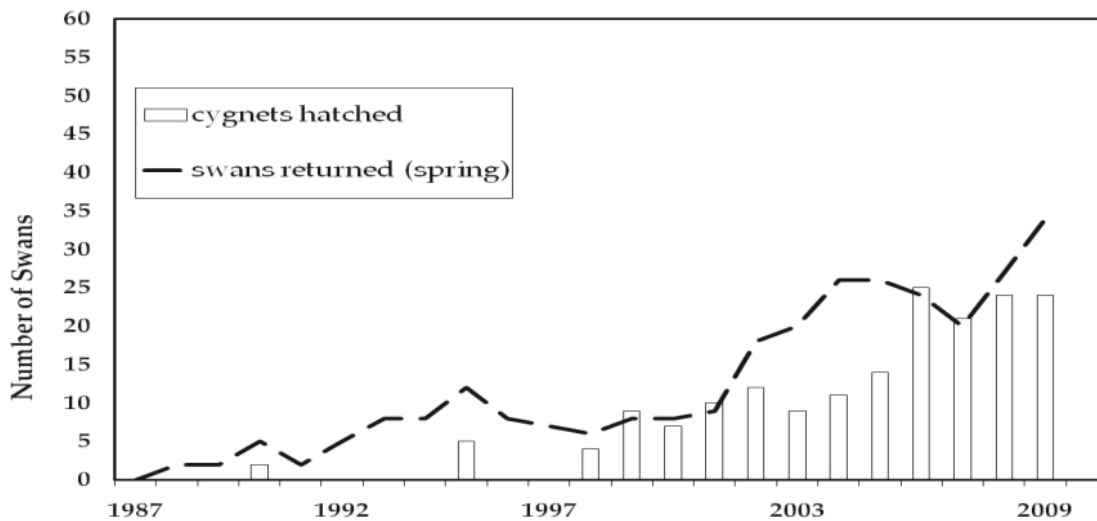


Figure 15: Trumpeter swan abundance

N/R
(not rated)

WETLAND ECOSYSTEM INDICATOR

Wetlands cannot be fully assessed until additional monitoring takes place. Wetlands cover approximately 20% of the park and were chosen as an indicator because they support a high diversity of wildlife species. Riparian areas serve to connect the forest and wetland ecosystems. A high diversity of both plant and animal species inhabit this area. Therefore any disturbances to wetlands could result in significant changes to the park's biota. Wetlands have declined regionally over the past 10 years.




Figure 16: Western toad (*Anaxyrus boreas*) with radio transmitter
Photo credit: C. Browne

Wetland Diversity and Distribution –

Wetland diversity and distribution will not be rated until sufficient monitoring information is obtained. This measure was selected because it defines the ecological integrity of wetland ecosystems across the landscape. Changes to wetland diversity and distribution will be monitored using remote sensing technology and other methodologies to obtain benchmark data.

The connectivity of wetlands had been affected by park roads. As part of the resurfacing of the Parkway in 2008, some subsurface areas were reconstructed and appropriately sized culverts were installed, resulting in an improvement in wetland water flow.

Measures	State
Wetland Diversity and Abundance	N/R (not rated)
Amphibian Diversity	N/R (not rated)
Beaver Abundance	
Riparian Condition	N/R (not rated)

Amphibian Diversity – Amphibian diversity is currently not rated as only one survey has taken place. This measure was selected because amphibians are sensitive to environmental degradation and are monitored globally. The 2004 survey indicated that amphibian diversity in the park includes primarily populations of boreal chorus frogs (*Pseudacris triseriata*), wood frogs (*Rana sylvatica*), tiger salamanders (*Ambystoma tigrinum*) and western toads (*Anaxyrus boreas*) (Figure 16). Amphibians have been monitored by the Alberta Research Council and the University of Alberta, using pitfall traps, call surveys and radio telemetry. Western toads have also been studied by a University of Alberta student (Browne 2008).

Beaver Abundance and Distribution – American beaver (*Castor canadensis*) numbers are poor and declining due to receding water levels. Beavers were selected as a measure for their ability to have a profound effect on wetlands by impounding water and logging wetland perimeters.

Beaver were almost extirpated in Elk Island prior to the 1960s. In the early 1960s, the beaver population began to increase as a result of their movement into the park from neighbouring lands.

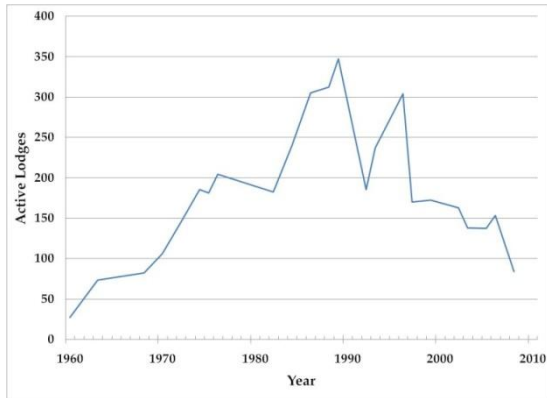


Figure 17: Active beaver lodges

A survey undertaken in 2009 determined the number of active beaver lodges to be below the recommended minimum number of between 100 and 600 active colonies for the park as illustrated in Figure 17 (Parks Canada 2008d).

If drought conditions persist, beaver abundance and distribution could be further reduced, thereby detrimentally impacting wetlands. However, it is anticipated that the beaver population may recover with increased precipitation.

Riparian Condition – Riparian condition is yet not rated as only one survey has taken place. This measure was selected because these areas provide vital habitat for numerous species and is also a monitoring site in the provincial monitoring program.

N/R
(not rated) **SPECIES AT RISK INDICATOR**

Elk Island has three species at risk identified under Schedule 1 of the *Species at Risk Act* (Environment Canada 2010): the wood bison (*Bison bison athabascae*), the western toad (*Anaxyrus boreas*) and the yellow rail (*Coturnicops noveboracensis*). The Management Area Rank (MA) listed in the table below, is a Parks Canada based site assessment for each species (Parks Canada 2010). The Management Area rankings applicable to Elk Island are defined in the glossary.

Species Name	SARA Designation	Managed Area Rank
Wood Bison	Threatened	MA3 vulnerable
Western Toad	Special Concern	MA3 vulnerable
Yellow Rail	Special Concern	MAU (Unrankable, currently under review)



Figure 18: Release of Elk Island wood bison into the Republic of Sakha, Russian Federation
Photo credit: Vasily Tikhonov

Wood bison – Nationally, wood bison are listed as “Threatened” under the *Species at Risk Act* (SARA). This herd was introduced into the park in 1965 for the purpose of recovering the species (Parks Canada 1987a). This population is ranked as vulnerable because its ability to increase in size is limited by the boundary fence. While the 2005 management plan envisioned wood bison remaining in perpetuity as this population serves as a nursery herd for restoration projects

across the world (Figure 18), it is not identified as a population contributing towards national conservation targets. Possibilities exist that wood bison numbers in wild herds across Canada will stabilize, leading to delisting of the species and the need to consider the future of this wood bison herd in Elk Island.

Western toad – This amphibian is listed by SARA as a species of special concern, as supported by research undertaken by the University of Alberta and provincial surveys. This species is ranked as vulnerable because of its restricted range and recent, province-wide declines. With only one survey completed in 2004 at Elk Island, there is insufficient information to determine the in-park status of the western toad and additional surveys are planned in order to obtain more information on this species in the park.

Yellow Rail – This bird is listed as a species of special concern in SARA, however, Parks Canada currently ranks this species as ‘unrankable’ due to conflicting information relating to its status and trend (Parks Canada 2010). Although the park is located in the expected breeding range of this species, its secretive nature makes it difficult to observe, resulting in questionable and inconsistent observations.

