Canadian Heritage Patrimoine canadien
Parks Canada Parcs Canada

Microfiche Report Series

525

# Science and History at Elk Island: Conservation Work in a Canadian National Park: 1906-1994

by Graham A. MacDonald

1994

# Science and History at Elk Island: Conservation Work in a Canadian National Park: 1906-1994

**Graham A. MacDonald**
**Historical Services**
**Parks Canada**

**Alberta Regional Office**
**Canadian Department of Heritage**
**Calgary, Alberta**

**1994**

**The Microfiche Report Series is intended for internal use by Parks Canada. These Microfiches are distributed to various public depositories in Canada for use by interested individuals.**

**Documents are reproduced exactly as received and have not been edited.**

Acknowledgements

In the preparation of this report the author acknowledges the assistance of a number of persons and organizations. Chuck Blyth, Chief Warden, Elk Island National Park; Murray Christman, Heritage Communications Officer, Elk Island National Park; David Kaegi, Park Management Planner, Alberta Regional Office, Parks Canada; Katherine O'Brian, Public Participation Co-ordinator, Alberta Regional Office, Parks Canada; Kurt Seel, former Head, Natural Resource Conservation Division, Alberta Regional Office, Parks Canada; Marty Magne and Gywn Langemann, Archaeological Services, Alberta Regional Office Parks Canada; staff of the Public Archives of Canada, Reading Room; Jeff Murray and Patrick Burden, Public Archives of Canada, Ottawa; staff of the Public Archives of Alberta Reading Room, Edmonton; Professor John Wadland, Department of Canadian Studies, Trent University, Ontario; Professor Donald Worster, University of Kansas, Lawrence, Kansas.

Contents

## Maps



## Figures

Plates

# Introduction

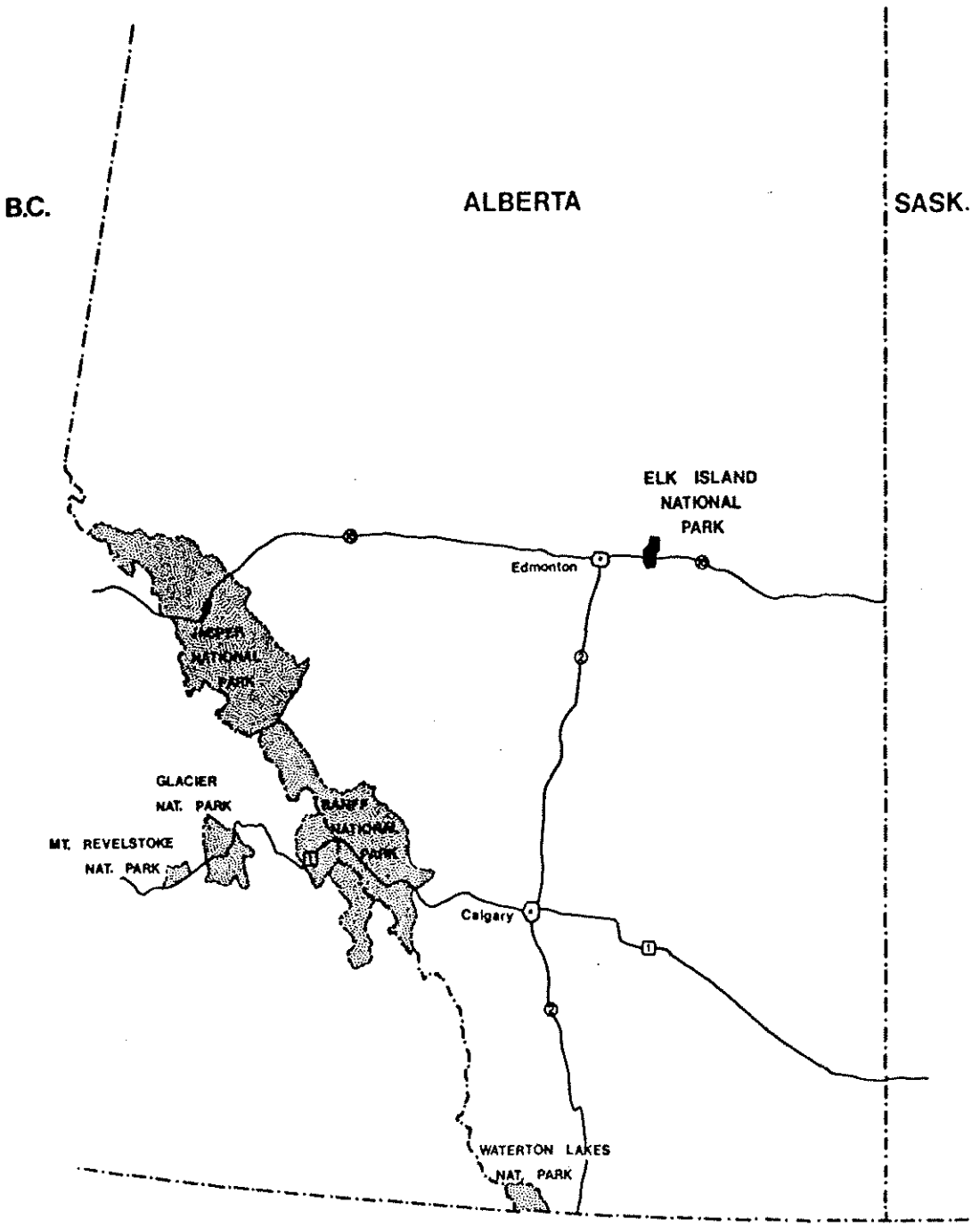
Elk Island National Park, lying in the Beaver Hills east of Edmonton, is relatively small in geographic terms when compared with some its more expansive mountain and prairie counter-parts. (Map 1) It has played an important part in 20th century Canadian conservation of endangered species however, and that role, defined at its very beginnings in 1906, gradually led to a certain ambiguity as far as its ideal character as a park is concerned. That ambiguity is one shared, at least partially, by most National Parks by virtue of the early guiding legislation and the National Parks Act of 1930, which required National Parks to fulfil a number of social and conservation functions. Contradictions sometimes arise as a result, bringing these purposes into conflict. A general example of such a situation grew out of the early decision to allow the existence of townsites in many of the National Parks. This led to a progressive shift of budgetary and managerial resources into the administration of those townsites. More specific to Elk Island was a conflict which did not grow out of a townsite as such, but out of a need to cater to various types of regional visitor demands in parallel with the administrative requirements of an ambitious ungulate conservation program. The latter had to take place on a fairly small and confined land base in which the normal cross-country flow of wildlife was severely proscribed.

In more recent times, these various conflict situations have been considered within a somewhat more theoretical framework in which park managers have been seeking to answer such questions as: what kind of general ecosystem prevailed historically in the Beaver Hills region? and: what are the implications of a correct characterization of that historic ecosystem for wildlife management? Such questions have led to a reconsideration of just what is meant by the landscape definitions 'Aspen Parkland', the 'Northern Boreal Forest' and by the more recent 'Parkland-Boreal Transition Zone' an area which by 1975 had been postulated to lie between the two major forest zones.[1] The Beaver Hills region is now considered by many to lie within this 'Parkland-Boreal Forest transition zone'.[2] (Map 2)

While the term 'Aspen Parkland' has a fairly well-accepted meaning in the literature, its boundaries have been subject to shifts associated with climate change throughout post-glacial history.[3] In general it is represented by a large arc of central prairie lands marked by a mix of grasslands and forest.In this arc the dominant species is Aspen, but coniferous growth is also found in valleys, wetland margins and in areas of natural succession where fire has been a minimal

Map 1

The Context of Elk Island National Park and the Western Mountain Parks



influence. The relationship of the Aspen Parkland Belt to short, mixed and tall grass prairie belts on the prairies is illustrated in Map 3. The northern zones of the Aspen Parkland are often characterized by transitional features in which aspects of the Boreal Forest to the north may be found. Elk Island National Park has often been described as a landscape demonstrating these transitional features, and indeed, some have argued that its character is more in keeping with the boreal lands to the north rather that with the parkland or prairie aspect.[4] Others have taken a contrary view, and argue that the fundamental features of the contemporary Beaver Hills have been induced by post-1890 public and private fire suppression policies, watershed diversion activities, tree-planting, and the decline of a presumed long-standing natural fire regime which worked to maintain large stretches of open grassland amongst groves of aspen.[5] According to this latter interpretation Aspen Parkland forests seldom moved through a natural succession to coniferous forest, such late growth succession being confined largely to valleys and wetland margins.[6] These arguments as to the fundamental historic character of the Beaver Hills are not merely arcane, but have a good deal to suggest in terms of any proposed ideal wildlife and vegetation management regime.[7]

In the 1993 draft *Management Plan* for Elk Island National Park, certain fundamental changes in approach to landscape and wildlife management have been recommended. The present paper seeks to clarify some of the historic realities of Beaver Hills land use and to detail some of the management programmes and conflicts which have been of concern to park managers over the years.

Noticed in this report are some of the significant shifts in policy attempted since 1906 in the continuing effort to adapt Elk Island National Park to the periphery of a steadily developing urban fringe and agricultural region. Owing to the significance which close students of wildlife management and vegetation at Elk Island have attributed to the historic role of fire in the Beaver Hills, some attention has been given to what is known about the human dynamics of the pre-1880 landscape. Aspects of the history of physical developments in the park, recreational, environmental and administrative, have also been noticed, particularly as they relate to current efforts to review certain long-standing developments in the park such as the golf course and the road network. One clear trend in policy emerged in the 1920s. With the benefit of hindsight perhaps, respecting developments in the Mountain National Parks, resistance to the development of a townsite in Elk Island, became a feature of park policy, despite occasional pressures to open up areas of the park to residential and commercial expansion.

# Endnotes

1. See S.C. Zoltai, *Southern Limits of Coniferous Trees on the Canadian Prairies* Information Report NOR-X-128. Northern Forest Research Centre. (Edmonton: Environment Canada. Forestry Service, 1975).

2. Cf. C.B. Blyth and R.J. Hudson, *Elk Island National Park: A Plan for the Management of Vegetation and Ungulates.* (Environment Canada Parks. Elk Island National Park,1987), p. 23 f. and D.S. Reid, *Ecological Land Classification of Elk Island National Park.* (Hardy Associates: Report Prepared for Parks Canada. 1986)

3. For a brief description of the Aspen Parkland in Alberta see Charles D. Bird and Ralph D. Bird, 'The Aspen Parkland' in *Alberta: A Natural History'* W.G. Hardy, ed. ( Edmonton: Hurtig, 1967), p. 135 f.

4. See the arguments made by Elk Island Park Superintendent, H.R. Webster during the 1960s, outlined in Chapter Six of this report.

5. Ralph D. Bird, *Ecology of the Aspen Parkland of Western Canada in Relation to Land Use.* (Ottawa: Canada Department of Agriculture, 1961), p. 37 f. For a recent review of literature see Kenneth F. Higgins et al. *Effects of Fire in the Northern Great Plains* (Brookings: U.S. Fish and Wildlife Service; South Dakota State University; U.S. Department of Agriculture,1986).

6. Cf. Blyth and Hudson (1987, p. 45 f.

7. Essential reviews of these questions are contained in Blyth and Hudson, (1987) and Blyth and Hudson, 'Elk Island National Park, Alberta, Canada - A Historical Perspective of Protected Area Management' in *Science and the Management of Protected Areas* Proceedings of an International Conference. (Wolfville: Acadia University, May, 1991); R.C. Scace, *Elk Island National Park: A Cultural History* (Ottawa: National Historic Parks and Sites Branch, 1978).

# Chapter One

## Land and Life in the Beaver Hills to 1907

### 1. i

### The Environmental Context of the Beaver Hills to 1870

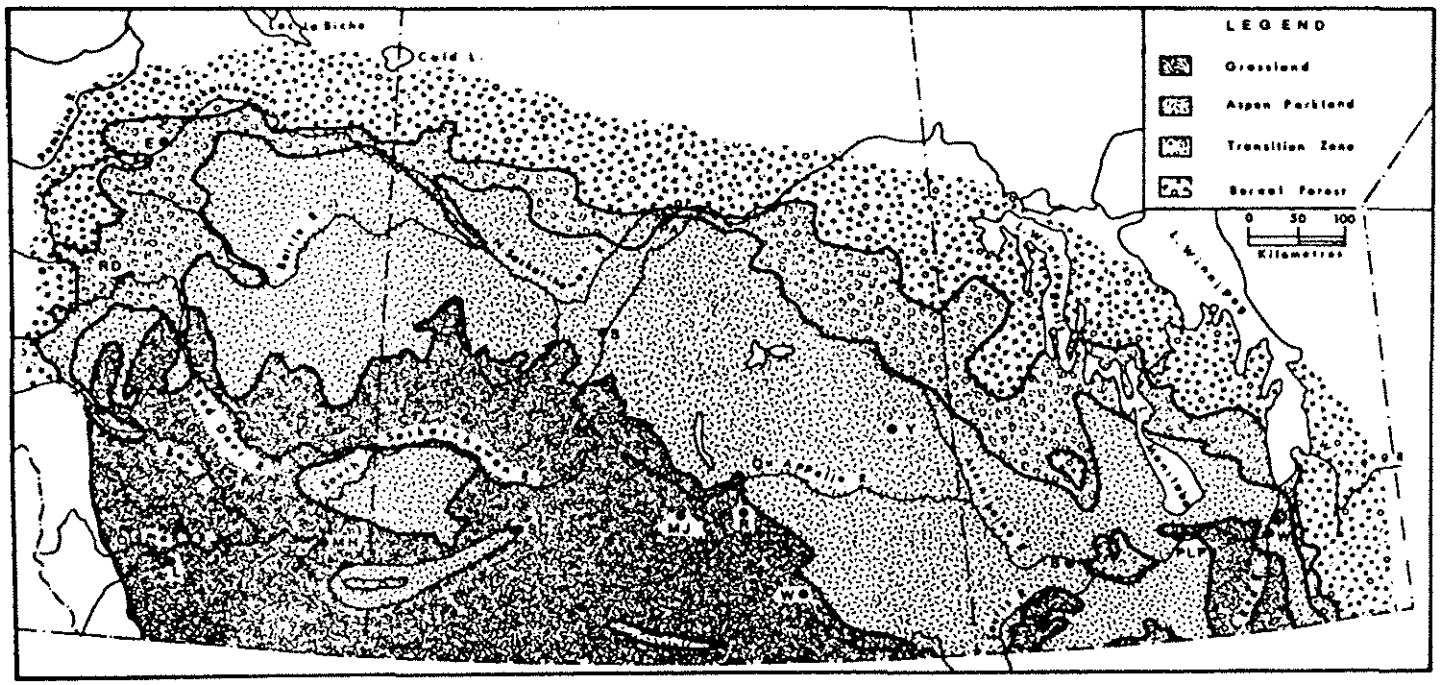
The Elk Island area has been marked by a number of environmental characters since the last great deglaciation, and these reflect general climatic shifts which have affected the northern plains region. A boreal forest developed in the wake of the departing ice sheets of the last glaciation, although probably not one exactly parallel to contemporary boreal forests.[1] A period of relative warmth and dryness, often called the 'altithermal' dominated the plains climate in the period roughly 7,500 to 5000 years before the present time. It is felt that during this dry period prairie grasslands extended well to the north of their current position. Following this period a cooler time returned producing what has come to be called the 'Aspen Parkland' in the northern reaches of the prairies, a transitional vegetation landscape marked by species common to both the boreal and prairie realms.[2] Over the last three thousand years, the northern and southern boundaries of the various vegetation belts have undergone periodic shifts in response to fluctuations in long-term climate patterns.[3]

Today, the Beaver Hills region east of Edmonton share a certain character with the Cypress Hills of the southern border country of Alberta and Saskatchewan. Both define modest elevations which stand out rather distinctly from the flat terrain surrounding them. But while the Cypress Hills represent a definite 'oasis' within the dry short-grass prairie country, the Beaver Hills rise less perceptibly out of a more hospitable and moister landscape within the Aspen Parkland. This wide belt of grasslands and trees runs in a broad belt from south central Manitoba towards Edmonton.(Map 3) The trees which are most frequent are poplar and oak but a variety of species often associated with the boreal regimes of the north are also found. It is one of the most distinctive of the major Canadian landscapes, and for many centuries the Aspen Parkland belt was one of the favoured wintering areas for the great herds of bison. The groves of trees provided shelter from the bitter prairies winds, while much needed grass could also be found for winter forage. The Aspen Parkland is a genuinely 'transitional' type of landscape.[4]

Map 3

The Aspen Parkland Belt in relation to Other Vegetaton Zones on the Prairies

After Zoltai (1975)



1.ii

The Aboriginal Context.

What is known about the human antiquity of this unique area of upland known as the Beaver Hills? Systematic archaeological reconnaissance work at Elk Island and vicinity is quite recent. Only in 1977 was the first major survey undertaken.[5] Ian Wilson and Thomas Head, in their published report, remarked upon the longstanding nature of the Beaver Hills as a resource base. They noted that, as a landscape, it was one in which the archaeological sites were particularly sensitive owing to the elevated nature of the land and lack of soil depth.[6] They concluded that the area had been utilized for several millennia and that the wide number and variety of sites suggested it had been frequented for a wide variety of purposes. Fortunately, 'most of the prehistoric sites in the Park are as yet undisturbed, and as such have high potential for future research.'[7] As with much of Canada, the imprint of the great glaciations lies heavily upon the Beaver Hills. The retreat of the last glacial front was rapid, in terms of geological time, and as the sheet retreated to the north-east it left a series of glacial lakes in its wake. Vestiges of some of these ancient lakes accompanied by complex formations of glacial debris or 'till' are features of the Beaver Hills and Elk Island National Park today.[8] Radiocarbon dates indicate that initial post-glacial occupations of the Beaver Hills might have occurred between eleven and twelve thousand years ago.[9]

The fragments of archaeological remains which have to date been turned up at Elk Island tend to reflect a comprehensive range of Native and European history. About earlier sites 'it is only possible to say that both the Middle and Late prehistoric periods are represented in artifacts recovered' and that 'not all complexes or phases from these periods have been identified to date.'[10] The general abundance of sites found however, represent a fairly broad time range and suggest that 'the area was not a peripheral area or a prehistoric frontier zone, but rather a centre of activities.'[11] Sites represent a number of functional types indicating seasonal rounds of activity, but seasonal rounds of a differing character. For the more recent period of Native history for example, Timothy Losey suggests that 'sites of a forest or Athapascan origin...favour a late fall season of occupation' while those of 'plains origin favour a late winter season.'[12] It seems that the Beaver Hills were used at different times of the year by different peoples for different purposes.[13] Just who occupied the hill in the years between 1600 and 1800, and how, are questions for conjecture, although some facts and generalizations have been regularly stated.

With the general progress of the fur trade west from the Great Lakes and south from Hudson's Bay after 1700, a number of large-scale movements and mixings of Native population took place.[14] The most dramatic expressions of these expansions involved movements of Sioux and Ojibwa onto the plains west of the Great Lakes.[15] A conventional view in recent literature has been that the eighteenth century Cree commenced a movement southward from their home territories around James and Hudson Bay.[16] (Map 4) With each expansion of these peoples, supposedly allied to the European fur traders, other resident peoples further inland had to make territorial adjustments or move. Direct observations by European traders on the far interior regions begin only in 1754 with the trip inland from Hudson Bay made by Anthony Henday (or Hendrey).[17] It would be another forty years before ethnographic information started to appear with any regularity in the historical record.[18] Recently, the validity of this assumption of the steady south-westward drift of the Cree, in alliance with the spreading fur trade, has been brought into question.[19] The dynamics of occupation aside, it seems certain that in the years between 1750 and 1820 a number of different groups made regular use of the Hills.