 **CULTURAL RESOURCES CONDITION INDICATOR**

The condition of cultural resources is assessed using three different measures: archaeological sites, archaeological collection and historic buildings. The overall rating for the cultural resources is fair and increasing.

Archaeological Sites – Archaeological sites within Elk Island are described as Aboriginal hunting camps. More than two hundred of these sites have been inventoried. While some are more vulnerable to disturbance because they are found on the ground surface, the majority are evaluated to be stable and overall in fair condition .




Measures	State
Archaeological Sites	
Archaeological Collection	
Historic Buildings	



Figure 19: McKean’s point arrowhead © Parks Canada

Archaeological Collection – The archaeological collection consists of artefacts such as arrowheads and hide scrapers. Overall, this collection is stable and rated in good condition and is stored in the Parks Canada Western and Northern Service Centre (Calgary and Winnipeg).

Historic Buildings – Four buildings in Elk Island have been identified as having historic value and are recorded in the Register of the Government of Canada Heritage Buildings by the Federal Heritage Buildings Review Office (Public Works and Government Services Canada 2007).

The Ukrainian Pioneer Home (Figure 20) is a 'Classified' building that is presently being restored; its condition will improve from fair to good in 2010 (Parks Canada 1992a, 1992b, 1993, 2009d). The three other 'Recognized' heritage buildings: the Superintendent's Residence (Parks Canada 1987b, 1988a; Public Works and Government Services Canada 2009), the Pavilion (Parks Canada 1987c, 1987d, 1988b, Public Works and Government Services Canada 2009) and the Farm Headquarters Horse Barn (Parks Canada 1995a, 1995b, 1997, 2009; Public Works and Government Services Canada 2008) are all rated as fair.



Figure 20: Ukrainian Pioneer Home
© Parks Canada

**SELECTED CULTURAL RESOURCES
MANAGEMENT PRACTICES INDICATOR**

The park has not completed its cultural resource values statement (CRVS). Selected management practices for cultural resources are considered under the following four measures: Inventory, Evaluation, Cultural Resource Management Strategy and Monitoring. Overall for Elk Island, these measures are rated as fair.

Inventory – All three cultural resource measures have been inventoried and are rated as good.

Evaluation – The rating for the evaluation measure is fair. The CRVS is used to evaluate cultural resource management levels and the nature of a resource's historic value (physical values and human themes). While the park does not have a CRVS, steps are being taken to document important areas in the park.

Measures	Trend
Inventory	●
Evaluation	▼
Cultural Resource Management Strategy	▼
Monitoring	▼

The park has an Archaeological Resource Description Analysis (ARDA) that was developed from monitoring park archaeological sites. The ARDA is inventoried in a spatial database and stored in the Parks Canada Western and Northern Service Centres (Calgary and Winnipeg).

Cultural Resource Management Strategy – The rating for this measure is fair. While the majority of the background work is done, the overall strategy has not been completed. Completed portions include the identification of the park's cultural resource management priorities, development of a thematic framework, updating inventories and evaluations. This document will be periodically updated.

Monitoring – Although a formal cultural resource management monitoring program has not yet been developed, this measure is rated as fair because not all measures are currently monitored.

 **VISITS INDICATOR**

The visits indicator trend is increasing. With attendance having increased by 15% in the last five years, Elk Island now attracts nearly 200,000 visitors each year. This world-renowned destination for wildlife viewing is home to a large number of bison, elk, moose, deer, beaver, and over 230 species of birds. Located near metropolitan Edmonton, with an urban and rural population of one million people and with continued improvements to infrastructure, this unique national park expects a continued increase in attendance consistent with Parks Canada Agency corporate goals.

Measures	Trend
Attendance	↑
Satisfaction – Information	↔

Attendance – Park attendance is increasing. Attendance peaked at just greater than 366,000 person visits a year between 1976 and 1985 during the last economic boom in Alberta. During this ‘hay day’ period, parking lots, day use areas, trails, the campground, picnic shelters, and the parkway were teeming with visitors and their vehicles. Ecological integrity was of a lesser concern than tourism and recreational activities. Ungulate populations were extremely high, facilitating better wildlife viewing opportunities but having a negative effect on the forest understory. Water sports contributed to the decline in waterfowl populations and the sheer volume of visitors impacted vegetation growth along the trails and in high use areas.

With construction of significant Edmonton area attractions, such as Fort Edmonton Park (1974-1990s), John Janzen Nature Centre (1976), Muttart Conservancy (1976), Telus World of Science (1984), and the West Edmonton Mall (1981) followed by an economic downturn, visitation at Elk Island fluctuated then steadily declined. Coinciding with this period, Elk Island began to balance recreational opportunities and tourism with a new interest in ecological integrity. The park introduced an ungulate reduction strategy and motorized boating was banned to allow waterfowl to recover. Buildings such as the outdoor theatre and bandstand were removed. While activities were being restricted, suitable replacements were not introduced or offered.

In 2004, Elk Island began to experience a slow but steady increase. Current visitation now averages nearly 200,000 person visits a year (Table 4). Over the past five years, Elk Island’s

	2004-05	2005-06	2006-07	2007-08	2008-09	Change During Reporting Period
Elk Island	171,447	180,946	182,736	186,855	198,231	+15.6%

Table 4: Five-year SoPR Attendance Data

Note: Future visitor numbers may be adjusted as a result of possible changes to the data analysis methodology.

visitation has increased approximately 15% over the past five years. This is ten percent more than the Alberta Central Tourism Destination Region that experienced only a 4.5% increase during the same period (Government of Alberta Tourism, Parks and Recreation 2004, 2009a, 2009b, 2010). While Canada and especially Alberta were experiencing a second significant economic downturn, early visitation statistics for Elk Island during 2009-10 remained strong.

This continued increasing visitation trend is supported by the visible seasonal presence of interpretation and visitor services staff following the Engaging Canadians re-alignment and interesting new learning opportunities such as bird watching, Nordic skiing, and night sky viewing in this part of the Beaver Hills Dark Sky Preserve. The much needed infrastructure improvements, such as municipally provided potable water and resurfacing of the Parkway, has improved the attraction of Elk Island by addressing the most significant sources of visitor complaints.

Even still, further infrastructure improvements are needed, such as the location and capacity of buildings, facility design, common architecture, and year round occupancy. A visitor experience concern, visitors often enter and leave the park without having had a personal interaction with staff. Constraints include having a small staff complement in the summer relative to the services provided and year round park staff remotely located 10 km away on the other side the Astotin Lake Recreation Area, the primary visitation node situated 14 km north of the Visitor Centre at the south entrance to the park.

Without well placed facilities, few staff, and under-developed area concepts for the park, Elk Island will continue to under-achieve its potential to engage over one million people who reside within 100 km of the park. There exists excellent potential for Elk Island to offer Canadians a window to Parks Canada and a Living Classroom, inspiring new partnerships with Edmonton universities, schools, new Canadians, Aboriginal communities and others.

Satisfaction with Information (or Trip Planning Tools) – This measure is rated as stable, with no significant improvements or declines (with the exception of road signage) over the last five years. Of the 22% of travellers who have never visited Elk Island before, the main pre-trip sources of information for first time visitors are the Parks Canada website (45%), maps (39%), suggestions from friends and relatives (28%) and travel/guidebooks (23%). Since 73% of visitors are from the local area and 85% of this group are repeat visitors, the majority (53%) use their past experience when planning trips to Elk Island. These percentages are consistent with previous survey figures since 1998 with the exception of the website.

In the Elk Island National Park Patterns of Visitor Use (Patterns of Visitor Use) Survey 2005/06² (Ipsos Reid 2008), visitors were asked about their satisfaction with the availability of information prior to their visit. They rated the Parks Canada website and roadside directional signage as requiring immediate attention. Pre-trip information and publications were also rated as needing attention. Previous surveys indicate that visitors rated roadside signage as being excellent to satisfactory, which indicates that these assets are at the end of their life expectancy.

² Statistical visitor information for the months of July and August has been extracted from the Patterns of Visitor Use Survey (Ipsos Reid 2008) to match the standard reporting data for Parks Canada.

Once in the park, close to half of the visitors (44%) indicated that they used the Elk Island Visitor’s Guide as a source of information; the publication itself was not rated. Past surveys visitors have rated ‘the park newsletter’ or ‘park guide’ as being satisfactory to excellent. Given the high reliance that visitors place on obtaining pre-trip information from the Parks Canada website and the low satisfaction visitors expressed related to this resource, immediate attention must be devoted to addressing this deficiency. With a clear and nationally consistent approach to a complete Trip Planning Cycle, methods for improvement in these areas will be attainable.

The park’s 1999 Marketing Plan needs to be updated. New information that must be included is the Parks Canada Agency Vision for Visitor Experience; Explorer Quotient and survey information; changes to regional demographics and growth trends; and trip cycle planning information. This new marketing plan will be a key factor to ensuring that Elk Island remains



Figure 21: Astotin Lake © Parks Canada

relevant to Canadians. It will also guide how Elk Island connects with the local and regional tourism industry, maintains and develops partnerships, products and advertisements while identifying target markets and gaps, and conveying clear messages about visitor experience opportunities. By taking a market based approach the park will have a clear idea of who our current visitors are; who potential visitors could be and what their needs are; how to define new areas for product and service development to match new visitor segments; how to deliver messages specific to each segment; and how to prioritize investments and align promotion

strategies with local, regional and national priorities.

Without a devoted marketing staff person and by using an outdated marketing plan, Elk Island remains vulnerable. Staffing a marketing position will address this shortcoming and better position the park to be more visible in the marketplace. Improvements to the plan should increase the number of person visits and enhance visitor experience.



LEARNING INDICATOR

The trend for personal learning opportunities is improving. Considerable effort has been invested since 2005 to both provide and improve learning opportunities. On-site interpretation is provided during summer weekends, with four to five programs and roving or point duty services primarily offered on weekends during July and August.

Learning – Over the last 5 years, service offers have varied to include a combination of the following programs: evening theatre; guided hikes; guest speaker series; roving interpretation;

Measures	Trend
Learning	↑
Satisfaction with learning	↔
Understanding of message	↓

interpretive display table; Junior Naturalists pond dipping; Junior Naturalists tracks and traces; art programs; puppet shows; crafting; storytelling; and scavenger hunts. Attendance at these programs is variable and sometimes weather dependent. The interpretive service offer continues to improve and evolve each year in an attempt to provide new and unique program opportunities and maximize the number of visitors reached. As staffing is limited and is seasonal in nature, gaps still remain in the service offer during weekdays in the summer and the fall and winter season.

YEAR	NUMBER OF STUDENTS
2003	3,388*
2004	2,237*
2005	2,531*
2006	1,709*
2007	3,037*
2008	2,550
2009	2,133

Table 5: Environmental Education Statistics
*estimated attendance



Figure 22: Environmental Education Programming
© Parks Canada

Environmental education programming is offered primarily throughout the spring and fall with some limited programming available in the summer. Current funding supports two seasonal park interpreters who deliver both on-site curriculum-based environmental education programs to school aged students and summer interpretive programs. In contrast, the Ukrainian Cultural Heritage Village and Strathcona Wilderness Centre offer similar programs directly adjacent to the park with a staff complement of between twenty and twenty-two seasonal interpreters. At Elk Island, requests by schools for additional programming exceed staffing placements – over 1400 students are turned away each year. Comment form feedback left by teachers indicates that there is a very high level of satisfaction related to knowledge of staff and links to curriculum content and, importantly, also for the overall park experience.


The potential to increase performance expectations in this area will directly coincide with the ability to provide additional resources, such as staff or volunteers to increase opportunities for students to learn curriculum related information in the park.

Non-personal learning opportunities are limited to outdated exhibits along trails, trailhead signage that is now reaching the end of the expected life cycle; extremely dated displays in the Visitor Centre and Astotin Lake Theatre; and facilities that are operated seasonally on a limited basis. Nonetheless, park messages remains relevant and new investments to replace equipment and some displays in the theatre now support quality personal interpretation programs, special events, guest speaker presentations, and environmental education programs. New visitor experience and interpretive plans are currently being developed. These plans will assist in setting the direction for facility redesign, exhibit renewal, and introduction of new technologies.

Satisfaction with Learning - The Patterns of Visitor Use Survey (Ipsos Reid 2008) indicates that few visitors (9%) participated in the offered interpretive activities yet provides no explanation for this. In the 1999 Astotin Lake Visitor Survey, visitors were less than satisfied with staff-led activities and guided tours and indicate that their dissatisfaction can be explained by staff absence on days when visitors were in the park. However, in all surveys, visitors to the park

are overall very satisfied with most of the interpretive service offers. The Patterns of Visitor Use Survey (Ipsos Reid 2008) indicates that the interpretive display table was identified as being the service offer visitors are not satisfied with. Again, there are no comments that would explain this result although poor quality exhibits may be a contributing factor. Visitors were very satisfied with the evening theatre programs, the Junior Naturalist programs, guided hikes, special event activities or presentations and informal interactions with interpretive staff.

Understanding of Message – The Patterns of Visitor Use Survey (Ipsos Reid 2008) indicates that there is a lack of knowledge by visitors about interpretive messaging. Only two of the six questions asked were answered correctly by at least half of visitors upon exiting the park. Opportunities are being lost and may reflect unclear park messaging, low availability of staff, preference for a different method of communication or simply visitors coming to experience other types of activities with fewer opportunities for learning. As this is a similar pattern in previous surveys, further social science information is required in this area to determine whether this can be attributed to the lack of staff providing park messaging when visitors are present, message or method of delivery, or other contributing factors.

 **ENJOYMENT INDICATOR**

This indicator is measured by the visitors’ an overall satisfaction with the facilities they used, services that are provided, activities available and participated in, and with their interactions with staff. Overall, the enjoyment trend is improving. Table 6 at the end of this section presents information from the Patterns of Visitor Use Survey (Ipsos Reid 2008) used to measure visitor enjoyment in Elk Island.

Measures	Trend
Extent of Enjoyment	↑
Satisfaction with Facilities	↔
Satisfaction with Services	↔
Satisfaction with Activities	↔
Satisfaction with Staff	↑

Extent of Enjoyment – In the Patterns of Visitor Use Survey (Ipsos Reid 2008), almost all visitors in both the Sightseers (92%) and Naturalists (95%) segments describe their visit to Elk Island as ‘enjoyable’ with a rating of four or five on the five-point scale. Three-quarters (75%) of visitors say they will definitely or probably plan another trip in the next two years, with 62% saying they definitely will.

While ‘enjoyment’ was not rated in previous surveys, visitors indicate that they would probably plan another trip and/or definitely return. Also, supporting the theory that staff contributes to visitor experience, visitors rated staff as ‘contributing to peoples’ enjoyment’ at 79% (Parks Canada 1999).

Satisfaction with Facilities – Consistent throughout the surveys (1998-2008), visitors indicated that they were ‘very satisfied’ with the condition of park facilities overall, although the condition of campsites was rated as ‘needs attention’ in both the Patterns of Visitor Use Survey (Ipsos Reid 2008) and Campground Survey (Parks Canada 2000). Other areas for attention include: reducing vegetation overgrowth on trails and around facilities; updating the design of the Sandy Beach Campground, as well as upgrading the campground services.