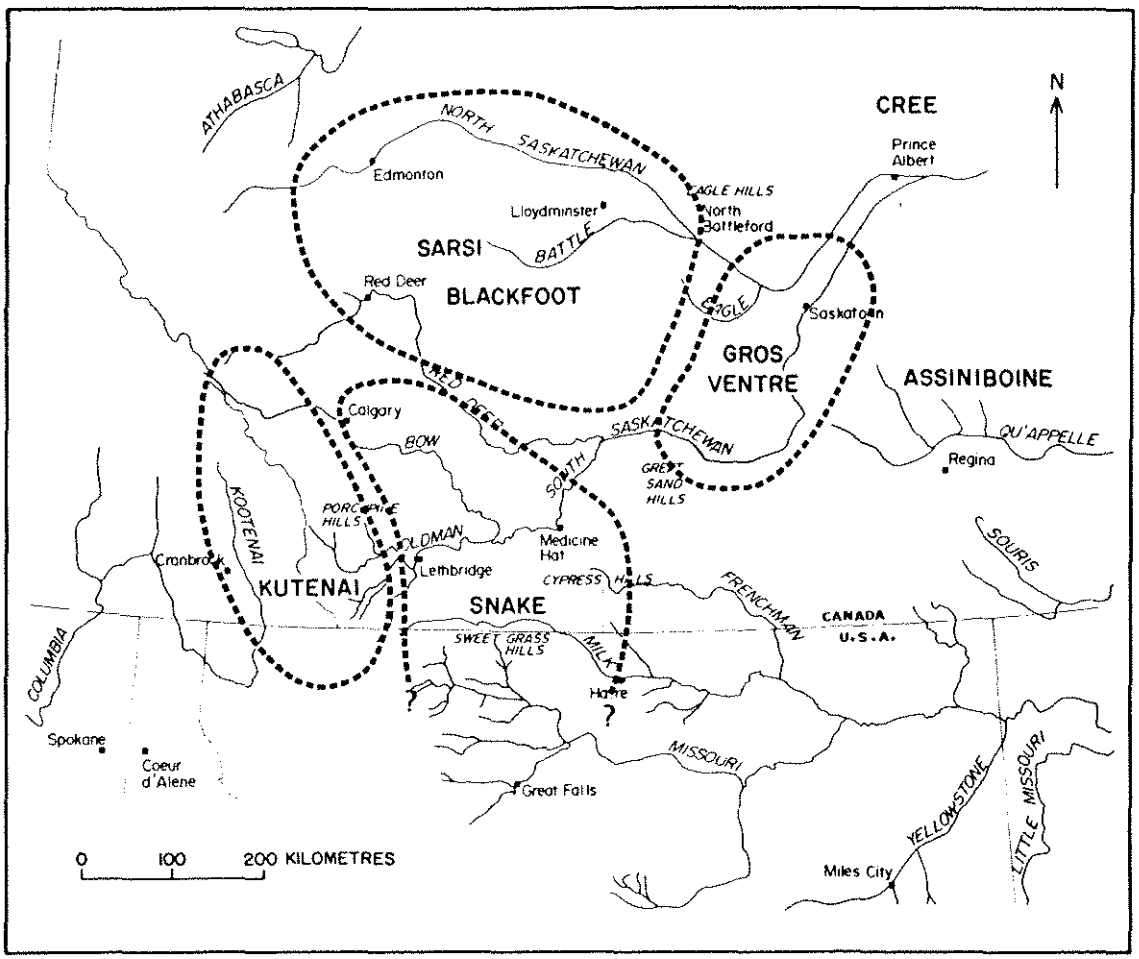
Evidence suggests that the Algonkian-speaking Blackfoot had long been resident in the area, perhaps for a thousand years, and that the Athapascan-speaking Sarcee, (presumably allied to the Beaver Indians to the north), and the Siouan-speaking Assiniboine were also present. With pressure from the Cree from the north-east, the Sarcee may have become cut off from their kin, the Beaver Indians, and it appears that, despite the differences in linguistic traditions, the Sarcee and Blackfoot may have first became allied in the Beaver Hills.[20] Between 1794 and 1811, fur traders Duncan McGillivray and Alexander Henry the Younger, both singled out the Sarcee for special comment, as regular traders at Fort George on the North Saskatchewan River.[21] According to Henry:[22]

> The Sarcees who all traded at this post in the winter of 1810-11 were excellent beaver hunters while on the N. side of the Saskatchewan...A quarrel which they had last summer with the Assiniboines has caused them to remain near the mountains for the present; the environs of the Beaver Hills are generally their station.

The Cree, with access to powerful European technology, may have gradually forced an evacuation of the Hills by the Sarcee and Blackfoot. The Cree then went on to establish their own identity as the 'Beaver Hills People', the 'Upstream People' or the 'Saskatchewan Cree.'[23] Mandelbaum identified these people as one of the largest advance guards of the developing 'Plains Cree'

**Map 4** Proposed Native Occupancy of the Beaver Hills Region: c. 1700

After Brink (1986)

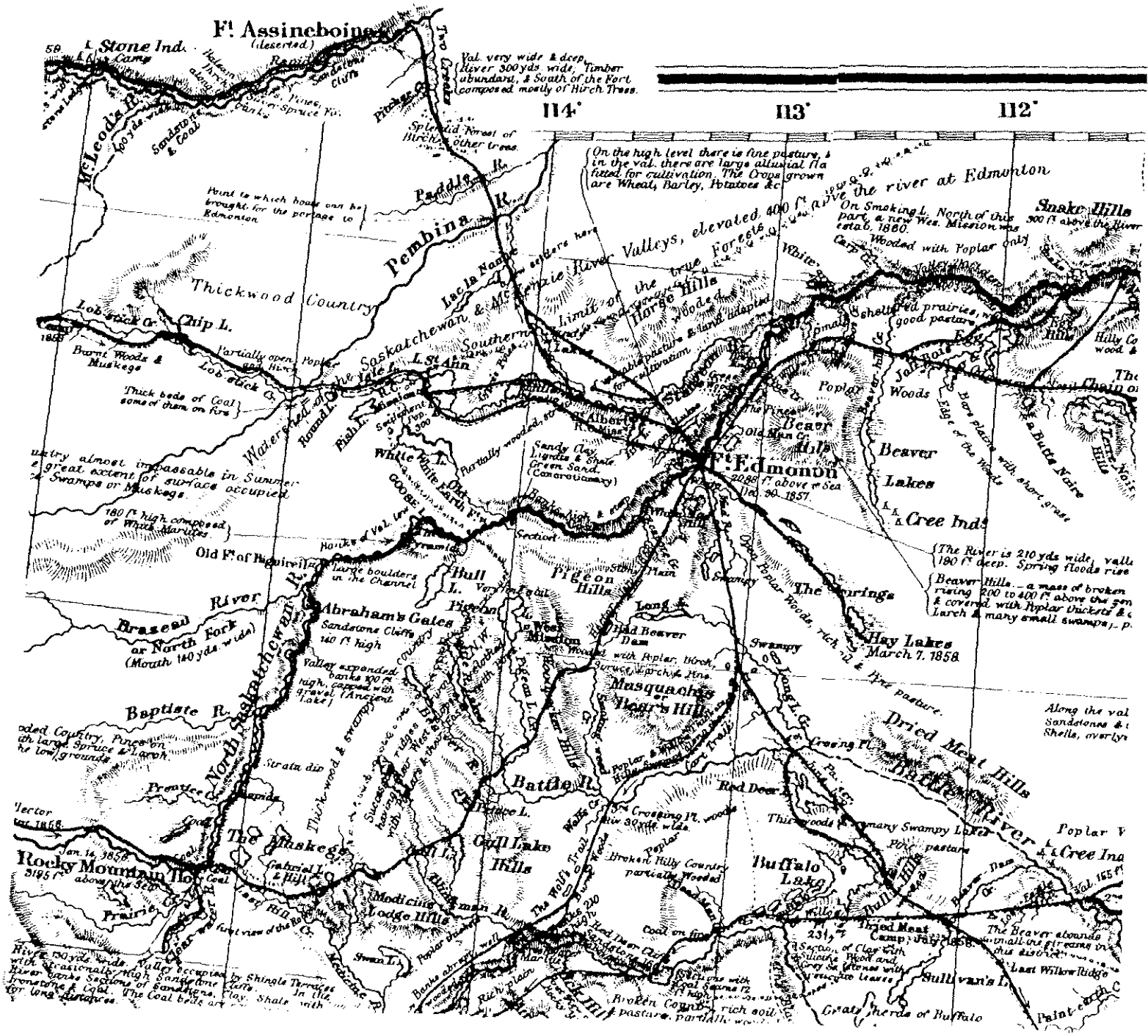


culture. These were the 'amiskwatciwiyiniwak' who bore the brunt of the Blackfoot raids but were also rich in horses.[24] An old Cree name for the hills is *Amisk Wuchee*.[25]

Fur traders were active along the North Saskatchewan River in the years after 1795. The Indian name for the locality - the 'Beaver Hills' - suggests a traditional abundance of this animal in previous centuries. The value of the trade in the area is revealed by the policies of the Hudson's Bay Company and its rival, the Northwest Company. They tended to build fur posts in a matching pattern, each seeking thereby to give close rivalry to the other. Northwest of Elk Island Park, the land around present-day Fort Saskatchewan played a changing role in the trade. In James MacGregor's words 'Fort Augustus and Edmonton House, although relocated several times to accommodate their customers, became the most important.' After 1802, these two forts 'built originally in 1795 near modern Fort Saskatchewan, moved to a site within the modern city of Edmonton' where they remained until 1810.[26] By 1815 the beaver was in short regional supply. The parallel depletion of large game in the northern forests led the fur companies to become more dependent on the prairie and parkland as a source of food, and so it was more as a place of supply and provisioning that the Beaver Hills took on importance in the nineteenth century fur-trade.[27] (Map 5) Thus, in his book *Buffalo Days* published in 1858, Peter Erasmus noted that there were '...no beaver, although their old dams criss-crossed areas in every direction where there was any water flow. The beaver had been over-trapped.' By the 1880s the first agricultural settlers did not remark on the presence of beaver in any number.[28]

Map 5

# Palliser's Map. 1858



Sec. 1.iii

The Battle River Watershed and the Development of the Yellowhead Transportation Corridor: 1870-1907.

In 1869 the long feudal-like tenure of the Hudson's Bay Company came to at least a formal end. While the company carried on in commercial terms, it was no longer the only landlord in the vicinity. The new Dominion of Canada established a government for the North West Territories at Winnipeg, the fledgling capital of the new Province of Manitoba.(Map 6). Over the next six years the main priority of the federal government, with respect to the west, was to implement and complete a treaty policy with Aboriginal peoples. By 1876, this process was largely complete on the prairies.(Map 7)

The road to the Beaver Hills led through the valley of the Battle River. The territorial government of the North West Territories had been relocated from Winnipeg to Battleford in 1876, and with it had come representatives of the recently created North West Mounted Police.[29] Even before the new territorial seat was established, members of the 'scarlet force' had settled at present day Fort Saskatchewan, and established what was then known as 'Sturgeon Creek Post.' Later it took on the name of Fort Saskatchewan and was the active police headquarters for the Edmonton District until 1911.[30]

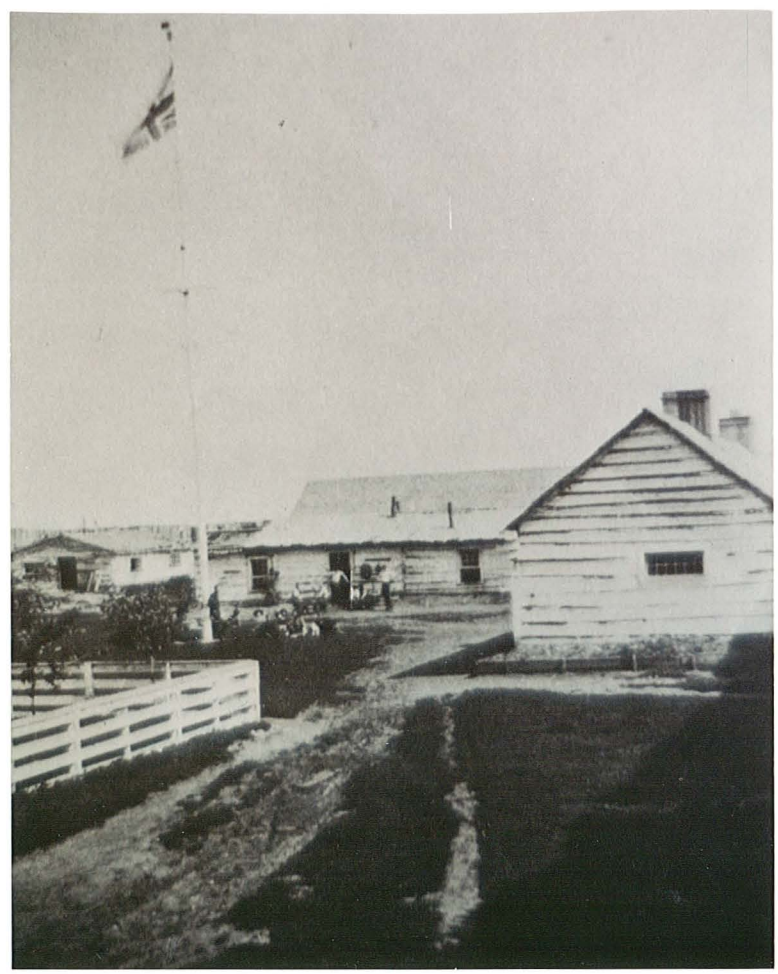
While numbers of intending settlers were not yet significant in 1876, the general crisis facing the bison herds was nevertheless on the mind of the North West Territorial Government. Attempts to legislate in favour of the animals through the *Buffalo Ordinance* and the *Prairie and Forest Fire Ordinance* of May, 1877 were ineffective. The *Buffalo Ordinance* actually ran counter to the Native hunting rights recently granted by treaty.[31] From the records of the police force come some of the earliest observations on the nature of land and life in this region on the eve of agricultural settlement. Robert Scace has commented on the 'language of anguish' which characterizes many of these reports with respect to the general effects of settlers on the local landscape.[32] He concluded that: 'With the on-set of white settlement from about 1890 and attendant clearing of forest cover and reduction of game species, even greater changes to the ecosystem occurred. Much of the initial destruction was associated with fires caused accidentally or deliberately set to expose the soil mantel for cultivation and pasture land.'[33]

Bison Pounding as rendered by Sir George Back c. 1820

Cree Indians
Edmonton Area c. 1890.
Prov. Archives of Alberta.

Fort Edmonton. 1870s.
Provincial Archives of Alberta

Sturgeon Creek Post (NWMP) c. 1884.
Prov. Archives of Alberta



The 1890s were the occasion for a number of fires in the Beaver Hills, and the one of 1895 was particularly destructive. Edo Nyland has reviewed the extent of the destruction and the manner in which public opinion altered between 1893 and 1899 as a result.[34]

> During the third week of May 1892 the first large forest fire hit the Beaver Hills. Clearing of land by fire, combined with dry weather conditions was responsible for the destruction. A start had thus been made with the complete destruction of the forests.

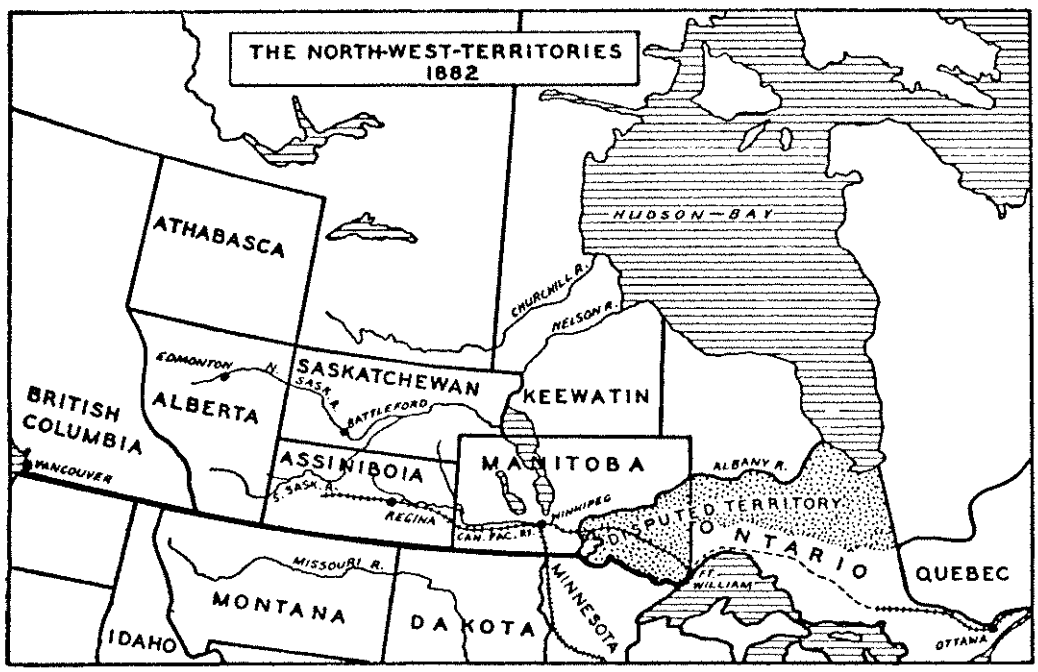
Despite this initial onslaught on the natural regimes, the influential editor of the Edmonton Bulletin, Frank Oliver, was not yet convinced that anything was amiss, not such as could warrant the initial reservation by the Department of the Interior in 1892 of what was to become later the Cooking Lake Forest Reserve. On February 9, 1893, an editorial affirmed that:[35]

> In this part of the country, where wood is everywhere abundant and particularly so throughout the greater part of the great area - about six townships square - known as the Beaver Hills, the same necessity for reserving the timber does not exist, and the policy of doing so becomes a burden and a drawback, instead of a benefit.