Satisfaction with Services: – Visitors were ‘very satisfied’ with the service time at entry gates while the overall rating for service time at the campground, Visitor Centre and day use area was rated as ‘may need attention’. Since the Patterns of Visitor Use Survey (Ipsos Reid 2008) was conducted, improvements have been made to increase the presence of staff in the above noted areas. Areas still requiring attention include: providing a visitor welcome and having exhibits at the Visitor Centre; situating staff in closer proximity to visitors; and increasing access of staff to visitors.

Satisfaction with Activities – Visitors participated in a range of activities during the survey timeframe. These included driving and viewing wildlife from both inside and outside of a vehicle, short and long walks/hikes, eating inside/outside a restaurant, golfing, relaxing, sightseeing, bird watching, warm weather and winter activities, visiting with others, education/interpretive programming, canoeing, cross-country skiing, snowshoeing, sailing, and kayaking. The most popular activity was driving and viewing wildlife (48%), followed by short walks and hikes (41%). The level of satisfaction with individual activities was not specifically rated, although an overall visitor satisfaction rate of 95% would indicate that there is an above average level of satisfaction with these activities. This supports the 1999 Astotin Lake Visitor Survey (Parks Canada 1999) where visitors rated their satisfaction with overall recreational experience at 88% and an overall rating of stay at 94%.

Satisfaction with Staff – Visitors were ‘very satisfied’ in elements related to staff including knowledge, courteousness, and quality of service which is again consistent with previous survey ratings of ‘excellent’ and ‘very pleased’.

Element	Needs Attention	May Need Attention	Very Satisfied
Availability of campsites & value for your money		X	
Availability of hiking trails			X
Availability of picnic/day use areas			X
Condition of park washrooms		X	
Condition of your campsite	X		
Condition of picnic/day use areas		X	
Condition of hiking trails		X	
Condition of park facilities overall			X
Condition of Visitor Centre		X	
Service time at entry gates			X
Service time at campground, Visitor Centre, day use areas		X	
Value for money at attraction/activities		X	
Parks staff knowledge & courteousness			X
Quality of service			X
This visit as a memorable experience			X
This visit meeting your expectations			X
Overall satisfaction with your visit			X

Table 6: *Enjoyment Indicator Elements. Table 15 of “Elk Island National Park Patterns of Visitor Use Survey 2005/06”*



SATISFACTION INDICATOR

The satisfaction indicator trend at Elk Island is stable with the exception of satisfaction with fees – camping which has declined. Four elements are associated with the satisfaction indicator (Table 7) including satisfaction with overall visit, satisfaction with entrance fee (which includes ‘value my money’), and satisfaction with camping fee.

Measures	Trend
Satisfaction – Overall	↔
Satisfaction with Fees – Entrance	↔
Satisfaction with Fees – Camping	↓

Satisfaction - Overall – Considered as the most important opportunities, visitors are most satisfied with being in a peaceful, quiet place, experiencing the natural outdoors; spending time with friends and family; and getting high quality services. Information extracted from the survey to determine this factor indicates ninety-five percent (95%) of visitors are ‘satisfied’ with their visit and 63% ‘very satisfied’. This trend remains stable with a slight increase over previous surveys and is higher than the Parks Canada performance standard of 85% ‘satisfied’ and 50% ‘very satisfied’.

Satisfaction with Fees – Entrance (value for my money) – 84% of visitors surveyed are either satisfied or very satisfied with value for entrance fees a trend which remains consistent throughout survey information over the years. According to visitor comment feedback, areas identified as ‘requiring attention’ that were not already addressed by infrastructure improvements include: clearer directional signage; access to staff year round; improvements to outdated exhibits; and learning and recreational opportunities.

Value for my money was one area that was highlighted by visitors as needing ‘immediate attention’. Only 41% of those surveyed rating the park as being ‘good valued for my money’. The survey instrument did not request information on specific concerns and further research is required to better understand this opinion. ‘Value for money’ was rated as quite satisfied in the Astotin Lake Survey (1998-99) and as very good in the Interim Elk Island Gate Survey (1998).

Elements	Result of Survey
Visit overall	95% ‘satisfied’ and 63% ‘very satisfied’
Value for entrance fee	84% are ‘satisfied’ or ‘very satisfied’ with value for entrance fee and rated it as a 4 or 5 on a five-point scale.
Value for my money	41% of visitors indicated that they received ‘good value for my money’. While this percentage is lower than desired, visitors rated value for their money as being of a low priority to them.
Value for camping	Rating was ‘may need attention’. Attributed to the design, condition and availability of campsites, service time, survey occurring during early stages of implementing the campground reservation service, and finally lack of power, water, and sewer amenities in campground.

Table 7: Elements of Satisfaction Indicator. Information extracted from Elk Island National Park Patterns of Visitor Use Survey 2005/06

Satisfaction with Fees - Camping – This measure continues to decline. Camping opportunities at Elk Island are limited to Oster Lake Group Camping and Sandy Beach Campground. Oster Lake is a rustic group tenting campsite that requires pre-booking and is available on a first-come-first serve basis. Campers are required to pack in and pack out their gear and are limited to one vehicle on site for safety purposes only. Sandy Beach Campground has 78 unserviced sites with washrooms and showers nearby. Sites are small, having been designed for tents, not recreational vehicles. With improved marketing and over time, the Parks Canada Reservation Service has become more popular, leading to the pleasant consequence that Sandy Beach Campground is now in high demand on weekends. However, survey information in the Campground Survey (Parks Canada 2000), complaints, and anecdotal comments from campers at the Sandy Beach Campground indicate that satisfaction would improve with a full service hook-up offer, larger sites with clear delineation, and an increased level of services for new users.

N/R (not rated) MEANING INDICATOR

Meaning is measured through a new question in visitor surveys that focuses on the place being meaningful to the visitor. In the case of Elk Island, while not included in the last Patterns of Visitor Use Survey (Ipsos Reid 2008), this measure will be incorporated into the new study planned for 2010/11.

Measure	Trend
Connection to Place	N/R (not rated)

Consistent with previous surveys, Elk Island’s last Patterns of Visitor Use Survey (Ipsos Reid 2008) indicated that being in a peaceful, quiet place, spending time with friends and family, and experiencing the natural outdoors are the most important opportunities for park visitors. Surveyed visitors indicated that these are also the opportunities they are the most satisfied with. Since visitors found those opportunities to be the most important and satisfying, we may expect that they are having meaningful experiences.

Visitor Origin:	%
Edmonton	48
Around Elk Island	10
Sherwood Park	9
Fort Saskatchewan	6
Other Alberta	6
Calgary	2
Other Canada	5
United States	4
Overseas	10

Table 8: Visitor Place of Origin

Parks Canada is working towards a common strategic outcome in which Canadians have a strong sense of connection to their heritage places. The sum of all visitor experience indicators, comprised of visits, learning, enjoyment, satisfaction and meaning, is expected to lead to the sense of personal connection to places visited.

More social science information is needed to fully understand the personal connection that visitors and local area residents have with Elk Island. However, with almost half (48%) of the visitors being from Edmonton (including St. Albert and Spruce Grove) and another 25% of visitors from the area surrounding Elk Island (including Sherwood Park and Fort Saskatchewan), it is expected that visitors have a high degree of connection with Elk Island.

N/R
(not rated)

APPRECIATION AND UNDERSTANDING INDICATOR

This program activity aims to reach Canadians at home, at leisure, at school and in their communities through communication and education opportunities designed to increase awareness, understanding, and appreciation towards the natural and historical heritage of Parks Canada. Though efforts have occurred in outreach education and working together with external partners, this reporting should be considered as the benchmark since there are no comparable data and there exists significant gaps in marketing and external communications.

Measures	Trend
Outreach Education	N/R
External Communications	N/R

Outreach Education – Until 2004, Elk Island did not have a formal outreach program. Outreach was based on opportunistic invitations to schools or events that took place in the local and regional communities. To some extent, this opportunistic approach still exists today.

Since 2004, outreach programs have been conducted primarily between September and May while school is in session. During this time, a minimum of one program per week on average is delivered, depending upon staff availability. Target audiences are Grade 4 classes in the Beaver Hills Initiative counties of Strathcona, Lamont, Beaver, Leduc, and Camrose, along with the County of Flagstaff and the City of Fort Saskatchewan, Vegreville, and School Districts of Battle River, Black Gold and Buffalo Trail. For these audiences, there is a direct link between Parks Canada and park-specific messaging to the Alberta curriculum. Beginning in the fall of 2009, the scope of target audiences increased to now include the Alberta Grade 5 curriculum.

External Communications – No formal strategy for engaging the general public has been developed beyond the *1999 Elk Island Marketing Plan*. Occasionally, staff make off and on-site presentations to University of Alberta students, local and regional Scouting groups, multicultural groups such as English as a Second Language students and multi-denominational congregations, hunting and fishing associations, Chambers of Commerce, Rotary Clubs and other *ad hoc* groups as requested. Management planning goals to keep the tourism sector informed and ensure that operators promote park messages remain strong. The most significant of external communication efforts is through the Beaver Hills Initiative which provides direct access to inform and influence regional decision makers, such as County Councillors, Municipal Planners and other project leaders.

The External Relations and Marketing position has been vacant or under-filled by term employees for more than four years. As a result, the park has had minimal capacity for communicating through newspaper articles and magazine stories. Of the stories published about the park, most are related to bison and elk conservation efforts. Other articles often pertain to the Beaver Hills Dark Sky Preserve (Elk Island comprises 65% of the area), special events or announcements about special guest speaker presentations. Additionally, all advertisements are either public safety-based or promotional to attract hikers, campers, and skiers or public notices advising of fire bans, tenders, or employment opportunities.

N/R
(not rated)

SUPPORT INDICATOR

Stakeholder and partner support has not been previously measured by Parks Canada or Elk Island and is therefore not rated. In 2009, Parks Canada launched a national survey of stakeholders and partners to gather baseline data on quantifiable insights from these groups. This survey should provide insights into the state of stakeholder and partner support and engagement nation-wide.

Measurement	Trend
Stakeholder and Partner Support	N/R (not rated)

Elk Island is in the process of increasing its ability to effectively communicate and engage local and regional stakeholders and partners. A park advisory group with membership from a variety of stakeholder groups and local governments is in the developmental stage. In December 2007, representatives from the Beaver Hills Initiative, Friends of Elk Island Society, and Beaver Hills Dark Sky Preserve Partnership attended a preliminary “Skills for Working Together” workshop offered by Parks Canada. These groups are expected to play a key role in the management plan review process slated to begin in 2010.

Friends of Elk Island Society (The Friends)

– The longest standing partner group for Elk Island, this registered non-profit volunteer organization was formed in 1984. The Friends operate in cooperation with Elk Island to support the protection and

preservation of the wilderness aspects of the national park. The Friends have supported many projects over the decades including wood bison relocation and trumpeter swan reintroduction projects and coyote and western toad research. This group also promotes, volunteers at, and sponsors annual park events and activities such as the Christmas Bird Count, photo contests, the annual Beaver Hills Dark Sky Preserve designation ceremony, and Parks Day. The Friends has in past operated the gift shop at the Visitor Centre and continue to publish ‘The Trumpeter’ newsletter, often sharing Elk Island stories with the local media. The current membership of the Friends is not currently as active as in the past.

Beaver Hills Initiative membership includes:

- Counties of Beaver, Camrose, Lamont, Leduc, and Strathcona
- Federal Government: Elk Island National Park and Agriculture and Agri-Foods Canada (Prairie Farm Rehabilitation Administration)
- Province of Alberta: Agriculture and Food, Environment, Municipal Affairs and Housing; Sustainable Resource Development; and Tourism, Parks and Recreation
- University of Alberta
- Industry: Alberta Industrial Heartland Association; Fort Air Partnership; Northeast Capital Association; and Strathcona Industrial Association
- Non-government Organizations: Alberta Invasive Plants Council; Alberta Conservation Association; Alberta Fish and Game Association; Alberta Lake Management Society; Beaver Hills Dark Sky Preserve; Ducks Unlimited Canada; Kalyna Country; Nature Conservancy of Canada; North Saskatchewan Watershed Alliance; and Royal Astronomical Society of Canada

Beaver Hills Initiative (BHI) – Elk Island and Strathcona County are the founding proponents of what is now a multi-jurisdictional long-term planning and cooperative group for the Beaver Hills area. With representatives from all five counties in the moraine and around the park, as well as non-government agencies and industrial partners, members of the BHI work together for a sustainable region through shared initiatives and coordinated action.

The BHI functions with a Board of Directors and six working groups including: Communications and Education; Protected Areas; Research and Monitoring; Planners; Geographic Information System; and Municipal Councillors. Elk Island staff actively participates on all working groups, with the exception of the Councillors group. During the past six years, the working groups have accomplished many tasks including the production of a Land Management Framework which is used by local and regional municipal planners to evaluate land development permits. Of significant benefit to Elk Island, the commitment of the partners to use this Framework has led to decisions that have reduced and even prevented harmful development that could fragment habitat corridors near Elk Island.

Beaver Hills Dark Sky Preserve – Formed on September 3rd, 2006, the Preserve was established as a partnership between the Royal Astronomical Society of Canada-Edmonton Centre (RASC), Alberta Tourism, Recreation and Parks, and Elk Island when 300 sq km east of the city of Edmonton were designated by the RASC as a dark sky preserve. As the stewards of the land, the Preserve partners are working to find solutions to light pollution problems. Interest continues and new partners are attracted annually. In addition to the annual September commemoration event, Elk Island now serves as the host site for Edmonton's annual Winter Lights Festival Star Party. Night sky observers, a non-traditional audience for Elk Island, are a new niche market that augments visitation statistics.

Chapter 4 - Performance Rating

In order to achieve its strategic outcome, the Parks Canada Agency Corporate Plan (Parks Canada 2009b) identifies agency-wide expected results and performance expectations for each program. This chapter reports the extent to which Elk Island has achieved its park-level performance expectations which contribute to the Agency's ability to achieve its expected results. These results will help improve or maintain the state of the park (Chapter 3) in areas that the Agency has an ability to influence.

Performance Indicator:
A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of a program.

4.1 Strategic Outcome

Over the past five years, Elk Island has become better known as a leader in conservation through its collaborative efforts in the BHI. Building and lending capacity to neighbouring counties, Elk Island has worked with its partners to maintain the social, economic and environmental health and characteristics of the Beaver Hills area through shared initiatives and coordinated action. The creation of the Beaver Hills Dark Sky Preserve in 2006, with Elk

“Canadians have a strong sense of connection, through meaningful experiences, to their national parks, national historic sites and national marine conservation areas, and these places are enjoyed in ways that leave them unimpaired for present and future generations.”

Parks Canada Strategic Outcome

Island as one of the founding partners and largest contributor to the Preserve's dark sky area, has attracted a new audience of visitors and raises public awareness of the ecological and cultural need for darkness. Elk Island continues its important role as Canada's first wildlife sanctuary, providing Canadians with some of the best opportunities for viewing bison, elk, moose and deer in North America while having restored the ecological health of

the park habitat through more closely managing herds to minimum viable population sizes. Elk Island is highly respected in the wildlife conservation field for offering animals to other provinces, territories and countries for restoration projects and for the level of skill, experience and technical capacity in managing and handling animals that exist here. Elk Island has made good progress in realigning its staffing, operations, programs, infrastructure and finances to ensure focussed contribution to the Agency's Strategic Outcome.