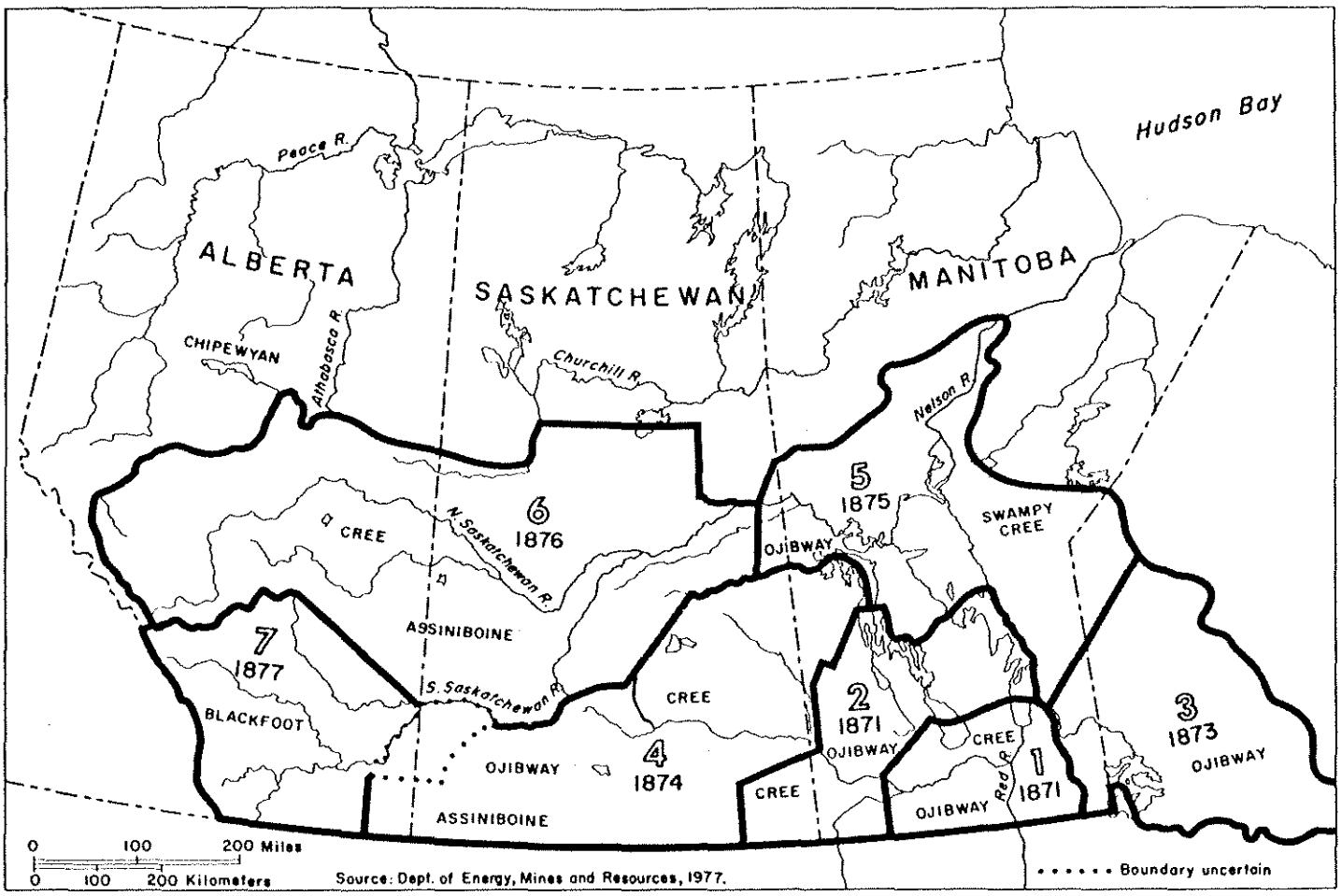
The 1892 fires had just been the beginning however. In 1894 the area around Beaver Lake burned and in 1895 much of the entire Beaver Hills region was set ablaze. According to Nyland 'the fires raged through April and May, June and July' and they 'were blown out of control by high winds helped along by the setting of incendiary fires.'[36] Surveyor Earnest Hubbell recorded in his notes of July 27, 1895, that 'I found the ground in many places burnt to a depth of several inches, and it was with great difficulty a clear place, sufficiently large to pitch camp upon, could be found.'[37] Despite rains in August the landscape was set afire again in the autumn, scorching farms as far away as Fort Saskatchewan and building up such a large front that it jumped the North Saskatchewan River and moved northward.[38]

**Map 6** Political Map of the Prairies, 1882

After L.H. Thomas, (1978)

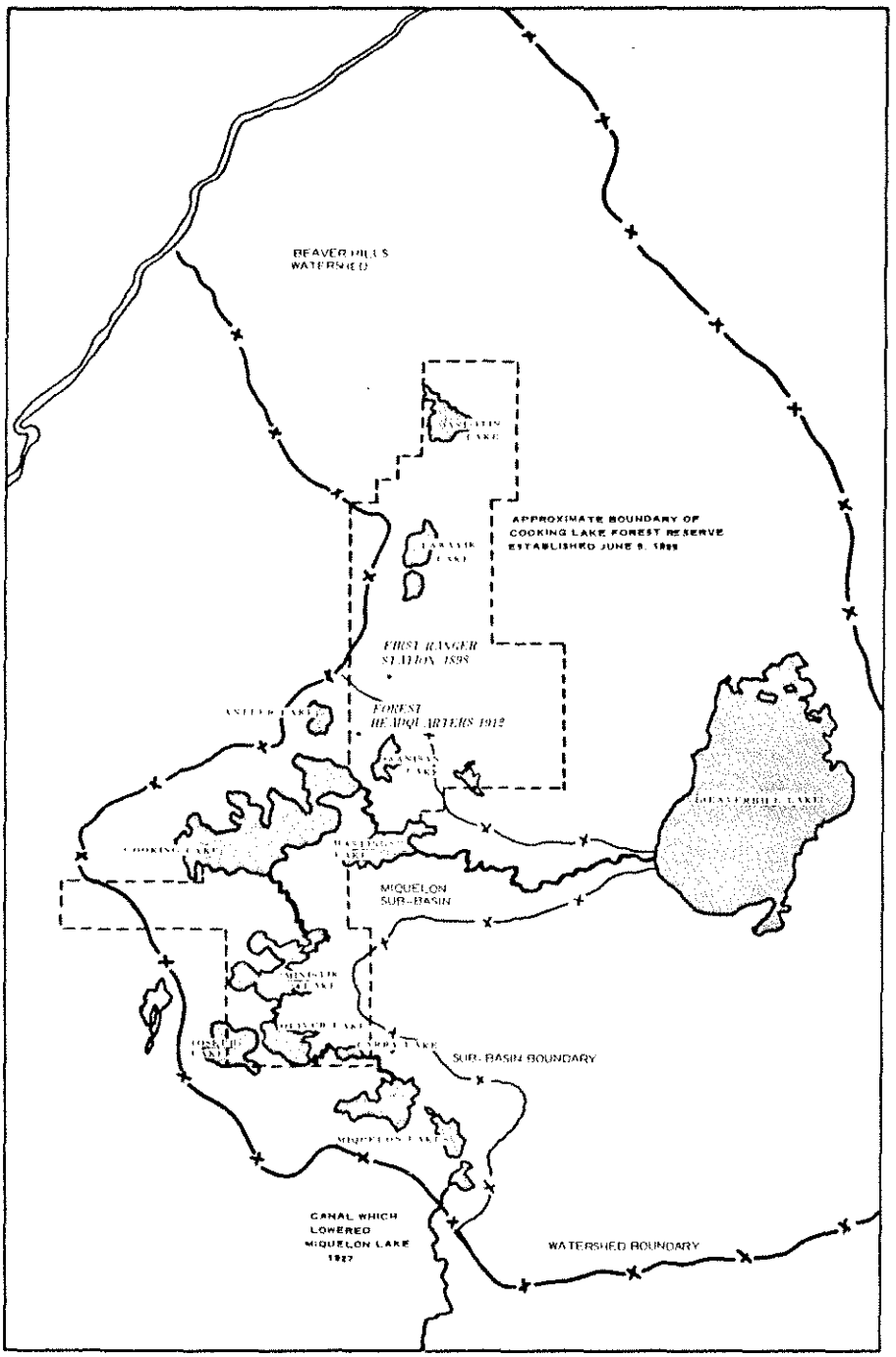


Map 7 Map of Treaty Areas on the Prairies, 1877



**Map 8** The Cooking Lake Forest Reserve. 1899

After Edo Nyland (1969)



Fire in the Aspen Parkland.
Courtesy: Henry Lewis.

Fire on the Prairie.
After Rudolph F. Kurz

Native people are portrayed here in the midst of a fire and diverse wildlife, including elk.

By this time Oliver at the Edmonton Bulletin had long since heard enough. In May of 1895, the editorial argued that:[39]

> The worst of the matter is that many settlers look upon this wholesale destruction of timber as something commendable and to the advantage of the country in making more land available for settlement. Even in those parts of the country that are open, only a very small percentage of the land is actually cultivated, so that there is no necessity for destroying the timber wholesale.

These fires were the most direct cause of the formal establishment of the Cooking Lake Forest Reserve in 1899.[40] This reserve contained about 170 square miles of hilly and broken land in the Beaver Hills, and the remains of the Keewatin glacial moraine, and included the territory now defined as Elk Island National Park. (Map 8) In his report for 1907, the Superintendent of Forestry observed:[41]

> This reserve has probably suffered more from fire than any of the other reserves and there is at present hardly a square mile of virgin timber left. The original stand was spruce, larch, aspen, balm, birch with some jack pine and balsam. Now the conifers have almost all disappeared and only an odd old spruce or larch which has been protected by a muskeg or a hill remains to show that there was once a coniferous forest on these hills. Reproduction of aspen and balsam is coming up thickly over almost all of the reserve, but some of it has been burned over three or four times and is now beginning to lose its vigour. In these places it will be necessary to replant it if the forest is to be maintained.

The first two fire rangers appointed were William Stephens, a former scout at Fort Edmonton, and a Sioux Indian named Jack Sanderson.[42]

The turn of the century landscape condition of the Beaver Hills was not promising in terms of what was usually required for advance promotion of a national park establishment. Nyland noted that following the 1895 fires 'the result was utter desolation.'[43]

> The area which later became Elk Island National Park was burned so severely that only a few scattered trees in places sheltered by water, muskeg, or on north slopes of hills escaped. The large game population was destroyed. In fact the entire area between Edmonton and Beaver Lake, Fort Saskatchewan and Cooking Lake was dead.

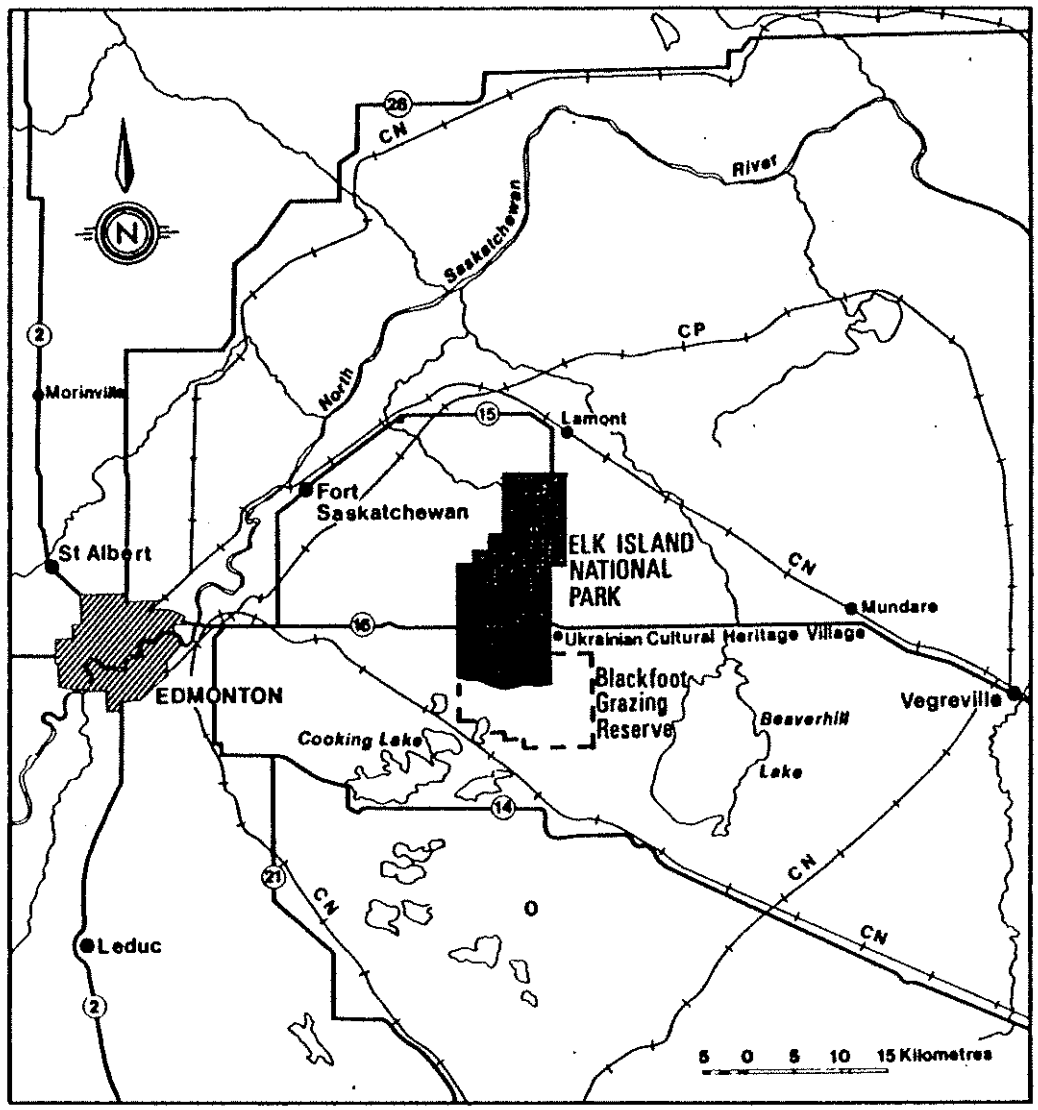
Systematic settlement and alteration of the Beaver Hills landscape had come hard and fast relative to the modest pace of environmental change which had prevailed from time immemorial. The destruction of the timber was seen by some as a great waste and in retrospect, these fires appeared to mark 'the end of a natural fire regime which had maintained the vegetation for the previous 2800 years.'[44]

Such observations proved to be more than just contemporary reactions to a localized series of disasters. The fires and tree-clearing contributed strongly to a general drawing down of water levels in the area. The landscape, in a space of just thirty years, became one which earlier Aboriginal peoples would not have recognized, nor the fur traders, or even some of the earliest settlers. Presumably a fishery of some variety was a feature of Beaver Hills lakes and streams before 1870, but the draw-down of water-tables eliminated fish life so that in the 1990s Elk Island National Park still cannot claim any fish populations of note.[45]

In the first decade of the twentieth century, however, optimism was in the air. This was to be Canada's century! By 1907 Edmonton was on the eve of industrial expansion. The capital of the young province was about to see its prospects increase with the completion through the city of the Grand Trunk Pacific Railway, the second Canadian trans-continental railway link.The route ran directly to the north of Elk Island National Park, and its presence would have consequences for the new park and the nearby town of Lamont. (Map 9)

**Map 9** Regional Setting and Rail Routes in the Elk Island area, 1990

Parks Canada



## Endnotes

1. Cf. T. Terasmae, 'Late Quaternary Geochronology and Deglaciation' in *Aboriginal Man and Environments on the Plateau of North West America* . A.H. Stryd and R.A. Smith, eds.(Calgary: University of Calgary: The Students' Press, 1972.)

2. Even greater precision has been given to the 'transitional' character of the Aspen Parkland belt by Zoltai in 1975. Cf. S.C. Zoltai, *Southern Limit of Coniferous Trees on the Canadian Prairie* Information Report NOR-X-128. Northern Forests Research Centre. (Edmonton: Environment Canada, Forestry Service, 1975)

3. I.R. Wilson and T.H. Head, *Archaeological Inventory Elk Island National Park.* Manus. Report Series. No. 318. (Ottawa. Canadian Parks Service, 1978), p. 13

4. The definitive report on the Aspen Parkland remains Ralph A. Bird's *Ecology of the Aspen Parkland of Western Canada in Relation to Land use.* (Ottawa: Department of Agriculture, Publ. no. 1066. 1961); See also J.S. Rowe, *Forest Regions of Canada* Canadian Forestry Service Pub. No. 1300 (Ottawa: Dept. of Fisheries and the Environment, 1972), pp. 34-5; and Zoltai (1975).

5. Wilson and Head, (1978). For a summary of site work done in the Edmonton area before 1977 see Wilson and Head (1978), p.14

6. Ibid., p. xi

7. Ibid.

8. D.E. Jennings, *The Late Quaternary Geomorphology of Elk Island National Park.* M.Sc. Dept. of Geography ( Edmonton: University of Alberta, 1984).

9. Wilson and Head (1978), p. 11

10. Ibid. p. 141

11. Ibid., p. 147

12. Ibid. p. 148

13. For a summary of work done at Elk Island since 1978, and the broader context of that work, see B.O.K. Reeves, *Elk Island National Park Management Plan: Cultural Resources.* Report Prepared for the Canadian Parks Service. (Calgary: Environment Canada, Parks, 1991).

14. Dale Russell has recently brought into question many of the assumptions concerning such movements, their timing and motives. Cf. Dale Russell, *Eighteenth Century Western Cree and*

*Their Neighbours*. Archaeological Survey of Canada. Mercury Series, No. 143. (Ottawa: Canadian Museum of Civilization, 1991).

15. Cf. Harold Hickerson, *The Chippewa and Their Neighbours:A Study in Ethnohistory*, Rev. Ed. (Prospect Heights: Waveland Press, 1987).

16. Arthur J. Ray, *Indians and the Fur Trade: Their Role as Trappers, Hunters and Middlemen in the lands Southwest of Hudson Bay, 1660-1870.* (Toronto: University of Toronto Press, 1974).

17. See J.L. Burpee, ed. 'York Factory to the Blackfoot Country: The Journal Of Anthony Hendrey, 1754-55.' *Proceedings and Transactions of the Royal Society of Canada*.. Third Series. I (1907), Section II. pp.. 307-64; and J.G. MacGregor, *The Battle River Valley* (Saskatoon: Prairie Producers, 1976), Ch. 2

18. See C.B. Blyth and R.J. Hudson, *A Plan for the Management of Vegetation and Ungulates, Elk Island National Park.* (Canadian Parks Service. Elk Island National Park. 1987), pp. 71-2. Details on historic sitings of Bison in the Elk Island area have been recorded on file in the Warden Office, Elk Island National Park.

19. Dale R. Russell, (1991) and Russell, *The Eighteenth Century Western Cree and Their Neighbours: Identity and Territory.* M.A. Thesis.(Saskatoon: University of Saskatchewan. 1990); and see the discussion in Reeves (1991), p. 15 f.