4.2 Performance Ratings

Elk Island has worked to include the Parks Canada Agency Performance Expectations (*Parks Canada Performance Management Framework*) into its operational efforts. For the most part, expectations have been successfully met, as illustrated in the Executive Summary, Figure 2. Performance Rating in Achieving Performance Expectations. Table 3 provides details about the Agency's expectations, the park's rating and the rationale or results that were achieved over the past five years of the *Elk Island National Park Management Plan (Parks Canada 2005a)*.

Table 9A: Heritage Resource Conservation Performance Rating

Performance Expectation	Rating ³	Results/ Rationale
National park management plans are up to date and consistent with latest management plan guidelines by March 2010.	Met All	<i>Elk Island National Park Management Plan (Parks Canada 2005a)</i> was completed in 2005 and a new plan will be completed in November, 2010 as per the <i>Canada National Parks Act</i> .
All national parks have fully functioning ecological integrity monitoring and reporting systems by March 2008.	Mostly Met	Elk Island National Park is implementing a fully functioning ecological integrity monitoring and reporting system (Parks Canada 2008a)
Improve aspects of the state of ecological integrity in each of Canada’s 41 national parks by March 2014.	Somewhat Met	The forest indicator continues to improve. The wetland indicator is not yet rated; as a measure, there are fewer beaver in the park to maintain wetlands as drought conditions persist. The grassland indicator is not yet rated; as a measure, grasslands are impacted by forest encroachment and a significant presence of noxious weeds and other non-native plants.
Minimize environmental impacts of Parks Canada’s operations.	Mostly Met	Environmental assessments are undertaken for all projects and operational activities and are monitored to ensure adherence to program guidelines and policy. The park has implemented a recycling program, uses ethanol enriched gasoline in fleet vehicles, environmentally friendly products, native vegetation in reclamation and adheres to the “Winter Maintenance Guidelines” (Parks Canada 2002). Strategic removal of polluting light fixtures and other dark sky friendly lighting improvements have been made in the Astotin Lake Recreation Area.

³ **Exceeded** - More than 100% of the expected level of the performance was achieved
Met all - 100% of the expected level of the performance was achieved
Mostly Met - 80-99 % of the expected level of the performance was achieved
Somewhat Met - 60-79% of the expected level of the performance was achieved
Not Met - Less than 60% of the expected level of the performance was achieved

Table 9B: Public Appreciation and Understanding Performance Rating

Performance Expectation	Rating ⁴	Results/ Rationale
Maintain 50% participation of national park visitors in learning experiences related to the natural and/or cultural heritage of the national park.	Met All	50% of visitors surveyed stated they are very satisfied with the learning opportunities they participated in. The average satisfaction score is at least 4 out of 5 on a five-point scale.
Maintain 85% visitor satisfaction, with 50% being very satisfied with onsite heritage presentations programming.	Exceeded	95% of visitors at surveyed locations are satisfied with their visit and 63% of visitors at surveyed locations are very satisfied with their visit.
Maintain 75% visitor understanding of the significance of the national park.	Somewhat Met	<p>While outreach education opportunities are limited to staffing availability during the school season, no offer existed in the past. Therefore, an offering of one program per week during winter months began in the fall of 2008 to improve the results of this expectation.</p> <p>The park's role in conservation and preservation of animals remains highly covered in media articles. The significance and importance of maintaining those places administered by Parks Canada is a major focus of wildlife transfers articles and media coverage.</p> <p>In the last Patterns of Visitor Use Survey (Ipsos Reid 2008), only two of the six questions asked were answered correctly by at least half of visitors upon exiting the park. Further social science information is required in this area to understand the cause.</p>
Canadians, visitors and stakeholders actively support the integrity of the national park.	Not Rated	Not rated. Indicator not established during last visitor survey. However, Beaver Hills Initiative partner support is very high and, by implementing a meaningful park management advisory process, this performance expectation is expected to be met.

⁴ **Exceeded** - More than 100% of the expected level of the performance was achieved
Met all - 100% of the expected level of the performance was achieved
Mostly Met - 80-99 % of the expected level of the performance was achieved
Somewhat Met - 60-79% of the expected level of the performance was achieved
Not Met - Less than 60% of the expected level of the performance was achieved

Table 9C: Visitor Experience Performance Rating

Performance Expectations	Rating ⁵	Results / Rationale
Maintain 85% visitor satisfaction, with 50% being very satisfied with their experience at the national park.	Exceeded	95% of visitors at surveyed locations are satisfied with their visit and 63% of visitors at surveyed locations are very satisfied with their visit.
Maximize the number of visitors with memorable experiences at the national park.	Exceeded	Opportunities for creating memorable experiences were increased through planned and advertised programming and maximized opportunities for visitor / staff interaction through special events, evening and weekend interpretive program, and more staff presence in the day use area.
Maximize visitor safety at the national park.	Met all	No reportable or fatal incidences occurred. Visitor safety information is published in both official languages, provided on-site by staff, and is available on the internet.

⁵ **Exceeded** - More than 100% of the expected level of the performance was achieved
Met all - 100% of the expected level of the performance was achieved
Mostly Met - 80-99 % of the expected level of the performance was achieved
Somewhat Met - 60-79% of the expected level of the performance was achieved
Not Met - Less than 60% of the expected level of the performance was achieved

Chapter 5 - Management Plan Results

A long period of time may be required to influence the state of an indicator through management actions. This chapter reports the results achieved by the park in completing its priority actions. Achieving these management actions contributes to maintaining or improving the state of the park (Chapter 3) and assists in achieving park-level performance expectations (Chapter 4).

5.1 Success Story: *Beaver Hills Initiative – Beyond Boundaries*

Elk Island National Park's greatest success is found in addressing one of its greatest challenges – ecosystem protection beyond jurisdictional boundaries.

Following on the recommendations contained in the *Report of the Panel on the Ecological Integrity of Canada's National Parks 2000* (Parks Canada 2000), the Beaver Hills Initiative (BHI) started as a mere thought by Elk Island staff of how to manage ecosystem-based stressors affecting the park that were beyond the 'control' of its management practices and policies. Today, the BHI is a collective of voluntary partners working as stewards for the Beaver Hills area. Partners include Parks Canada (Elk Island as a protected core), Agriculture and Agri-Food Canada, the Alberta government, five counties, along with twenty-two (and still counting) government and non-government agencies, including non-traditional partners such as the petroleum industry.

The vision for the BHI is to work towards protecting the region for its natural beauty and quality of life, and support cooperative efforts to sustain the quality of water, land, air, natural resources, and community development. Using a 'triple bottom line' approach (social, economic and ecological factors), BHI partners work together for a sustainable region through shared initiatives and coordinated action.

Through collaboration, the BHI partners have developed a Land Management Framework based on best practices for planning and decision-making. Local and regional municipal planners now use this framework to evaluate land development permits that ultimately help Elk Island to maintain ecological integrity in this core protected area. Sharing of information and working together on research projects, such as a long-term air quality or weed monitoring programs, brings benefit to the park and the other partners.

The commitment and strength of this partnership continues to grow with every new opportunity. New funding sources are available to the partnership; visitor audiences have emerged and broadened for the park, especially now as part of the Beaver Hills Dark Sky Preserve; research and monitoring is more frequently considered and planned on a greater ecosystem basis; and a forum has been created to deepen the understanding amongst the partners of sustaining this ecosystem for future generations. As part of the continuing growth, the next steps are focussed on increasing public involvement and, most significantly since already working as such in principle, the BHI partners are now in the process of nominating the Beaver Hills area as a biosphere reserve.

By working beyond our boundaries, Elk Island finds its greatest success with our Beaver Hills partners as leaders in using a regional integrative approach to ecosystem management.