20. Reeves (1991), pp. 13-16

21. *The Journal of Duncan McGillivray,* Ed. A.S. Morton. (Toronto: 1929); Elliot Coues, *New Light on the Early History of the Greater Northwest. The Manuscript Journals of Alexander Henry the Younger*.. Vol. II.(New York: 1897), p. 727

22. Coues (1897), II, p. 727

23. Blyth and Hudson (1987),p. 171; and Cf. David G. Mandelbaum, *The Plains Cree: An Ethnographic, Historical and Comparative Study.* Canadian Plains Studies, 9 (Regina: Canadian Plains Research Centre, 1979), p. 11

24. Mandelbaum (1979), p. 11

25. Edo Nyland, 'This Dying Watershed' *Alberta Lands. Forests, Parks, Wildlife.* 12:(3) (1969), p.20

26. James G. MacGregor, *A History of Alberta* (Toronto: McClelland and Stewart, 1972), p. 24

27. Blyth and Hudson, (1987), pp. 171-3

28. Ibid. p. 142

29. For details on early government in the North West Territories, and the Battleford period, see Lewis Herbert Thomas, *The Struggle for Responsible Government in the North-West Territories, 1870-1897.* 2nd. ed.(Toronto: University of Toronto Press, 1978), Ch. 4

30. Robert Scace, *Elk Island National Park: A Cultural History* (Ottawa: Parks Canada. 1976), p. 67; Ream,

31. Blyth and Hudson, (1987), p. 173

32. Scace, (1976), pp. 88-9

33. Ibid., p. 89

34. Nyland, (1969).

35. *Edmonton Bulletin,* Feb. 9, 1893. Cited in Nyland (1969), p. 27

36. Nyland(1969), p. 26

37. Ibid.

38. Ibid.

39. *Edmonton Bulletin,* May 9, 1895. Cited in Nyland (1969), p. 26

40. Monrad E. Kjorlien, *A Review of Historical Information of Fire History and Vegetation Description of Elk Island and the Beaver Hills.* Unpublished Paper. (Elk Island National Park. April, 1977), p. 10

41. Ibid., p. 11

42. Nyland (1969), p. 28

43. Nyland (1969), p. 26

44. Blyth and Hudson (1987), p. 34

45. Personal Communication. Percy Wiebe. Regional Fisheries Officer. Canadian Parks Service. Calgary.1993.

# Chapter Two

## Threatened Wildlife and the Development of Elk Island National Park: 1906-1930

### 2.1

### Threatened Wildlife and the Genesis of a Park

The formal establishment of the Cooking Lake Forest Reserve in the Beaver Hills in 1899 became an important factor in the 1906 decision to establish a wildlife sanctuary for a locally threatened population of elk which had miraculously survived the ravages of fire and hunters. Scace has pointed out that the creation of this reserve was facilitated by the contemporary establishment of federal conservation lands, supported by institutions with sufficient powers, and by a growth in public opinion, favourable to such efforts.[1]

The immediate circumstances which led to the establishment of a wildlife reserve in the form of a 'park' can be traced to the year 1903. W.H. Cooper, the Edmonton-based territorial Game Warden for the Northwest Territories, drew to the attention of local M.P. Frank Oliver, the danger posed to a herd of some 75 elk resident just north of the boundary of the Cooking Lake Forest Reserve. In the winter of 1903-4 at least twenty of the animals were shot by hunters, and a larger hunt was anticipated, so that 'the complete destruction of the elk appeared probable.'[2] Following receipt of a petition urging protection for the animals, signed by more than seventy residents of the Edmonton area, the Minister of the Interior, Clifford Sifton, moved to withdraw from settlement an area of about 16 square miles from the Cooking Lake Forest Reserve. It was proposed to have this area fenced in for an enclosure for the elk. The lands set aside were centred on Island Lake, or Astotin Lake as it has come to be called.[3] In 1906, in cooperation with local residents from Fort Saskatchewan and Edmonton, fencing of the land commenced, and by 1908, the Commissioner of Parks, Howard Douglas, was able to report that at least 24 elk and 35 mule deer had been enclosed.[4] (Map 10)

While these events were unfolding, the Minister of Interior was preparing a new piece of legislation that would allow for the establishment of forest reserves with improved legal status. This was enacted as the *Dominion Forest Reserves Act* in 1906. In preparing this legislation, Sifton made provision for the protection of wildlife in such reserves, an activity which had not been provided

Native Elk Hunt by Alfred Jacob Miller c. 1837
Public Archives of Canada

Bison on the Missouri by Willliam. Jacob Hays c. 1860.
Thomas Gilcrease Institute of Amercian History

Lakota Sioux Girl in Elk Tooth Dress. c. 1895.
Smithsonian Institution.

Elk Hunt. Yellowstone National Park. 1882.
U.S. National Park Service

for under the old Department of Interior regulations. With the re-definition of the Cooking Lake Forest Reserve in 1906, the fenced portion became known as the 'Elk Park.' Five years later the provisions of the 1906 act were incorporated into the new *Dominion Forest Reserves and Parks Act* of 1911, which authorized the establishment of Dominion or National Parks from lands within forest reserves. Under these new arrangements, Elk Island Park was designated by order in Council on March 13, 1913.[5]

As of 1907 then, a new National Park had come into being, one much smaller than the large units established in the Rocky Mountains to the west. In addition, the Elk Island Park had been constituted for a very distinct purpose, that of wildlife conservation. It was free of the motives for rail-inspired tourism which informed the establishments at Banff, Jasper, Yoho and Glacier. The achievement at Elk Island in 1907 then, was a modest one, and seemingly appropriate with respect to the number of animals conserved. The situation was to change rapidly however, owing to the sudden interest among federal Canadian wildlife conservation authorities in an opportunity to obtain the last great herd of plains bison, then resident in Montana. The subsequent story has been told on many occasions.[6]

The forces mustered by the owner of the herd, Mexican-born Michel Pablo of Ronan, Montana, commenced their round up in May of 1907. The bison were sufficiently wild that it took some four years to complete the project. Norman Luxton of Banff was on hand to witness the roundup and the shipments by train north to Lamont, Alberta. Luxton has left a memorable account of the difficulties associated with the round-up at the Montana end:[7]

> Day after day these untiring men and horses surrounded the wild herds of buffalo in the Flathead Reservation, and three times in only six weeks of daily drives were they successful in getting any of the buffalo to the corrals. The buffalo, when they found themselves being urged from their native pastures, would turn on the riders and in the wildest fury, charge for the line, scattering to all parts of this cactus-grown country, the dare-devil cowboys.

It was not certain just how many head there were in the Flathead Reservation herd. Pablo had first estimated around 400 and had contracted on that basis. By the middle of the summer in 1907, he had sent 199 animals north, but by then he also realized that he might have had as many as 600 head in his

herd. Adjustments were made to the contact which allowed for a per-head shipping allowance. A second shipment of 211 bison was sent from Ravali Montana that year, arriving at Lamont on October 11. Difficulties with the round-up plagued Pablo in 1908, leading to a delay in further shipments. At the same time, progress had been made on the establishment of a new 'Buffalo Park' at Wainwright, Alberta, the intended home for the remaining Montana bison as well as those temporarily resident at Elk Island.[8] By the spring of 1909 the Buffalo Park was in a sufficient state to take shipment of bison from Elk Island. In June, 325 head were sent from Lamont to the corral at Wainwright Station. While it had been the intention of park authorities to ship all of the bison from Elk Island, some proved difficult to capture, and the final round-up estimates indicated that 48 remained in Elk Island, considered 'too wild to catch.' One park employee, M.H. Butler, felt that some of the Park staff were anxious to retain some of the bison for Elk Island and did not work too hard at getting the "outlaws"[9] It was this group that provided the nucleus for a herd at Elk Island which eventually numbered 2000.

The years between 1906 and World War were intense with respect to the scope of national and professional debates about the most desirable forms of land use for purposes of conservation. Following the granting of provincial status to Saskatchewan and Alberta in 1905, the federal government retained strong controls on natural resource use. One area where the provinces were given a share of the power however, was in the area of game management, for 'the Dominion Government left to the provinces the protection of the game, fur-bearing animals, and other wildlife within their respective territories' and 'retained wildlife administration powers only in the North West Territories, Yukon and in the National Parks'.[10] In effect, a patchwork of different provincial jurisdictions continued to develop across the country.

A strongly-entrenched public ideal in the late nineteenth century was that of 'multiple-use' - the notion that a variety of natural resource values and uses could be simultaneously maintained on a given unit of land. This movement unfolded with a view towards more efficient consumption and utilization of resources. The philosophy could be applied to large river basin units, range lands, or to smaller units such as parks and forest reserves. As an idea it had been formulated in the United States during the administrations of Theodore Roosevelt, particulary by his chief forester, Gifford Pinchot.[11] In Canada, many of those active in Clifford Sifton's *Commission of Conservation* had also taken up this banner, but not all of them. A strong dissenting voice was that of the forester from the University of Toronto, W.N. Millar.[12] Millar liked coherence in land use and he felt that overlaps posited by theories of multiple-use,

Bison bones being gathered and transported for commercial trade on the prairies
Canadian Pacific Archives

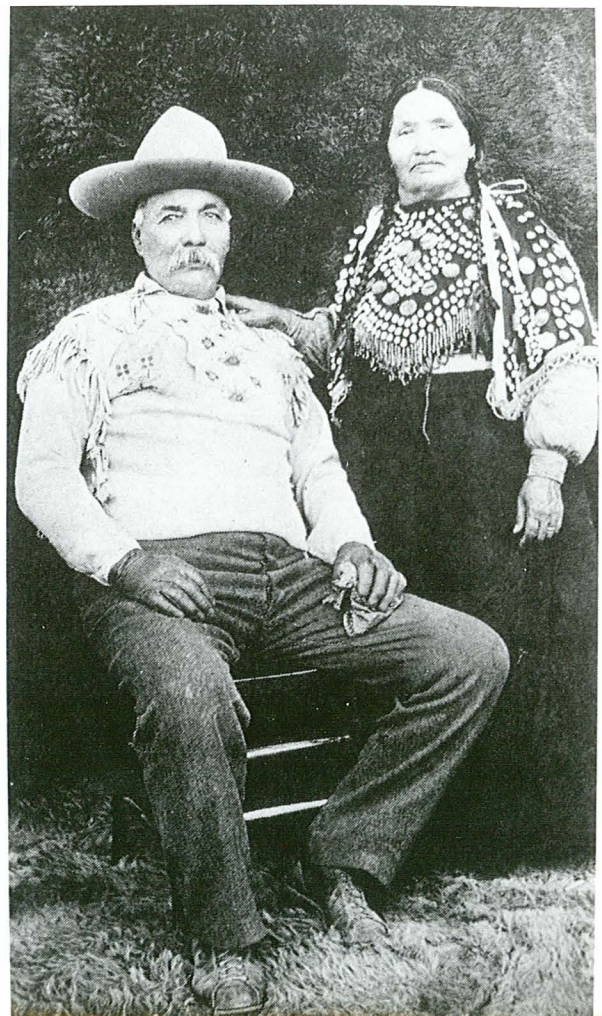

Contemporary Cartoon of the times by Thomas Nast
*Harper's Weekly,* 1874.

The Last Buffalo

"Don't Shoot my good fellow! Here. Take my 'robe'
save your ammunition and let me go in peace."

The Hon. James McKay c. 1875.
Glenbow-Alberta Archives

Early Bison conservationist and Speaker of the Manitoba Legislature.
A Metis, McKay and his associates conserved young bison at a crucial stage on the Canadian prairies towards the end of the open bison-hunting era.

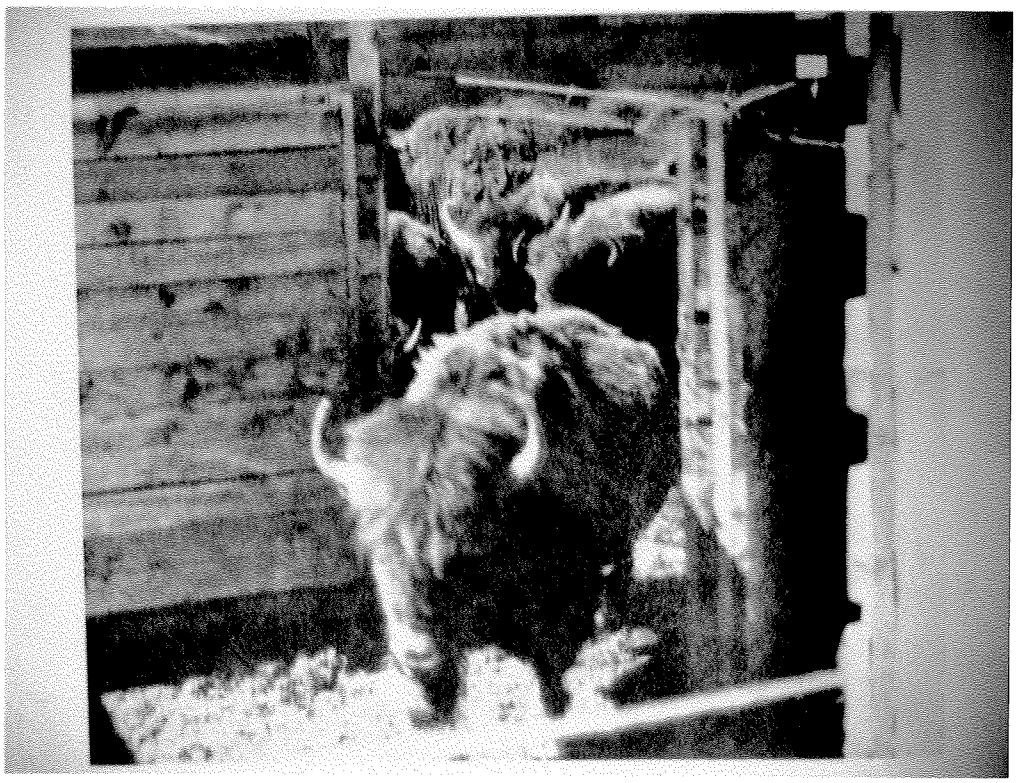


Michel Pablo and his Wife. c. 1907.
Montana Historical Society

Women often accompanied Pablo's cowboys during the years of the bison round-up on the Flathead Reservation in Montana.

Round-up of bison on the Flathead Reservation, Montana. 1908
Montana Historical Society

Bison being discharged from Train at Lamont, Alberta. 1907
National Archives. Canada



compromised values associated with the known best-use of the land.[13]

Trends of thought and practice were in the other direction however. As early as 1903 Frank Oliver had proposed that existing forest reserves should be expanded in function: 'I would however, think it would be very good policy to declare the timber reserve a preserve for large game.'[14] Forest Reserves were increasingly being acknowledged as lands on which activities such as wildlife conservation, grazing, and recreation might be pursued simultaneously; and parks, as a form of reserve, were thus viewed as lands on which a number of public objectives might be realized, including game protection.

## 2.2

## Elk Island Park Development in the Early Years.

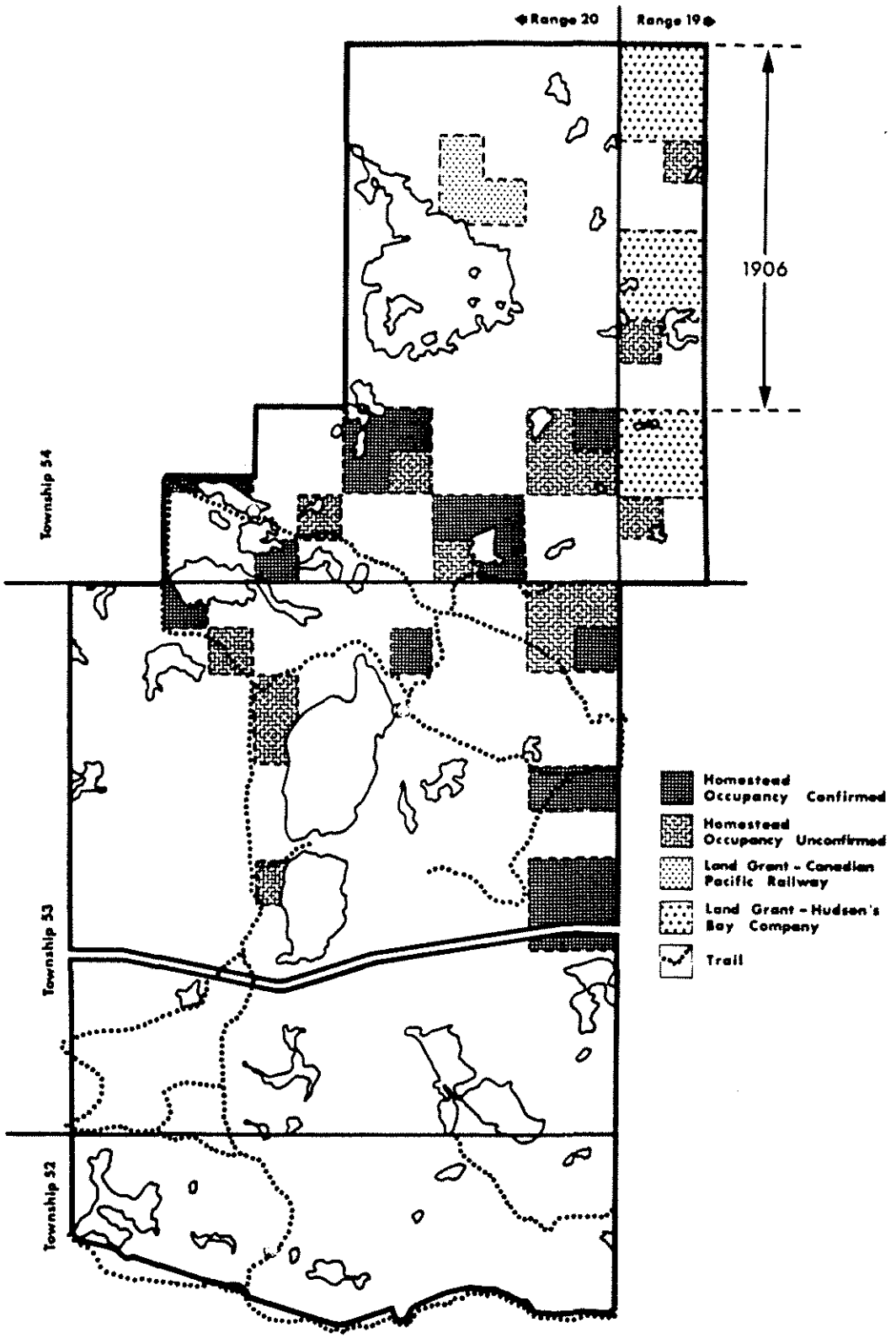
Since its inception, park administrators at Elk Island have had to balance a steady series of demands concerning wildlife management and protection with local pressures for recreational development. The completion of the Grand Trunk Railway along the Yellowhead Route through Edmonton in 1907 led to the rapid expansion of Edmonton and produced an attendant interest by the citizens of that city in Elk Island.