5.2 Management Plan Results

The last management plan written for Elk Island was completed in 2005 before Parks Canada's transition to the use of targets to assess whether the actions undertaken contributed to maintaining or improving the state of the park. Consequently, actions to achieve the Agency's Integrated Mandate Priorities (not targets) are reported in this State of the Park report. In 2010, a new management plan will be written that follows the procedures specified in Parks Canada's *Guide to Management Planning* (2008). Table 4 summarizes the assessment of actions implemented as outlined in the *Elk Island National Park Management Plan* (Parks Canada 2005a).

Table 10: Management Plan Results

Integrated Mandate Priorities	Actions	Results
Restore natural vegetation Ecosystem composition, structure and processes	Ungulate herbivory - Implement the reduction strategy for ungulates (1999) to manage the level of grazing within the natural range of variation.	A reduction strategy for ungulates was implemented in 1999. Ungulates are now managed closer to their minimum viable population.
	Prescribed fire - Prepare and implement prescribed burn plans for the park.	<ul style="list-style-type: none"> • Fire management plan is in preparation.
	Beaver Flooding - Monitor wetlands to determine both short and long-term effects.	<ul style="list-style-type: none"> • Beaver surveys are conducted every 3 years.
	Spot spray approximately 10 hectares / year to minimize the spread of weeds.	<ul style="list-style-type: none"> • Five years of treatment has occurred. The herbicide treatment program is currently being reviewed for effectiveness to ensure that sufficient and appropriate treatment of noxious weeds is taking place.
	Collaborate with Beaver Hills Initiative partners on land use initiatives.	<ul style="list-style-type: none"> • Completed a Land Management Framework; • Expertise shared with Municipal Planners; • Strathcona County oil & gas expertise shared with Elk Island; • Joint monitoring programs and research projects related to amphibians, wetlands, and vegetation; • Elk Island GIS staff works one day per week in Strathcona County office on database coordination;

Integrated Mandate Priorities	Actions	Results
<p>Restore natural vegetation Ecosystem composition, structure and processes (Cont'd)</p>	<p>Collaborate with Beaver Hills Initiative partners on land use initiatives. (Cont'd)</p>	<ul style="list-style-type: none"> • Completed a research and monitoring evaluation framework to determine priorities and funding allocations; • Participated in provincial and regional environmental review on transmission corridor; and • Completing Biosphere reserve nomination with National Office support.
<p>Cultural resources associated with Elk Island National Park of Canada are protected and the themes presented as part of the overall park message.</p>	<p>Monitor and maintain the four federal heritage buildings according to the Federal Heritage Buildings Review Office Code of Practices and Parks Canada Cultural Resource Management Policy (1994).</p>	<ul style="list-style-type: none"> • A cultural resources inventory was completed in 2007-08; • Three FRBHO buildings are rated in fair condition. A two year restoration project to return the Ukrainian Pioneer Home (Classified FRBHO building) to good condition will be completed by the end of summer 2010; • The 230 archaeological sites are in fair condition; • Heritage objects such as arrowheads and other artefacts are stored in the Parks Canada Western and Northern Service Centre; and • All educational programs incorporate cultural resource message content.
<p>Provide opportunities and facilities to support memorable visitor experiences while addressing related ecological concerns.</p>	<p>Continued operation of all Parks Canada facilities.</p>	<ul style="list-style-type: none"> • All visitor-related facilities remain operational and open to the public seasonally; • Increased presence of staff and extended operational hours at the Visitor Centre and Astotin Lake Theatre; and • Improved darkness for astronomy programs and viewing at Astotin Lake Recreation Area and serve as host to Edmonton's Winter Light Star Party.
	<p>Increased re-investment - Parkway repaving, potable water, day use areas, trails, campground infrastructure and interpretive programs.</p>	<ul style="list-style-type: none"> • In 2008, \$8.6M was invested into the re-surfacing of the Elk Island Parkway; • In 2007, potable water became available in the Astotin Recreation Area providing safe drinking water to campers, golfers, and all visitors to the day use area; and • New equipment has been purchased for the Astotin Lake Theatre for interpretive programs and special guest presentations.

Integrated Mandate Priorities	Actions	Results
<p>Improve public education and awareness programs and extend the reach of these programs</p>	<p>Include messages about ecological integrity in all major park communication products and activities.</p>	<ul style="list-style-type: none"> • 100% of school programs are curriculum linked and contain ecological integrity messages; • 100% of on-site interpretive programs contain ecological integrity messages; • All products produced by the park (such as the park visitor guide, safety brochures, lure cards, etc.) contain appropriate messages about ecological integrity; • Active participant on the Dow Chemical / ME Global Community Advisory Panel.
	<p>Offer weekly on-site heritage presentation programs during the peak season.</p>	<ul style="list-style-type: none"> • Offerings include Friday and Saturday evening interpretive programs, Saturday and Sunday afternoon Junior Naturalist programs, and special guest presentations.
	<p>Offer programs for the public, staff, local landowners, special interest groups, and local schools about ecological integrity.</p>	<ul style="list-style-type: none"> • 100% of all programs contain ecological integrity message content; • One outreach program per week is available to local school students during the school year; • July and August interpretive programs are advertised in local communities to encourage local landowners and special interest groups to attend; and • Staff Learning Sessions include information about the Beaver Hills Initiative and projects and a park heritage presentation program.
	<p>Collaborate with Beaver Hills Initiative partners on raising awareness and education about land management.</p>	<ul style="list-style-type: none"> • Completed vision and mission for Beaver Hills Initiative and established key Working Groups; • Collaborated to host the 2008 Alberta Lake Management Society Annual Conference for local and regional land owners; • Joint presentations made to promote the value of regional collaboration at conferences and workshops such as Alberta Environment, Alberta Recreation Parks Association Bi-annual Forum; • Developed a Beaver Hills Initiative Communication and Marketing Plan. • Joint advertisements for the Beaver Hills Initiative and partners in local and regional magazines; and • Collaborate in presenting and promoting the Beaver Hills Dark Sky Preserve.

Chapter 6 – Key Issues

This chapter concludes the report and identifies key issues based on the assessments from Chapters 2 to 5. Providing a bridge between the reporting and planning dimensions, the following key issues are among those that will be considered for inclusion in the next management planning cycle:

Outdated Visitor Experience Offer

The park is not achieving its potential to facilitate memorable visitor experience and yet it is well situated and positioned to inspire and engage over one million people who reside within 100 km of the park. Deficient pre-trip web information and few publications contribute to a lack of awareness about the park and Parks Canada's mandate. Once inside the park, rudimentary and outdated exhibits, ineffective signage and small, unserviced campsites for urban campers leave a dated impression of the park and lowered satisfaction with fees, despite recent major investments for parkway repaving and provision of potable water. Further, staff are distantly located from the main visitation node; outside of the peak visitation season, park infrastructure is poorly aligned to support staff and visitor interaction.

Under-developed Urban and Aboriginal Relationships

External to the park, there is a lack of awareness about the park and Parks Canada's mandate due to limited outreach activities, as well as outdated marketing and branding strategies. There are currently no formal or informal cooperative management initiatives or programs between Aboriginal groups and Elk Island.

Unfocussed Educational Message

In the last visitor use survey, only two of the six questions asked were answered correctly by at least half of visitors upon exiting the park. Opportunities are being lost in establishing relevance and possibly the sense of connection with visitors. While Elk Island is well known as a best chance wildlife viewing location, it is and can be so much more. Historic buildings, such as the park system's oldest Superintendents Residence (1907) and the Farm Headquarters Horse Barn (1937) quietly reveal evidence of Elk Island's significance as Canada's first federal wildlife sanctuary and its important role through time in wildlife conservation. Is it a question of identity, the message or the delivery that leaves visitors unsure of the role and importance of this national park or are peace and tranquility greater attractions than the learning opportunities presented?