Ellsworth Simmons was the first appointed manager of Elk Island and his tenure was relatively short. A residence was erected for him in 1907, a building which has been in continuous use ever since and is now considered to be the oldest Park Superintendent quarters in the national system.[15] In response to occasional complaints from the public, Simmons requested appropriations for the construction of cross-fencing which sheltered hay meadows where the bison might graze in open view.[16] Thus, very early in the history of Elk Island, the notion that is should be something of a zoo as well as a game sanctuary, started to emerge, a view which became much stronger in the 1920s.[17]

Simmons was replaced in 1909 by Archie Coxford who oversaw Elk Island's development for a quarter of a century. He tended to visualize the park as an adjunct to Edmonton, as 'the only place where tired people can go' and hence did what he could to improve visitor facilities at Elk Island.[18] The conditions of war between 1914 and 1918 delayed public expenditure on Elk Island for recreational purposes, but by 1919 Superintendent Coxford was giving some

Map 10 Elk Island Park Historic Land Use and Settlement: Post-1870

Parks Canada. Resource Management Planning



consideration to an expansion policy. Regarding recently received applications for leases for building purposes, Coxford expressed the opinion that 'I think, as the parks are generally supposed to be for the enjoyment, rest and recreation of our people, that provision should be made here for the people of this part.'[19]

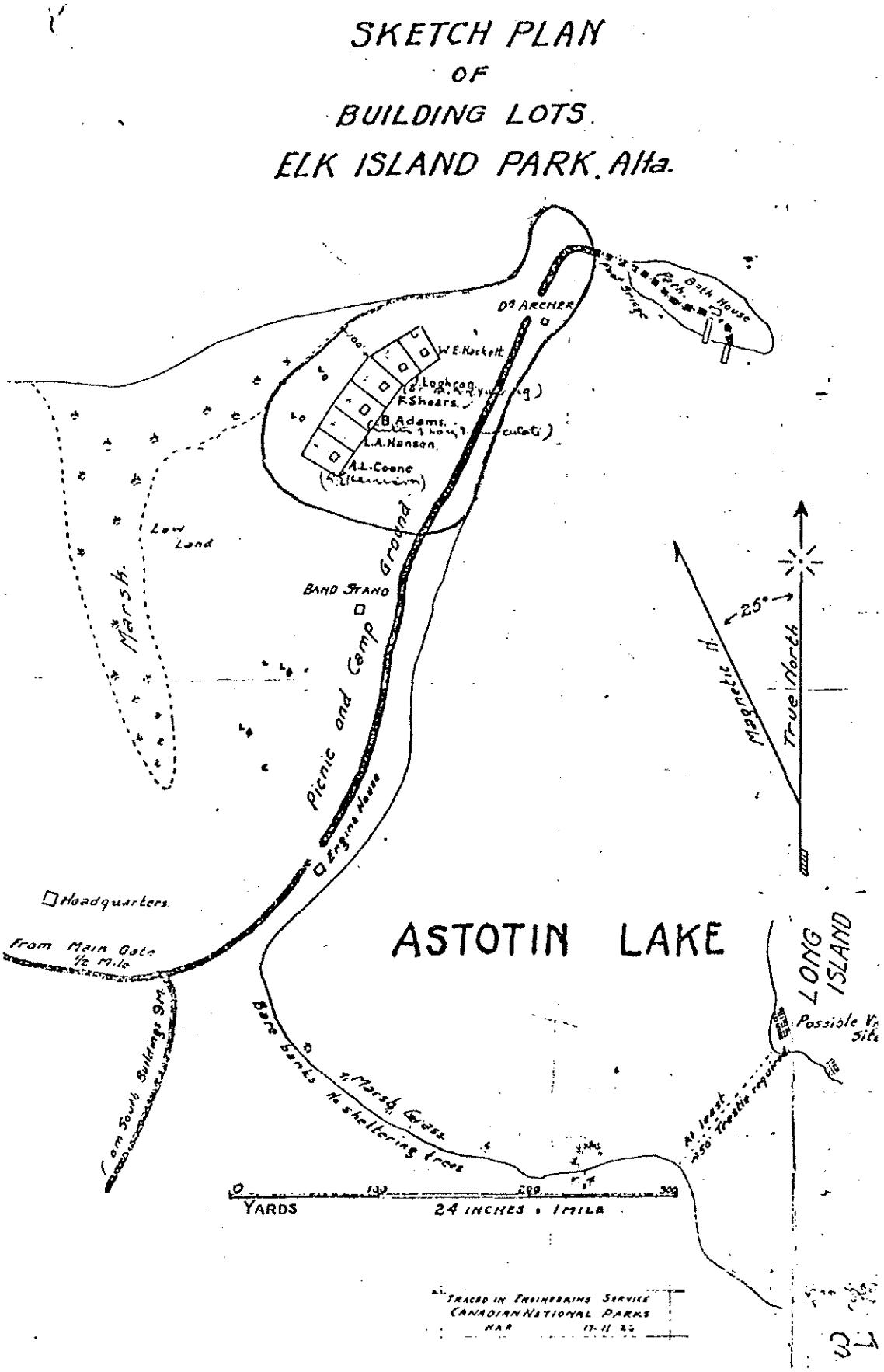
> no where for miles around is there such a beautiful place, but because they could not build anything permanent heretofore the people of these districts have had to travel long distances for their rest or get none at all. While tenting is very well in a way, it is very difficult to fix a tent so that it is immune from the mosquito plague, of which generally, we have a very good share, and it is very uncomfortable in a tent if a three day rain happens to come along.

Subsequently, Coxford catered to the modest demand for cottage lot subdivision around Astotin Lake and, according to his report for 1922-23. facilitated certain road improvements in the park in favour of residents from the Fort Saskatchewan and Lamont areas.[20] (Map 11) In the 1920s at least seven cottages were built, but not without some attendant problems in water supply.[21]

Pressures for the opening up of lease opportunities and development of a townsite were considerable in the last half of the 1920s. Conditions for cottage expansion at Headquarters Point had reached their limit. J.M. Wardle stated that 'Any further building would seriously encroach on the public picnic and campground'.[22] Interest now lay in finding other areas in the park which might be suitable. The east shore of Lake Astotin at Sandy Beach and sites on Long Island, became the main candidate areas. Over the next ten years J.B. Harkin maintained a steadying hand on this process. Superintendent Coxford was inclined to acquiesce to local demand while some senior officials showed little interest in the possible long-term conflicts which might come about through short-sighted development policies. Harkin opposed execution of formal surveys for building and lease lots until a genuine demand was demonstrated. In the late 1920s, the orientation of Assistant Deputy Minister R.A. Gibson was more towards a policy which stimulated local demand and which paid close attention to regional interest groups. Gibson wrote to Harkin in 1928:[23]

**Map 11** Cottage Development on Astotin Lake, 1920s

National Archives of Canada



> Superintendent Coxford seems to think that there would a good summer cottage business at Elk Island if we could get some cottage sites surveyed. Mr. Wardle ought to look into this and see what can be done.

Following a lengthy exchange of memos among the park, headquarters staff, Wardle's Banff Engineering Office, and the Deputy Minister's office, it was clear that Harkin still favoured the curtailment of any new townsite survey at Elk Island. The Deputy Minister responded to a summary provided by Harkin as follows:[24]

> I am returning herewith your memorandum of the 25th ultimo...I trust that you will find time to visit Elk Island Park this summer. This park is becoming increasingly important to the citizens of Edmonton, and a special impetus is given to it by reason of the fact that the Elk's Society is very strong in the province.

It is not certain from the record if the Deputy Minister was writing with tongue-in-cheek with respect to the Elk's Society, or if he really in fact thought that there was a client group interest to be contended with.

Over the next two years, Harkin and Wardle continued to investigate the possibilities for cottage lot sub-division, in accordance with Gibson's directions. On the eve of the great depression and the passage of the new National Parks Act, the Sandy Beach and Long Island areas were again considered, but the economic downturn associated with the great crash of 1929 and the departure of the liberal government, put these initiatives into the background for some time.[25]

Up until 1930, there had been a certain amount of improvement in the road network.[26] According to Scace, the road improvements of the day were better described as 'fire-guards', for Coxford was very fire-conscious and had been building fire guards since 1910, often allowing them to duplicate as roads. Frequently they were modified bison trails which tended to follow higher and dryer ground.[27] As has been seen, there were sound reasons for Coxford to be 'fire-conscious' in those days.

During its first twenty-five years, Elk Island National Park made some modest progress in the establishment and provision of public recreation and services. The notion that the primary purpose of the park, that of a wildlife sanctuary, was compatible with a certain amount of unrelated public uses, was not seriously questioned except by a few. The economic events set in motion in 1929

however, proved to be of some advantage for those who leaned towards a conservationist vision for Elk Island, for the growth which had been fuelling the new automobile tourism underwent a twenty-year hiatus, the consequences of depression and war.

## 2.3

## Wildlife and Park Development

Contemporary accounts of the area around Elk Island National Park, on the eve of its establishment, seemed anything but promising with respect to the project of conserving an element of the old buffalo landscape, or any other landscape, for purposes of a wildlife sanctuary. By 1911 however, the forces of regeneration had provided a thick and reliable series of grassland meadows, quite sufficient for the heavy grazing demands which were being placed upon the enclosed park. In his annual report for the year 1910, Superintendent Coxford noted that 'There is excellent pasturage in the park. All the Hay for winter feed for buffalo was cut inside the park'[28]

Net grazing lands may have in fact started to diminish as a result of the post-1900 invasion of the park grasslands by aspen. This invasion was vigorous, following upon twenty years of regular fire, and encouraged by a new policy of fire suppression on public lands.The ungulates nevertheless, began to increase in numbers after 1911, owing to the policy of protection from hunters, the lack of natural predators, and the lush nature of the post-fire vegetation. As early as 1915, park expansion was being advocated. In that year the Commissioner of Dominion Parks noted that 'as the buffalo and other animals are increasing, I would strongly urge the extension of the boundaries of the park in a southerly direction. The lands to the south are not so heavily timbered and would make excellent pasture land.'[29] The lands in the Cooking Lake Forest Reserve complemented the ecological dynamics within Elk Island Park to a considerable degree. Fire suppression and a 1918 move by the Alberta Government to establish both the Cypress Hills and Cooking Lake Forest Reserves as game sanctuaries, tended to blend and unify somewhat, the land management objectives of the day for the Beaver Hills area.[30]

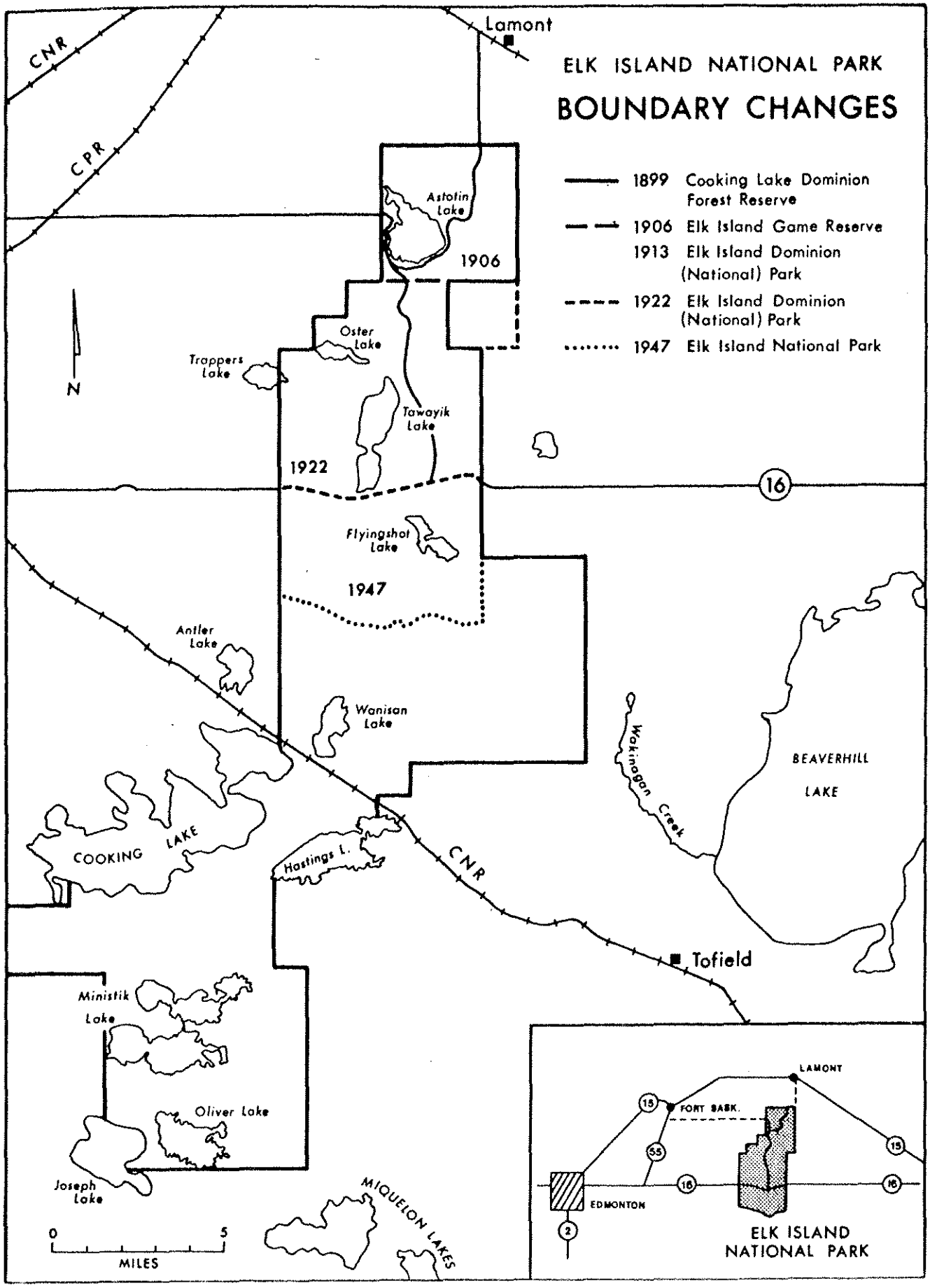
Despite the preoccupations of early land managers at Elk Island with large ungulate conservation, it would be incorrect to suggest that they were blind to the broader wildlife concerns of the new park system. The limitations of what could be achieved in this regard were set by the great environmental alterations of the twenty years between 1880 and 1900. While after 1900 fire was tightly controlled, other forces had already come into play, reinforcing the radical transformation of the landscape initiated in the early 1880s. The combination of land-clearing and water impoundment produced a quite different series of water regimes in the Beaver Hills, and these tended to change its ancient character as an oasis. Historical reports from the mid-eighteenth century onward, tended to confirm a richness and diversity of fauna in the Beaver Hills.[31] The close student of Beaver Hills environmental history, Edo Nyland, documented what he considered to be the deaths of a number of watersheds in the hills region.[32]

The early stages of this alteration of water levels came about through the excessive timber clearing and conscious setting of fires. A general drawing down of the water table commenced which reverses upward only temporarily in the wake of heavy seasonal rains. While beaver populations fluctuated in fur trade times as a result of both heavy trapping and the seasonal cycles of population to which that rodent is subject, the situation in the Beaver Hills had become, in the early twentieth century, one which was ecologically hostile to the presence of beaver. Thus, in a memorandum to J.B.Harkin in 1923, a park officer noted: 'There is only one pair of beaver in the park' and that the 'superintendent was of the opinion that beaver could live there without causing any damage and if additional pairs could be easily secured in any of the other parks and shipped there they would add considerably to the interest of the place to visitors'.[33] At the same time, it was noticed that blue herons on Crane Island were being subjected to disturbance from motor boats and the recommendation was made that such boats should be banned from the area. These were progressive suggestions, but they also pointed to a seriously depleted system of water resources at Elk Island. What had been a historically rich area of biodiversity in which the beaver had been prevalent, was no longer such.

A significant development related to the general wildlife program came in 1922 when another 35 square miles (94 sq. Km.) were added to the park through an extension southward into lands in the Cooking Lake Forest Reserve. This took the park at its south boundary to the right-of-way of Highway 16. Two patented homesteads enclosed by the extension, were soon afterwards purchased for the park. In 1925, several hundred acres in possession of the Hudson's Bay Company, became the object of a land exchange with the Crown. By December of 1922, these new lands had been fenced in and bison admitted to these new

Map 12 Elk Island Park Expansion: 1906-1947

After Scace (1976)



grazing areas which were less heavily forested than the land in the north end.[34] (Map 12)

The ungulate conservation program had been a definite success in its first quarter century, if sheer numbers are a measure. Superintendent Coxford reported the following statistics in his report for 1912:[35]

| | |
|---|---|
| Buffalo | 60 |
| Moose | 19 |
| Elk (estimated) | 35 |
| Deer (estimated) | 45 |

By 1924 the numbers in the bison herd alone had expanded disproportionately. A corral had been built in the new south end lands in order to facilitate rounding up of animals for treatment or shipment, and in 1928, a small abattoir was erected, mainly for purposes of an anticipated need for regular bison slaughters, the herd now numbering about 1700 head.[36] These physical plant additions were symptomatic of what the future held, but they were also visible institutional signs of what was a fairly wide range of landscape manipulations which had been on-going since 1906, and which were implicit perhaps, in the initial choice to establish a park and nature conservancy on geographically limited terrain.

# Endnotes

1. Robert C. Scace, *Elk Island National Park: A Cultural History* . (Ottawa. National Parks and Historic Sites Branch. 1976), pp. 86-7

2. N.A. RG 84 Vol. 479 E.2 Boundaries 1903-1938, W.H. Cooper, "A Game Guardian from the North West Territory to Frank Oliver" Ottawa. Aug. 15, 1903.

3. W.F. Lothian, *A History of Canada's National Parks*. Vol. 1 (Ottawa: Parks Canada, 1976), p. 48; on the name 'Astotin' see Anon. 'A History of Elk Island National Park in the Province of Alberta' Typescript. May 9, 1957. Historical Services Division Files. (Registry File. 63/1-I6-5)

4. Ibid.

5. Ibid. pp. 48-9

6. Cf. Sheilagh C. Ogilvie *The Park Buffalo*. Calgary-Banff: National and Provincial Parks Association, 1979; W.F. Lothian, *A History of Canada's National Parks,* Vol. IV. Ottawa: Parks Canada, 1981, pp. 23-40; Morley A.R. Young, *An Account of The History of the Buffalo: Elk Island National Park:* . Northern Alberta Pioneers and Old Timers' Association. Nov. 15, 1961; *The Last of the Buffalo* (Cincinnati: 1909)

7. Cited in Lothian, *History*, Vol. IV, p. 28

8. Ibid. p. 29

9. Scace (1976), p. 109

10. Scace, (1976), p. 94

11. Cf. Samuel P. Hays, *The Gospel of Efficiency: the Progressive Conservation Movement, 1890-1920.* (New York: Atheneum, 1969), Ch. V. For some of Pinchot's mature, but mainly unchanged, thoughts see Gifford Pinchot, *The Training of a Forester* Rev. Ed. (Philadelphia: Lippincott, 1937), Ch. 2. 'What Good is a Forest?'

12. W.N. Millar, 'The Big Game of the Canadian Rockies' in *Conservation of Fish, Birds and Game.* (Toronto. Commission of Conservation. 1916), pp. 100-24

13. Millar (1915), p. 124

14. N.A. RG 84 Vol. 479 E.2 Boundaries 1903-1938, Oliver to Smart. Sept. 2, 1903.

15. See Richard Stuart, *The Superintendent's Residence, Elk Island National Park*. Microfiche Report Series No. 204. (Ottawa: Parks Canada, 1985)

16. Lothian, *History,* Vol. 1, p. 48

17. N.A. RG 84 Vol. 481 E. 232 Pt. 1 Memo to J.B.Harkin. Dec. 28, 1923

18. Scace, (1976), p. 124

19. N.A. RG 84 Vol 1005 File E.16 1919-1928. Pt. 3. Lands Outside the Townsite. Coxford to Harkin. Jan 20, 1919.

20. N.A. RG 84 Vol 1005 File E.16 1919-1928. Pt. 3. Lands Outside the Townsite. Coxford to Harkin. Jan 20, 1919.

21. Scace (1976), Appendix B; and N.A. RG 84 Vol 1005 File E.16 1919-1928. Pt. 3. Lands Outside the Townsite. Sketch plan of Building Lots EINP 1925.

22. N.A. RG 84 Vol 1005 File E.16 1919-1928. Pt. 3.( Lands Outside the Townsite). Wardle to Harkin. Nov. 26, 1925.

23. N.A. RG 84 Vol 1005 File E.16 1919-1928. Pt. 3. Lands Outside the Townsite. R.A. Gibson to J.B. Harkin, June 20, 1928

24. NA RG 84 Vol. 1005 File E.16 1919-1928. Pt. 3. Lands Outside the Townsite. R.A. Gibson, to J.B. Harkin. Aug. 31, 1928.

25. N.A. RG 84 Vol. 1005 E. 16. Pt 2 (1928-1941); J.B. Harkin to J.M.Wardle. Oct. 5, 1928; Wardle to Harkin. Oct. 25, 1928; Harkin to Gibson. Nov. 5, 1928; Wardle to Harkin. Jan. 30, 1929. Wardle to Harkin. Feb. 1, 1929.

26. Anon. 'A History of Elk Island National Park in the Province of Alberta' Typescript. May 9, 1957. Historical Services Division Files. (Registry File. 63/1-I6-5) p. 4

27. Scace (1976), p. 124

28. *Annual Report of the Park Superintendent. Elk Island National Park.* 1910. Canada. Commissioner of Dominion Parks. (Ottawa: Department of Interior. 1911).

29. *Report of the Commissioner of Dominion Parks.* 1914. (Ottawa: Department of Interior. 1915)

30. Scace (1976), p. 95

31. See Blyth and Hudson (1987), pp. 71-2, 100. Cf. Losey (1978)

32. Edo Nyland, 'This Dying Watershed' *Alberta, Lands, Forests, Parks, Wildlife.* 12:(3)

(1969). 22-38, and 'Miquelon Lake' *Alberta, Lands, Forests, Parks, Wildlife.* 13:(1) (1970), 18-25

33. N.A. RG 84 Vol. 481 E. 232 Pt. 1.Memo to J.B.Harkin. Dec. 28, 1923

34. Scace (1976), pp. 114-15

35. *Report of the Commissioner of Dominion Parks.* (Ottawa: Dept. of the Interior. 1912 ), p. 81

36. *Annual Report of the Commissioner of Dominion Parks.* 1924 (Ottawa: Dept. of Interior, 1924.); and Scace (1976), pp. 110-11

# Chapter Three

## Elk Island National Park In the Context of Wildlife Management Ideas 1870-1945

### 3.1 Ideas of Conservation: 1870-1911

The publication by George Perkins Marsh of his pioneering study, *Man and Nature,* in 1864 marked the beginnings of systematic enquiry into the history of North American land use practices.[1] This was the work which Lewis Mumford later described as 'the fountainhead of the conservation movement.'[2] The import of the book is to be found more in its sub-title: *Physical Geography as Modified by Human Action.* Marsh laid out for his readers, in great detail, what he took to be the lessons, in the old world for the new, of soil erosion and deforestation. Almost twenty years earlier Marsh had introduced his main theme to some of his fellow citizens of Vermont. The American pioneer, with his compulsion to settle and clear, had produced a changing scenery: 'Every middle-aged man who re-visits his birth-place after a few years of absence, looks upon another landscape than that which formed the theatre of his youthful toils and pleasures.'[3]

As the western frontiers in both the United States and Canada began to close in the last decade of the nineteenth century, an interest in improved land use became more widespread and Marsh's work took on greater significance. The initiation of a national park movement, in both countries was one of the early manifestations of this new regard for the closure of the frontier and also signified the passing of a view of the land which had only minimum regard for what today we call wilderness values.

A preference for the elimination of certain types of mammalian fauna had become normative in most parts of North America since the earliest days of European settlement. This elimination was usually motivated by ideas of predator control, protection from what were perceived to be dangerous marauding animals, and the cutting back of habitat in the interests of agriculture.[4] In the nineteenth century the western portions of North America were progressively enclosed.[5] The coming of railway enterprise and overland trails made the great herds of bison particularly vulnerable to hunting practices on a scale unfamiliar in previous centuries during which the bison had been the main 'staff of life' to

generations of aboriginal peoples on the great plains and their adjacent outliers such as the Aspen Parkland belt.[6] After 1890 a movement towards a reformulated view of the relationship between land and life was put on foot in both countries. In the United States this movement is most frequently associated with the thought and practice of Theodore Roosevelt, like-minded sportsmen, and the rise of 'the progressive movement' during the first two decades of the twentieth century.[7] In Canada, personalities such as William Pearce and Clifford Sifton gave early impetus to the development of a philosophy of renewable resources.[8] There has normally been a close correspondence between the development of American and Canadian ideas related to natural resource conservation and management since the 1890s, and legislation in the two countries has often run parallel both in terms of the time of its passage and in its content.[9]

The important American conservationist, Aldo Leopold, summarized the contribution of the ideas of Theodore Roosevelt and his policies in the following way:[10] 'The Roosevelt doctrine of conservation determined the subsequent history of American game management in three basic respects:'

1. It recognized all these "outdoor" resources as one integral whole.

2. It recognized their "conservation through wise use" as a public responsibility, and their private ownership as a public trust.

3. It recognized science as a tool for discharging that responsibility.

In Leopold's view, the Roosevelt era 'left cloudy' the question of what kinds of game could be best renewed under public initiative and what kinds 'by public encouragement and regulation of private initiative.'[11] Roosevelt predicted, accurately it seems, through a 1909 statement, the potential viability of a mixed public-private policy and system of reserves:[12]

> Game preservation may be of two kinds. In one the individual landed proprietor, or a group of such individuals, erect and maintain a private game preserve, the game being their property just as much as domestic animals. Such preserves often fill a useful purpose, and if managed intelligently and with a sense of public spirit and due regard for the interest and feelings of others may do much good, even in the most democratic community. But wherever the population is sufficiently advanced in intelligence and character, a far preferable and more democratic way of preserving the game is by a system of public preserves, of protected nurseries and breeding grounds, while the laws define the conditions under which all alike must enjoy the privilege. It is in this way that the wild creatures of the forest and mountain can best and most permanently be preserved.

## 3.2 The Context of Wildlife Conservation Ideas: 1911-1930

According to Leopold, the Roosevelt years marked a sea-change in the history of conservation ideas. Until late in the nineteenth century, naturalists had been largely content to catalog species, but with the gradual dawning of the realization that industrial conditions were taking a toll on wildlife, a new type of practitioner - 'the Crusader for conservation' - was born. This was a new kind of naturalist, often taking the form of a rural-based hunter, who refused to accept the conventional wisdom whereby the passing of threatened species was recognized as providential. The emergence of such a personality, Leopold took to be the herald of 'one of the milestones in moral evolution.'[13]

In Canada, intimations of the new ecological thought developed roughly in parallel with U.S. experience. In 1918 Hoyes Lloyd was hired by the National Parks Branch to administer the Migratory Birds Convention Act.[14] The National Parks Branch, under the leadership of J.B. Harkin, was about to begin to question the traditional view taken of predators in the parks. For example in 1920 the official predator list was still a lengthy one, and still identified, among others, the following species:[15]

Puma, wolf, coyote, lynx, bear (if nuisances), gopher, porcupine, eagle, hawk, woodpecker and blue heron (for eating geese eggs)

The list was greatly reduced in 1924, particularly with respect to birds, and in January, 1925 Harkin released a statement which set out a comprehensive philosophy for the conservation of species in the national parks.[16] Later in that year the new conservation was confirmed by the senior administration of the Department of the Interior.[17]

Canadian and American administrators remained in close touch in these years. At the national levels, policy was evolving in a very complementary manner, and by 1930 both countries had quite radically revised their official policies on predators in the parks.[18] A new form of public opinion had gradually come into being in support of such changes. In 1900, a typical Roosevelt supporter might have aspired to join the prestigious *Boone and Crockett Club*, an organization of big game hunters founded in 1888 by Roosevelt. The motives of the club were not limited to the hunt as such, but also concerned the therapeutic benefits of the hunt on the mind of the hunter.[19] It was in large and limited form,a template for what Ernest Thompson Seton's *Wildcraft League* and Baden Powell's *Boy Scouts* were to exemplify for the new urban youth of America and Britain after 1900. The Boone and Crocketters thought of themselves as progressive in terms of wildlife policy. The organization's name provided a nostalgic image for those who were witnesses to the passing of the last open frontier. By the later 1920s the *Boone and Crockett Club* had been replicated by local fish and game clubs and associations. In July, 1928 at the *Calgary Board of Trade* delegates from twenty-two such local Alberta organizations came together to form the *Alberta Fish and Game Association*..[20] The first tangible public benefit which came out of the new association's activities was the adoption by the Alberta Provincial Legislature of a recommendation that annual bag limits be passed once a year. This was not to be done, as previously, in the dead of winter, but at such a time when sound statistical information was on hand such as could provide a basis for a sound annual limit.[21]

## 3.3 Elk Island and the New Conservation: 1930-45

Marsh's Man and Nature, had set out a broad agenda for natural resource use reform in 1864. In the area of wildlife Management, the name Aldo Leopold was steadily coming to the fore. The appearance of *Game Management* in 1933 was a landmark in the literature, for it looked both back and ahead. Leopold modified many of his views with the passage of time, his ideas taking on more and more of the ecological point of view.[22] The shift in attention from field recording towards theory was noted by Leopold in 1933:[23]

> The early attempts to apply biology to the management of game as a wild crop soon disclosed the fact that science had accumulated more knowledge of how to distinguish one species from another than of the habits, requirements, and inter-relationships of living populations. Until recently, science could tell us...more about the length of a duck's bill than about its food, of the status of the waterfowl resource, or the factors determining its productivity. It is now become more realistic. Scientists see that before the factors of productivity can be economically manipulated, they must first be discovered and understood.

Such were the ideas which were starting to circulate amongst park and wildlife managers in the early 1930s. A host of professional organizations and journals came into being in the 1930s seeking to upgrade past practice with the precision of 'science' and with a more benign view of wildlife.[24]

In Canada, the year 1930 was significant not just for the passage of a new National Parks Act, but also for the related completion of the final arrangements for transfer of natural resource lands from the federal government to the western provinces. Elk Island National Park now entered into a period in which it was necessary to deal with new provincial agencies and authorities.[25] New land additions would become more complex to arrange; simultaneously, the depressed economy of the 1930s made the task of park management more difficult. This was particularly true with respect to an animal population which continued to increase and in respect of which the park continued to incur increased costs. (Fig.1) The new thinking coming to dominate park agencies across North America was having an effect at Elk Island. Archibald Coxford's long tenure as park superintendent came to an end in 1935. Following a brief acting-superintendency by J.A. Atkinson, a new appointment was made in the fall of 1936 in the person of Dr. B.I. Love, a veterinary by profession.[26] After the difficult years of park establishment, a period which had required the rough and

The Superintendent's Residence, Elk Island. c. 1912.

Dr. B.I. Love. Superintendent, 1937-1959

ready skills of practical men of the field, it seemed fitting to anow turn the park over to a manager trained in the sciences. The next twenty-five years saw considerable experimentation in wildlife management procedures, and a definite attempt to come to terms with the policies which had been put in place in the early part of the century. It was a period when theories of 'carrying-capacity' were both invented and contended.[27]

During the 1930s Canadians concerned with wildlife gave greater attention to developing a domestic body of theory and a pool of expertise based on local educational programmes rather than on American models.[28] While World War II interrupted the momentum, shortly after the allied victory important initiatives were taken leading to the formation of the *Canadian Wildlife Service* in 1947. The establishment of this unit was in part a recognition of the excellent advisory work accomplished in the 1940s by such eminent field biologists as A.W.F. Banfield and Ian McTaggart Cowan.[29] For the previous thirty years, officials of the National Parks Branch had administered important legislation relevant to wildlife protection. The 1947 designation of a new unit with broader powers and responsibilities, indicated that wildlife was starting to be seen in landscape contexts other than those of just parks and wildlife sanctuaries.[30]

# Endnotes

1. George Perkins Marsh, *Man and Nature: Or, Physical Nature as Modified by Human Action.* David Lowenthal ed. (Cambridge, Mass. Harvard University Press, 1965).

2. Lewis Mumford, *The Brown Decades: A Study of the Arts in America, 1865-1895.* (New York: 1931), p. 78

3. George P. Marsh ' Address Delivered before the Agricultural Society of Rutland County, Sept. 30, 1847 p. 18. Cited in David Lowenthal, 'Introduction' G.P Marsh, (1965), p. xvii

4. Cf. Donald Worster, *Nature's Economy: The Roots of Ecology* (Garden City: Doubleday, 1979), Ch. 13; Peter Mathiessen,*Wildlife in America* (New York: Viking, 1987).

5. See Irene M. Spry, 'The Great Transformation: The Disappearance of the Commons in Western Canada' in *Man and Nature on the Prairies* Richard Allen, ed. (Regina: Canadian Plains Research Centre: University of Regina, 1976), 21-45

6. See Frank G. Roe, *The North American Buffalo: A Critical Study of the Species in its WIld State.* 2nd ed. (Toronto: University of Toronto Press, 1970), Chapter XVI and XVII; and J.E. Foster , 'The Metis and the End of the Plains Bison in Alberta' in J.Foster et al. eds. *Buffalo* (Edmonton: University of Alberta Press, 1992), pp. 61-78

7. See Samuel P.Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920.* (New York: Atheneum, 1969), Ch. VII, and James F. Reiger, *American Sportsmen and the Origins of Conservation* (New York: Winchester Press, 1975)

8. E.A. Mitchner, *William Pearce and Federal Government Activity in Western Canada, 1882-1904.* Ph.d. (Edmonton: University of Alberta, 1971); and see generally the reports produced by Sifton's *Commission of Conservation* after 1910.

9. This is partially an outcome of shared borders and treaties such as the *Migratory Bird Convention Act.* In general, scientists and legislators in both countries were following similar paths. Both countries put their national park legislation on a sound footing during the first world war years and administrators in both countries re-thought predator policy in the 1920s with a corresponding series of responses favouring predators in the 1930s. Cf. Janet Foster, *Working for Wildlife: The Beginnings of Preservation in Canada* (Toronto: University of Toronto Press, 1978); Victor H. Cahalane, The Evolution of Predator Control in the National Parks' *Journal of Wildlife Management* 3 (1939), 229-37; Thomas R. Dunlap, 'Ecology, Nature and Canadian National Park Policy: Wolves, Elk and Bison as a Case Study.' in: *To See Ourselves/ To Save Ourselves: Ecology and Culture in Canada.* Association for Canadian Studies. 1991. Proceedings of an Annual Conference, Victoria: 1991. (Montreal, *Canadian Issues/Themes Canadiens,* XIII 1991).

10. Aldo Leopold, *Game Management.* (New York: C. Scribner,1947), pp. 17-18

11. Ibid., p. 18

12. Ibid.

13. Ibid., p. 19; and Cf. Reiger,(1975)/

14. Janet Foster, *Working for Wildlife* (Toronto: University of T Toronto Press, 1978), p. 159 f.

15. Ian L. Getty, *A History of Waterton Lakes National Park.* (Ottawa: National Historic Sites Service. 1972), p. 160

16. Ibid. p. 163

17. N.A. RG 84 Vol. 75. U 300. no.3 W.W. Cory, Memorandum, May 20, 1925

18. Victor H. Cahalane, 'The Evolut ion of Predator Control Policy in the National Parks' *Journal of Wildlife Management,* 3 (3) (1939), 229-37

19. See George Bird Grinnell, ed. *Brief History of the Boone and Crockett Club* (New York: 1910); and Roderick Nash, *Wilderness and the American Mind,* 3rd ed. (New Haven: Yale University Press, 1982), pp. 152-3

20. Margaret Lewis, *To Conserve a Heritage* (Calgary: Alberta Fish and Game Association, 1979), pp. 5-6

21. Ibid. p. 8

22. Cf. Aldo Leopold, *The River of the Mother Of God and other Essays.* S.L. Flader and J.B. Callicott, eds.(Madison: University of Wisconsin Press, 1991); Worster (1979), pp. 272-4; and see Richard West Sellars, 'The Rise and Decline of Ecological Attitudes in National Park Management, 1929-1940' *George Wright Forum* 10 (1) (1993), 55-77;

23. Aldo Leopold, *Game Management* (New York: C. Scribners, 1933), p. 21

24. The other giant in advancing the study of wildlife on ecological grounds was Charles Elton. The first edition of His *Animal Ecology* appeared in 1927. Significant new journals included *Animal Ecology* which commenced publication in 1932 and *The Journal of Wildlife Management* which started in 1937. On the setbacks experienced by those trying to foster a more 'ecological' view of parks during the 1930s, see Richard West Sellars, 'The Rise and Decline of Ecological Attitudes in National Park Management, 1929-1940' *George Wright Forum* 10 (1)(1993), 55-77

25. C.B. Blyth and R.J. Hudson, A Plan for t he Management of Vegetation and ungulates, Elk Island National Park. (Environment Canada: Parks. Elk Island National Park, 1987), p. 116

26. N.A. RG 84 Vol. 481 E. 232 Pt. 1. C.M. Walker, National Parks Eng. *Report on Buffalo Situation at EINP. April 24, 1936* ; and B.I. Love, *Veterinarians of the North-West Territories and Alberta* (NP. Alberta Veterinarians Association, 1965), p. 179

27. For a stimulating review of how ideas of 'carrying capacity' were generally considered during the period of Love's superintendency, see R.Y. Edwards and C. David Fowle, 'The Concept of Carrying Capacity' in *Transactions of the Twentieth North American Wildlife Conference.* March 14-16, 1955. (Montreal: Washington, D.C.: Wildlife Management Institute. 1955).

28. Thomas R. Dunlap, 'Ecology, Nature and Canadian National Park Policy: Wolves, Elk and Bison as a Case Study.' in: *To See Ourselves/ ,To Save Ourselves: Ecology and Culture in Canada.* Proceedings of an Annual Conference, Victoria: 1991. (Montreal: Association for Canadian Studies, 1991)

29. Graham A. MacDonald, *Where the Mountains Meet the Prairies: A History of Waterton Lakes National Park.* (Calgary: Canadian Parks Service, 1992), p. 91

30. Janet Foster, (1978), pp. 159, 222

# Chapter 4

## Conservation Practice at Elk Island: 1930-1970.

### 4.1 Landscape modifications and boundary changes.

During the forty years under review here, a considerable amount of change in the essentials of the Elk Island landscape took place. Significant changes were also made to the extent and terms of the territory which fell under public administration, both at Elk Island and throughout the Cooking Lake watershed. The socially-induced changes were of some consequence on a landscape which had already been radically altered after 1890 when much of the forest cover was removed and the resultant cultural landscape subjected to a fire-suppression policy.

Classifying the landscape and biological values of the Beaver Hills has always posed a problem for naturalists.[1] The variable which most consistently complicates the regime has undoubtedly been rainfall. Nyland observed that in 1865, the water bodies of the Beaver Hills were very low, well in advance of any systematic European settlement. An observer in that year noted that Beaver Hills Lake was nearly dry and that hundreds of bison has been noticed attempting to reach the centre through deep mud. Many of the animals were trapped and lost. By 1875, heavy rains had restored the lakes of the area, and by 1883, the land surveyors M. Deane and G.A. Simpson reported Beaver Hills Lake to be at a maximum. By the late 1890's levels were again low, but by 1901 a reversal of rainfall had once again filled the lakes.[2] Water levels then remained adequate, despite the heavy clearing of forest, until the early 1930's when two factors came together to produce a severely lowered water table in the hills. A combination of dams and canals accompanied by the on-set of the dry period associated with the 'dust bowl' produced changes in the water regime which are still noticeable.