Decline of Moose Population in the Main Park Area

The Main Park moose population has declined significantly since 2002 and could lead to the loss of moose in this area. The decline may be related to parasitism by the giant liver fluke (*Fascioloides magna*), a parasite that is often reported to be fatal in moose. More information is required and is currently being collected.

Decline of Grassland Health

Elk Island grasslands are impacted by weed invasion and forest encroachment. Covering less than 5% of the park, the combined loss from these impacts is a significant threat to grassland health. A noxious weed eradication program was expanded in 2009 in an attempt to mitigate the continual invasion of noxious weeds. Fire management that could help

mitigate forest encroachment continues to pose a challenge during this extended period of drought conditions. A balance is needed between the use of fire for restoring and maintaining the park vegetation and reducing the risk to private and public property from fires.

Decline of Water Levels

The drought in east-central Alberta continues to contribute to the decline of water levels in park lakes and wetlands. Receding water levels influence the diversity and distribution of wildlife and plant species in the lakes and wetlands of the park. A similar declining trend has been recorded for the beaver population. While some indicators overall may decline in condition, such as lakes and wetlands, others may improve and expand in extent. There is a need to better understand the natural response pattern of indicators to climatic variation. This will help to determine whether the indicator will be resilient to stress or if it is exceeding its viability range to incur a more permanent decline in condition.

The Future of Wood Bison

Wood bison are a sub-species of bison that were introduced into Elk Island in the 1960s and is currently listed as a 'Threatened' species under the *Species At Risk Act* (SARA). Serving as the national recovery herd, the Elk Island wood bison offer a source of disease-free animals that can be safely reintroduced in its native habitat. While the 2005 management plan envisioned wood bison remaining in perpetuity, the possibility exists that wood bison numbers in Canada will stabilize, leading to delisting of the species and the need to consider the future of wood bison in Elk Island.

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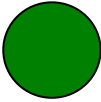

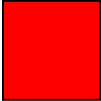
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Glossary

Biota – The total collection of organisms of a geographic region or a time period, from local geographic scales and instantaneous temporal scales all the way up to whole-planet and whole-timescale spatiotemporal scales. [http://en.wikipedia.org/wiki/Biota_\(ecology\)](http://en.wikipedia.org/wiki/Biota_(ecology))

Classified Federal Heritage Building – Parks Canada must maintain the heritage character of the building.

Condition – Indicators and measures are assessed in a State of the Park Report in relation to desired conditions or objectives, if available. Four categories of condition are used (good, fair, poor, and not rated).

	GOOD. The state of the desired result is presently meeting objectives or otherwise is in an acceptable condition.
	FAIR. The state of the desired result is currently exhibiting minimally acceptable conditions, but is not meeting established ecosystem objectives, criteria, or other characteristics of fully acceptable conditions.
	POOR. The state of the desired result is impacted and does not display acceptable conditions.
N/R	NOT RATED. Data is not available or insufficient to assess the state of the desired result. The indicator/measure will be assessed in future State of Reports.

Connection to place – Reflects the relevance and importance of protected heritage places to Canadians. The concept expresses the emotional, intellectual, and spiritual attachment Canadians and visitors feel toward our natural and cultural heritage places. Parks Canada works to foster this sense of attachment through meaningful opportunities for enjoyment and learning provided on-site and through outreach education. Respecting, understanding, and facilitating the relationship between heritage places and Canadians, including Aboriginal peoples, visitors, partners and stakeholders help promote a shared sense of responsibility for heritage places and engage minds and hearts to support their protection and presentation now and for future generations.

Cultural resource – A human work or a place that gives evidence of human activity or has spiritual or cultural meaning, and that has been determined to be of historic value. Cultural resources are distinguished from other resources in a park by virtue of their assigned historic value. This value derives from an association with an aspect or aspects of human history. Parks Canada may apply the term cultural resource to a wide range of resources in its custody including, but not limited to, cultural landscapes and landscape features, archaeological sites, structures, engineering works, artifacts and associated records.

Cultural Resource Management – Applies to all activities that affect cultural resources administered by Parks Canada, whether those activities pertain primarily to the care of cultural resources or to the promotion of public understanding, enjoyment and appropriate use of them.

Cultural Resources Values Statement (CRVS)– A strategic document that identifies cultural resources and their values for heritage places located outside national historic sites and managed by the Parks Canada Agency, and sets out objectives to protect cultural resources and present their values.

Education – A key element of the Parks Canada mandate, the focus of education is to inspire long term support, involvement and stewardship in heritage protection and presentation by moving audiences along the engagement continuum – from awareness, to understanding, to appreciation, to support and involvement. Education activities are designed to reach Canadians at home, at leisure, at school and in their communities and includes outreach, interpretation as well as formal and informal learning

Ecological Integrity – Parks Canada defines ecological integrity as “An ecosystem has integrity when it is deemed characteristic for its natural region, including the composition and abundance of native species and biological communities, rates of change and supporting processes.” In plain language, ecosystems have integrity when they have their native components (plants, animals and other organisms) and processes (such as growth, reproduction, fire, and disease) intact. (Parks Canada 2000).

Indicator – A nationally or bio-regionally consistent summary reporting statement that provides a comprehensive synopsis of each component of the Agency mandate. It is based on a combination of data, measures, and critical success factors that provide a clear message about current conditions and the change since the last measurement.

Management Area Rank – Detailed assessments and managed area ranks:

MA3 – Vulnerable in the Managed Area; due to restricted range, relatively few populations or occurrences, recent and widespread declines, or other factors making it vulnerable to extirpation.

MAU – Unrankable; due to lack of information or due to substantially conflicting information about status or trends.

Measure – Any data, surveys or other measurements that present conditions or trends.

Minimum Viable Population – The smallest possible size at which a biological population can exist without facing extinction from natural disasters or demographic, environmental, or genetic stochasticity.

Public Outreach Education – Reaching Canadians at home, at leisure, at school and in their communities through effective and relevant learning opportunities designed to increase understanding and appreciation of the natural and historical heritage of Parks Canada places, and to encourage individuals and communities to support and become engaged in their protection and presentation.

Recognized Federal Heritage Building – Parks Canada is encouraged to preserve the heritage qualities of the building.




Schedule 1 - A category in the *Species at Risk Act*, officially listing species that are classified as extirpated, endangered, threatened, and of special concern.

Species at Risk Act - A piece of Canadian federal legislation that became law in Canada on December 12, 2002, designed to meet one of Canada's key commitments under the International Convention on Biological Diversity. The goal of the Act is to protect endangered or threatened organisms and their habitats. It also manages species that are not yet threatened but whose existence or habitat is in jeopardy.

Target – An aim or objective set by managers and to be achieved within a specified time frame.

Threshold – The level of an indicator or measure that represents a good (green), fair (yellow) or poor (red) condition. It represents the point of transition between the three levels of condition on which the Agency reports.

Trend – Four categories are used to denote current trends of indicators and measures (improving, stable, deteriorating, not rated)

	IMPROVING. The condition of the desired result has improved
	STABLE. The condition of the desired result is stable
	DECLINING. The condition of the desired result has declined
N/R	NOT RATED. Data is not available or insufficient to assess the trend of the ecosystem component.

Ungulate – An ungulate is any hoofed mammal, wild or domestic. In North America most ungulates have two toes on each hoof (making them members of the order Artiodactyla) and belong either to the family Bovidae (including cattle, bison, goats, muskoxen, and sheep) or the family Cervidae (including moose, elk, caribou, white-tailed deer, and mule deer). The pronghorn is in its own family: Antilocapridae.

Visitor – A person entering the park (including the Visitor Centre) for recreational, educational or cultural purposes.

Visitor Experience – The sum total of a visitor's personal interaction with heritage places and/or people that awakens their senses, affects their emotions, stimulates their mind and leaves them with a sense of attachment to these places.

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