A dress rehearsal for some of the post-1930 changes which took place within the boundaries of Elk Island was provided at Miquelon Lake, in the southern limits of the Cooking Lake Watershed. Starting in 1927, dams and canals were built to link this important bird sanctuary with the town of Camrose, which was running short of a domestic water supply. The draw-down induced significant losses of biological values and eroded the ability of that lake to sustain fish. Colonies of Pelicans and Cormorants were the first victims. At one of the historic highwater periods in 1901, the lake level was recorded at 2,520 feet. In

Cooking Lake. Recreationists, c. 1900.
Alberta Provincial Archives

Lowered Water Levels, Beaver Hills. 1930s
Courtesy: Edo Nyland

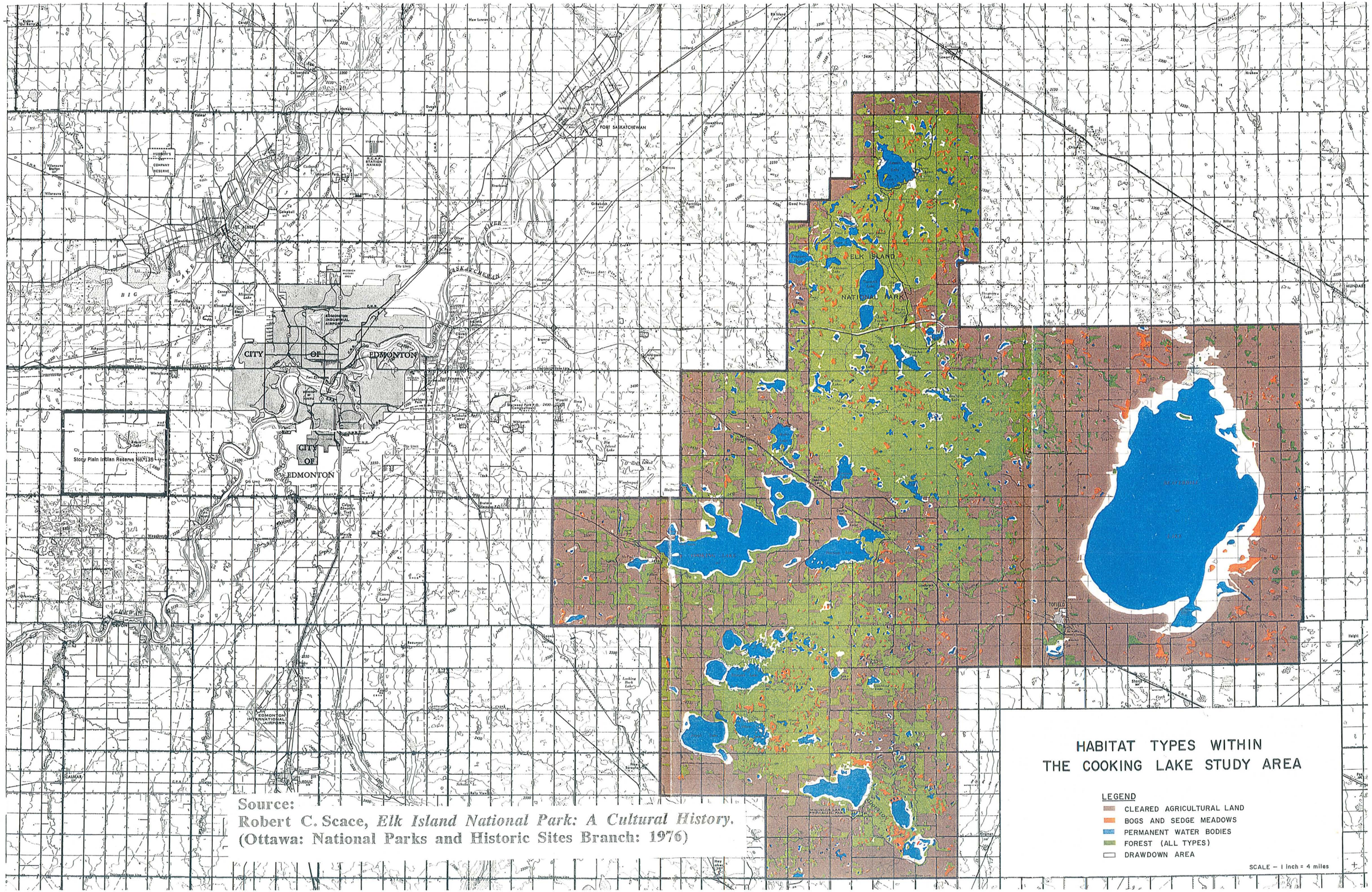
1917 the level was 2,518 but in 1929 it was only 2,510. By 1969, the level had fallen to 2,502 feet, a drop of about 17 feet from the historic high in 1901.[3]

At Elk Island similar manipulations were under way. In 1928 the CPR built a dam downstream from the main outlet of Astotin Lake. This action became the ultimate source of a major die-off of the sport fisheries and a general eutrifaction of that lake, owing to reduced flows and the closing off of fish migrations from the North Saskatwan River. Another dam at the outlet of Astotin was constructed in 1949 which further restricted the flow of water.[4] The general removal of forest cover combined with watercourse interference, produced, over the space of a century, what Nyland called a 'dying watershed.'[5] (Map 13)

Other basic changes to the vegetation pattern had been developing since 1915 when the original herd of bison which had been kept on the west side of Asotin Lake in a grassland area, were released into the southeast section of the park. With further park expansion in 1922 the normal distribution of bison changed again, with some consequences for vegetation patterns. In the early years the bison had ranged mainly in fenced in areas west of Astotin lake on grassland, quite accessible to public view. They now roamed throughout the grasslands of the southern addition.[6]

The original mandate to conserve ungulate populations combined with the initially small number of those animals, naturally made staff of the park service unusually conscious of the importance of their responsibilities. Coxford, in his Monthly Report for January, 1920, recorded: 'The months work consisted of hauling hay to the buffalo, they require a great deal more feed than usual owing to very severely cold and stormy weather. Unfortunately one of the buffalo cows was gored to death by some of her comrades and another cow has been very lame for over a year and I had shot.'[7] Feed was essential and no chances could be taken.

Blyth and Hudson have summarized the history of feed production in the park from its beginnings.This feeding began when the bison were first introduced to the park and continued until 1967 on almost a yearly basis. Hay, greenfeed and oats were all produced in and about the park for the purposes of feeding both the bison and park domestic stock. Hay production was first originally centred in the grasssland meadows around Astotin Lake. In the early 1920s, the Goose Lake meadows, the present No.1 enclosure paddock, and the Blackfoot meadows also provided hay and eventually replaced the Astotin Lake meadows. During the 1910s and 1920s between 200 and 400 tons of hay were put up per year,




Source:
Robert C. Scace, *Elk Island National Park: A Cultural History*, (Ottawa: National Parks and Historic Sites Branch: 1976)

depending upon the water levels of the lakes. During wet years flooding would eliminate substantial amounts of hay lands. During these years brushing with mowers maintained the edges of the hay field from the encroaching shrublands. In the 1930s, in response to larger animal populations, hay production was increased, allowing for between 400 and 600 tons annualy. In 1934 and 1938 approximatley 800 tons were havested. By the 1940s, with fewer natural grasslands in the park, some 1500 tons were required to feed the bison.

The major land use event in the two decades between 1930 and 1950 was the second major expansion of the park in 1947. Some twenty-four sections of the Cooking Lake Forest Reserve were added to the south end of Elk Island, following lengthy negotionas between several federal departments and Alberta provincial officials. The neogiations had started as early as 1937, intitated by the new superintendent, B.I. Love. The final agreement was an omnibus agreement involving a number of land dispositions, including the turning of the federal lands at Buffalo National Park and Nemiskam National Park back to provincial jurisdiction.[8] Since that expansion, only a few minor land adjustements in some of the border zones have been made to the park's holdings.[9] (Map 12)

By 1956, more than a section of land was under cultivation for greenfeed, oats and hay. This steady demand for feed crops had prompted the National Parks Service to purchase in 1957, the 602 acre Winarski Farm on the eastern side of the park at Highway 16. In a February 1968 commentary on that action, Superintendent T.L. Ross reviewed the history of farm operations at Elk Island, and brought into question the entire legitimacy of Elk Island as a National Park.[10] R.T. Flannegan, Head of the Resource Conservation Section in Ottawa, observed in response that the park should attempt to achieve an ungulate population of about 500 in keeping with recommendations from the Canadian Wildlife Service.[11] Lloyd Brooks of the Headquarters Planning Division added his voice to the debate by suggesting that 'Although we are in the "Buffalo Ranching Business" the Hay Farm does remain a non-conforming park use.'[12] In Brooks' view the cost comparisons for in-park production, versus external purchases of feed were very favourable. The 'make' or 'buy' option was what justified the in-park farm holding.[13] Despite the cessation of in-park haying activities in 1967, the area north of highway no. 16 and east of the south entrance remains, in the early 1990s, dominated by cultivated species.[14]

## 4.2. Park Wildlife Administration.

Elk Island National Park was conspicuous, during the first sixty years of its existence, for the relatively few superintendents placed in charge of its administration. From 1906 until 1959 these numbered only four. From the standpoint of game management, a major concern of the chief officer at Elk Island, this undoubtedly had some advantages. While an initial error in judgement concerning the long-term management of park herds might be perpetuated, the situation had the parallel advantage of allowing a given trend in managment to be tried and monitored. A regular change in superintendency tends to open the door to a re-direction of policy and practice, for better or for ill. Within the context of game management, where stability in the environment is generally desirable, the longer tenures were probably advantageous, even if park officials and scientists were not always certain about the most desirable way in which Elk Island should be managed.

By 1960, we have seen that animal numbers had consistently risen and that there had already been two park expansions, in 1922 and 1947, in order to accommodate these changes. In heavy winters feeding had normally occurred in the fenced areas west of Astotin Lake. This tradition may have continued to attract bison to concentrate there during severe winters. The rise in numbers led to the regular culling of the herd in the late twenties. This need to remove bison from the herd resulted in the round-up and movement of the herd to the southeastern portion of the expanded park, where fenced enclosures and an abattoir were located. Feeding was carried out in this location. According to Blyth and Hudson, from 'the 1930's to the late 1960's this routine of roundup for feeding and removal of surplus animals was continued.'[15]

The methods of population control at Elk Island were of several types: (1) round-up and slaughter, (2) round-up and removal and (3) round-up and sale or donation, and (4) the application of wildlife management techniques. The first type was common after 1929, the year of the first systematic slaughter, followed by a second in 1935.[16] The details of this round-up and slaughter of 512 animals has been recalled by one of the participants, Joe Campbell, who described, among other apsects, the role of sharp-shooter, Sam Purcell. A third major slaughter in 1938-9, involved some 800 bison.[17]

Of the second type of control, round-up and removal, there were several types. As early as 1923, requests had been made from various foreign and national institutions for the donation of animals. Regularly, surplus animals were sent to parks, zoos, and zoological gardens, and such requests were usually

facilitiated if at all possible.[18] Other parks in the system with greater land resources were desirable recipients, the most notable being Wood Buffalo Park after 1922. On one occasion, 500 surplus bison were sent to Wood Buffalo by truck, along with two shipments of Elk. Each animal was crated using the "three corral" milling technique.[19]

The third method, that of round-up and donation, took several forms. Requests by appropriate agencies such as universities, museums and other public departments were usually supported, while the meat from healthy surplus animals slaughtered were often donated to local Indian Reserve populations.[20] After 1929 the parks branch actively sought tenders from commercial meet-packing plants for the slaughter and purchase of excess bison.[21] For a period during the 1950s and 1960s, the National Parks Branch flirted with idea of promoting commercial sale of bison meat, as an outgrowth of its relationship with firms such as Canada Packers.[22] A Department of Indian Affairs and Natural Resources news release of 1962 suggested that 'Sweetgrass buffalo steaks will soon be adding northern sizzle to Canadian menus.'[23] Minister Walter Dinsdale announced that 'Buffalo meat from Elk Island National Park , Alberta goes on sale this year with the sweetgrass variety' and that '250,000 pounds of top quality meat from WBNP to go on sale from coast to coast on Jan. 17.'[24] With the best of marketing technique the department announced that "Everything from streamlined hind quarters to packaged buffalo burgers has been prepared to give jaded after Christmas appetites a lift."[25] The department was in business and even went so far as to publish an animal by-products price list.[26]

The fourth method, that of the application of wildlife management techniques, is more properly associated with the post-1945 period, but elements of this outlook definitely were a feature of Dr. B.I. Love's superintendency after 1936. The winter of 1936 had been particularly severe at Elk Island. Among other complications, the heavy snows brought on a major die-off of the always sensitive fish populations of the lakes of Elk Island, particularly Astotin.[27] A certain air of crisis developed with respect to the walfare of the ungulates. For much of the spring and summer, J.B. Harkin, and others, enquired into the threats to the wildlife population through the potential for disease through crowding and extension beyond carrying capacity.[28] Harkin wrote to Wardle with reference to a commissioned report by E.O. Greening in which it was contended that Elk Island was greatly overstocked.[29] There were some 5,600 animals in the park broken down as follows:

| | |
|---|---|
| Buffalo | 2,052 |
| Moose | 775 |
| Deer | 261 |
| Elk | 1,997 |

Greening took a very conservative view of the ideal carrying capacity for Elk Island, favouring a total population of only 430 large mammals.[30] An important feature of Love's subsequent approach was his ability to see the need to greatly reduce the average number of animals being supported at Elk Island, and to this view he brought his considerable skills as a veterinary.[31]

Important reports sponsored by the Parks Branch between 1939 and 1948 helped pave the way for a much wider enquiry into policy which gained momentum in the early 1960's.[32] Public pressure was mounting on park officials to adopt the view that in National Parks, wild animals should not have to be routinely slaughtered. The pursuit of more sophisticated wildlife controls and methods increasingly became the response, and this took the form of a more or less sustained commitment to habitat research (such as browse studies) and experimentation with selective culls so as to induce preferred population sex-ratios.[33]

An event of significance took place in the late 1950s which was to have one more complicating effect on wildlife administration at Elk Island. This was the discovery of a herd of Wood Bison (Bison bison athabascae) north of the Nyrling River in Wood Buffalo National Park in 1959. This new herd was assumed to be of relatively pure stock and free of Plains Bison (Bison bison) hybridization characteristic of the herds of bison in Wood Buffalo Park's southern sections.[34] In 1962 some of these Nyrling river bison were moved to an isolation area in order to ensure that they did not come into contact with the larger southern herds which were infected with tuberculosis and brucellosis. This isolated group then became the basis for the present herd in the MacKenzie Bison Sanctuary north of Wood Buffalo National Park.[35] In 1965, 23 of these isolates were sent to a segregation area in the south end of Elk Island National Park.The plan was to establish at Elk Island, one more separate gene pool of disease-free Wood Bison.[36] More recent research has brought into question the extent of the purity of the original Wood Bison stock shipped to Elk Island in 1965.[37] This 1965 shipment of Wood Bison to Elk Island ushered in one more complex phase of wildlife management at the park. (Maps 15 and 16)

## 4.3 Elk Island and the Wildlife Disease Frontier.

When considering the context in which wildlife management in the National Parks has evolved, it is necessary to consider not just the progress of agricultural settlement, the growth in local urbanism, and the alteration of habitats. There is also to consider the steady growth in knoweldge of the dynamcis of communicable diseases. This is particularly true for Elk Island National Park. Remarkable scientific developments commenced in this body of knowledge at about the same time as the onset of settlement in the Beaver Hills. The state of human and veterinary medicine in 1880 differed radically from what it was in 1911, and again as much in 1945 as in 1990. On the testimony of medical practitioners themselves, there is normally a considerable delay between the positing of a theoretical advance, and its general adoption.[38] Park managers and national policy-framers can not, as a rule, make decisions which run in advance of the state of public knowledge in crucial areas such as public health. Shifts in policy taken with respect to wildlife are, as a rule, made on the conservative side, owing to a general preference for following the tried and the true. When the best evidence has been assembled however, and contrary decisions are taken, despite the evidence, as occasionally happens, science and professional management may be seen to have been displaced by politics.[39]

The main transformations in animal disease research are closely related to the progress of human medicine in the late nineteenth century. This 'revolution' was more properly a coming together of many previous advances which had been made over the previous century; but it is generally considered to be symbolized best by the so-called 'germ' theory of medicine, a theory which slowly displaced a longstanding body of medical diagnosis stretching back into classical antiquity. In essence, the long labours of a number of scientists, wed to their microscopes, had borne definitive fruit in 1882 when Robert Koch, building on the achievements of the last forty years of European research, succeded in isolating the 'Bacillus Tubercule.' That long-standing scourge of the 19th century,- 'consumption'- was now seen to be the product of a microbe, a small living organism. This was the concrete realization of what other giants in the field of medical research had been suggesting for some time. In 1877 for example, Louis Pasteur had published an important paper on anthrax, (a subject Koch was also working on at that time) and this was fully twenty years after Pasteur's first efforts at articulating the probablility of a 'germ theory' of disease.[40] The combined work of Pasteur, Lister, Koch, and others, had by 1875 gone far to convince the leading medical practioners that there was, in many instances, a relationship between disease and living micro-organisms.[41] For the next fifty years however, there would be a debate about the actual significance of this

theory in terms of broad prevention. The tendency was to attribute too much significance to the organism as such. Hence, Dubos has suggested that 'during the first phase of the germ theory' the significant factor of virulence 'was regarded as lying solely within the microbes themselves.'[42] In the early part of the century, public experience with confined wildlife in large numbers was still short. Modern insights into the dynamics of contagion were lacking and it took some time for the actual mechanics of disease transfer to be worked out, even in rudimentry terms.[43] In the pre-World War I years, it was known that disease could spread between species and so preventative considerations focused mainly on the proximity of the wild ungulates to their neighbouring domestic relatives. With the passage of time however, and greater enquiry, a respect for other surrounding environmental factors came into play. 'Now virulence is coming to be thought of as ecological.' In other words, the degree to which an individual lives 'in equilibrium with microbes or become their victim depends upon the circumstances under which he encounters them.'[44]

These last suggestions were still only dimly percieved in 1918 and are important considerations with respect to the period of wildlife management at Elk Island after 1920, for two reasons.[45] The first concerns the general uncertainty with which specialists in wildlife disease and management still had to contend concerning the character of such important bovine diseases as tuberculosis and brucellosis. The second concerns the relatively confined nature of the environment at Elk Island (and in other similar wildlife sanctuaries), compared with the ancient expanses in which large ungulates had, since time immemorial, been reared and roamed. The hard-learned lesson was that it is difficult to tell if a given animal is a 'carrier' or not, and that, as one confines animals in progressivly limited space, their ability to transmit certain diseases radically increases.[46]

An interest in animal-related diseases has increased among park managers since the mid-1920s, and the debate concerning transfer of plains bison to Wood Buffalo National Park.[47] 'The shipment of animals to Wood Buffalo National Park, a controversial move during a period of equally controversial bison management, resulted in the hybridization of plains and wood bison and the spread of tuberculosis from the Wainwright herd to the northern herd.'[48] (Map 14). The first formal disease inspection of animals at Elk Island was undertaken in 1929 in the aftermath of a slaughter. After a second major slaughter in 1935 more than 500 bison were tested and found to be free of disease. In 1938-39 some 800 bison were tested and found negative. Feelings of optimism developed at that time that the bison herd was disease free.

Old Corral at Elk Island National Park. 1992.

Plains Bison and Mature Aspen Growth, Elk Island 1992

In 1942 Dr. B.I.Love began to establish animal handling facilities suitable for the testing of entire herds, and isolation areas which would allow for the maintenance of disease-free animals.[49] 'It was necessary to construct about ten miles of eight foot fence to provide necessary enclosures. The construction of the new corrals, with pens, squeeze, loading chutes, etc., was completed in 1945.'[50] Before the facilities were completed in 1946, six hundred bison were tested in 1944 and assessed to be free of disease, but in 1945 six animals tested of 400 were found to have TB-like lisions on the lungs. In 1946 Dr Love 'with the veterinarian's professional caution' was finally able to test the entire herd of bison for tuberculosis and 'this is thought to have been the first time when a large herd of wild animals had been so tested.'[51] Any animals not capable of being rounded up were killed and then taken to the abbatoir for post-mortem examination.[52] The animals received the 96 hour tuberculin intradermal test. Superintendent Love has recalled the details of that first herd treatment:[53]

> To conduct the test after the round-up was completed about twenty-five men were required to move the animals through the avrious pens and squeeze. The tuberculin injections and the readings were made in the squeeze. By constant observations and fast action on the park of the Park Wardens and the men operating the stop gates in the chute to the squeeze, 552 buffalo were injected in the first (eight hour) day.

All reactions were negative that year and when repeated on 1305 animals in the following year, the results were again negative. In early 1947 testing of 1,949 bison was negative but later that winter 6 of 37 bison tested showed positive for Brucellosis. In addition, in the late 1940s sixteen cases of actinomycosis on the heads of bison were detected along with some positive reactions to Rickettsial Rocky Mountain Q fever.[54]

In an effort to eradicate these disease the new park addition south of Highway 16 was employed as an isolation area, but this proved ineffective and before long animals in all parts of park were infected with brucellosis. 'By the mid-1950s the outward signs of Brucellosis were evident in the bison herd.'[55] By 1959, 52% of the animals tested showed positive. This led to a large slaughter in 1959 and 1960. All calves, yearlings and two-year olds were subsequently vaccinated, ear-tagged and branded for easier identification. The disease then underwent a steady deline until 1972 ,when Elk Island was pronounced Brucellosis-free. This was not the case in the Wood Buffalo National Park area, where the effects of plains bison shipments and hybridization had unleashed a major long-term erosion of the population.[56] At Elk Island, no effort was made in these

Louis Pasteur dictating notes to his wife
c. 1865.

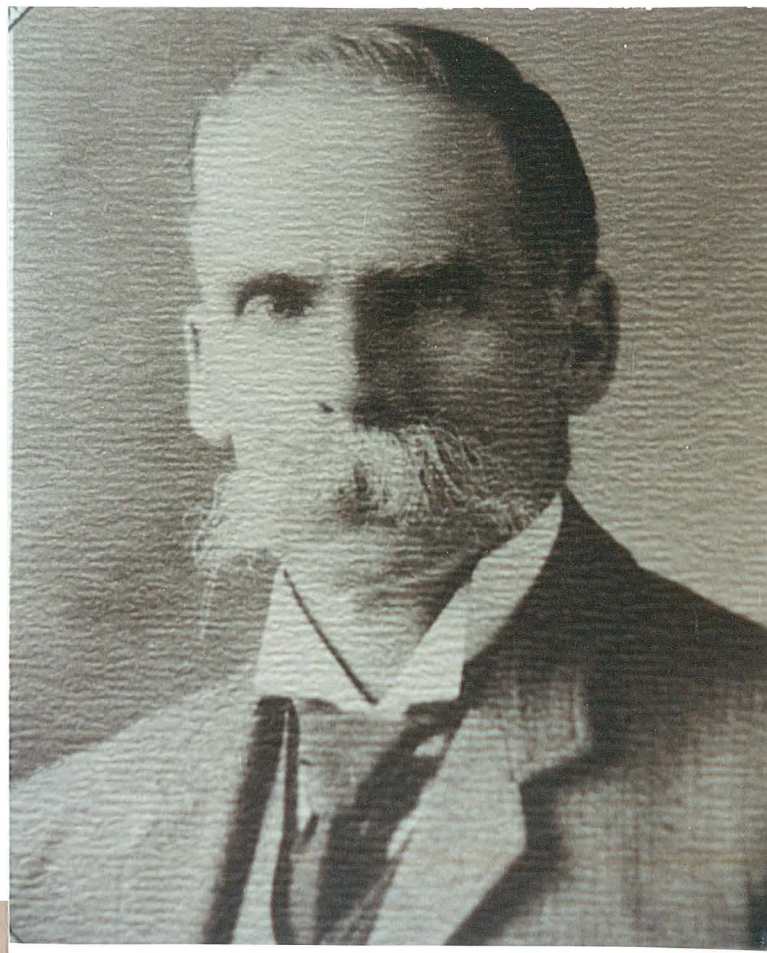
Pasteur undertook early work on Anthrax and on fermentation in pursuit of a theory of bacteria.

Dr. Robert Koch in his laboratory.
c. 1880

Hoyes Lloyd and Percy Taverner at Oak Lake Manitoba. c. 1925.
Lloyd played an important part in the transfer-of-bison-north controversy during the mid-1920s.

Frank Oliver: Editor of the *Edmonton Bulletin*
Alberta Provincial Archives

Later Oliver was Minister of the Interior
in the Liberal Government of Sir Wilfred Laurier



J. Dewey Soper.

An authority on Alberta land and life,
Soper conduced a biological survey of
Elk Island National Park in the 1940s.

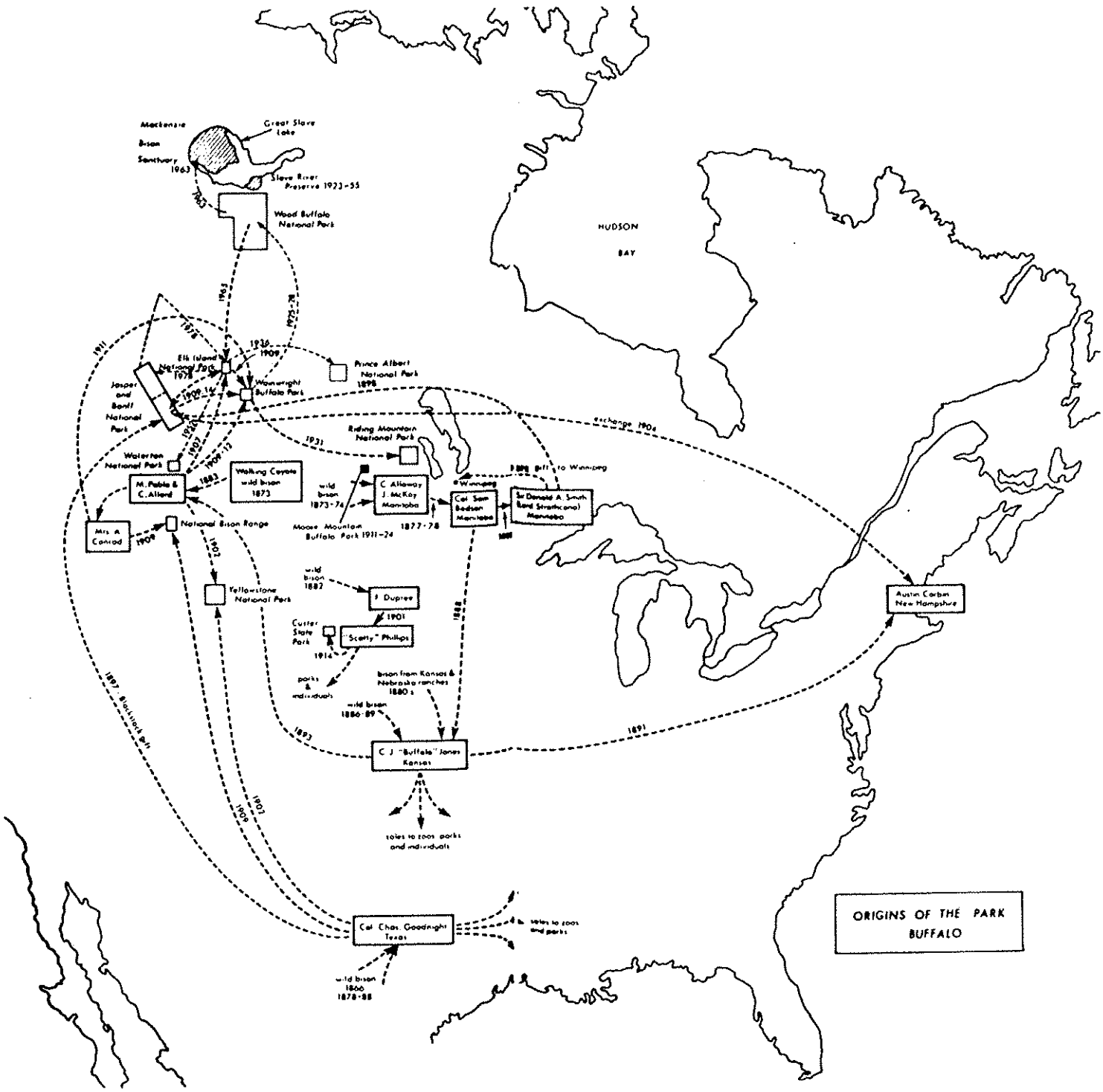
years to round up reactors in the moose and elk populations since it was assumed that they were reactors, rather than hosts, and that symptoms in these animals would disappear if the bison were cured.[57]

A disease more characteristic of domesticated agricultural land, became a potential threat on occasion. In 1914 the so-called 'hoof and mouth disease' was prevelant among some cattle in the vicinity of Elk Island, but following proper procedures to close the park off tightly, the park remained free of it. Another outbreak took place in the 1950s, but this disease was once again avoided. Rabies affected local coyote populations and some were destroyed in order to counteract its spread. Minor incidents of Tuberculosis were noted in 1964 but cleared up with no subsequent outbreaks in the plains bison herd.

Mention has been made already of the 1965 shipment of a small population of Wood Bison to the isolation area south of Highway 16. Following the isolation of a population of the newly discovered Nyrling herd twenty-two head were sent to Elk Island in 1965. These had been considered disease free. Initial testing in 1965 proved negative but in 1966 some of this bison population were showing positive, reacting to eye tests. Re-testing showed several reactors. All females were thus destroyed after calving in both 1968 and again in 1969. Eventally all of the original animals from Wood Buffalo were destroyed, and the surving calves were hand reared by Wardens. The current population of Wood Bison at Elk Island derive from these carefully reared calves, and as of 1985 the park Wood Bison were considered to be TB and Brucellosis free.[58]

Map 14 Movement of Bison Herds and Stocks, 1880-1980

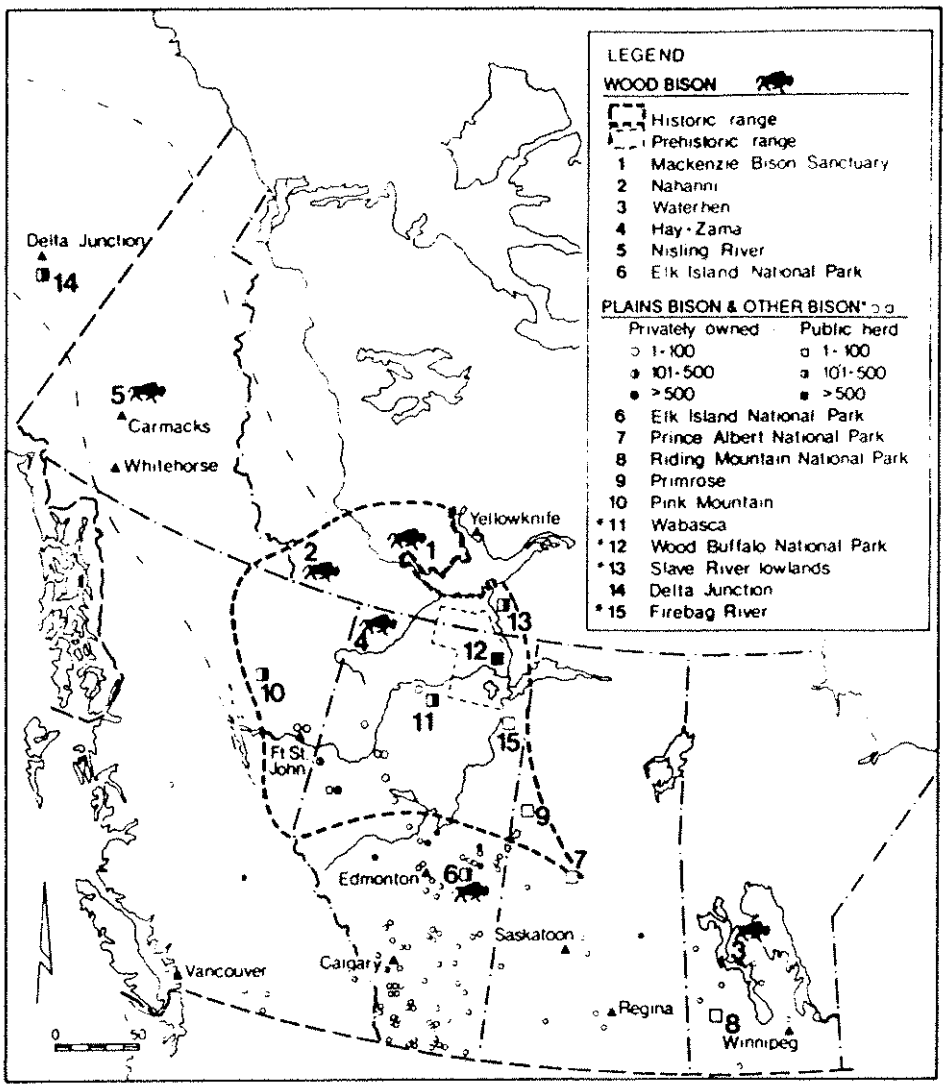
After Scace (1979)



## Map 15

## Distribution of bison in Western and Northern Canada: 1985

Wood Bison Recovery Group/Alberta Heritage Foundation



# Endnotes

1. Cf. C.B. Blyth and R.J. Hudson, *A Plan for the Management of Vegetation and Ungulates, Elk Island National Park.* (Canadian Parks Service. Elk Island National Park. 1987), p. 24

2. Edo Nyland, 'This Dying Watershed' *Alberta Lands, Forests, Parks, Wildlife.* 12 (3), (1969), p.24

3. Edo Nyland 'Miquelon Lake' *Alberta Lands, Forests, Parks, Wildlife* 13(1) (1970), pp. 23-4

4. Robert Scace, *Elk Island National Park: A Cultural History*, ( Ottawa: Parks Canada, 1976), p. 18; Percy Weibe, Natural Resource Conservation Division. Parks Canada, Calgary. Personel communication. 1994

5. Nyland, (1969).

6. Blyth andHudson (1991), p. 85

7. N.A. RG 84 Vol. 481 E. 232. (1908-47) Animals.

8. Blyth and Hudson (1987), pp. 192-3

9. *Elk Island National Park. Resource Description and Analysis.* (Calgary: Canadian Parks Service, Natural Resource Conservation Division. 1989), Fig. 123, p. 320

10. N.A. RG 84 Vol. 1011 E. 42. Farming Operations General. (1963-68), T.L. Ross, Memorandum. Feb. 5, 1968

11. Ibid., R.T. Flannegan, Memorandum, April 22, 1968.

12. Ibid., Lloyd Brooks to R.T. Flanagan, May 9, 1968.

13. Ibid.

14. Blyth and Hudson (1991), pp. 68-71

15. Blyth and Hudson (1991), p. 85

16. N.A. RG 84 Vol. 481 E. 232. (1908-47) Animals. Coxford to Harkin, Aug. 20, 1929.

17. Blyth and Hudson (1991), pp. 113-16

18. N.A. RG 84 Vol. 481 E. 232. (1908-47) Animals. Request from Zoology Society of Scotland for live buffalo. Aug. 20, 1923.

19. Blyth and Hudson (1991), p, 144

20. W.F. Lothian, *A History of Canada's National Parks*. Vol. IV. (Ottawa: Parks Canada, 1981), p. 35

21. Ibid.

22. N.A. R.G. 84. Vol. 482 E. 299 Vol. 9 Slaughter of Animals, 1961-64. Memorandum. H.R. Webster, Superintendent. Elk Island Natonal Park. Nov. 28, 1964.

23. N.A. R.G. 84. Vol. 482 E. 299 Vol. 9 Slaughter of Animals (1961-64). DIANR News Release Jan. 16, 1962.

24. Ibid.

25. Ibid.

26. Ibid. Price list of animal By-Products, as of May 14, 1962

27. N.A. R.G. 84 Vol. 481. File. E.296-1. Pt.1. F.H. Shultz. Astotin Lake Fishery, Elk Island National Park. July 20, 1954; Jean-Paul Cuerrier, Fisheries Management, Astotin Lake. April 10, 1956; and *Ottawa Journal*, May 28, 1936.

28. RG 84 Vol. 481 E. 232. (1908-47) Animals. J.B. Harkin to J.M. Wardle, May 2, 1936.

29. N.A. RG 84 Vol. 481 E. 232. (1908-47). Animals. J.B. Harkin to J.M.Wardle, June 29, 1936.

30. Ibid.

31. Dr. Love was also the official historian for the Alberta Veterinary Medical Association, and he left his own account of his years and approach while at Elk Island National Park. Cf. B.I. Love, *Veterinarians of the North-West Territories and Alberta*. (NP. Alberta Veterinary Medical Association, 1965), Ch. 8

32. Cf. N.A. R.G. 88 Vol. 10 File E.300. Report of Dr. Seymour Hadwen, Ontario Research Foundation, Toronto, on Elk Island Park and Wainwright; and RG 84 Vol. 10 E. 300 A.W.F. Banfield *Report on Wildlife Conditons in Elk Island National Park.* 1946; J.D.Soper, *The Mammals and Birds of Elk Island National Park*, (Edmoton: Department of Resources and Development, 1948).

33. Blyth and Hudson (1987), p. 221 f.

34. Ibid., p. 89 f.

35. Ibid.

36. Ibid.

37. Van Zyll de Jong, (1986), suggested there may have been some plains bison characteristics in the isolation herd. Cf. Blyth and Hudson (1987), p. 89

38. Lewis Thomas, *The Youngest Science : Notes of a Medicine Watcher* (New York: Viking,1983), Ch. 3-4

39. A considerable mythology has developed around the 1925 decision to send diseased plains bison north to the Wood Buffalo National Park. The substance of the myth is that the park managers, either in policy divisions, or on the ground, made a serious error in judgement. The facts would appear to be however, that the scientific advisors of the day, particulary Hoyes Lloyd, Dr. Harrison F. Lewis, and the Cornell University wildlife authority, Francis Harper, were overruled by politicians. See W.F. Lothian (1981), p. 34

40. Rene Dubos *Louis Pasteur: Free Lance of Science.* (New York: De Capo Press, 1960), p. 233

41. Ibid. p. 247

42. Rene Dubos, 'Second Thoughts on the Germ Theory' in: Paul Shepard and Daniel McKinley, eds. *The Subversive Science: Essays Toward and Ecology of Man* (Boston: Houghton Mifflin, 1969), p. 228

43. As late as 1901, Koch was of the opinion that human tuberculosis could not be transmitted to the lower animals. The Russian Constantin Blumberg, had contended otherwise several years earlier, and was proved correct. Cf. Leon Z. Saunders, *Veterinary Pathology in Russia, 1860-1930.* (Ithaca: Cornell Universityh Press, 1980), pp. 129-30

44. Dubos (1960), p. 228

45. A text representative of the state of the art during the World War I period is N.S.Mayo, *Diseases of Animals* (New York: MacMillan, 1917).

46. Stacy V. Tessaro. 'Bovine Tuberculosis and Brucellosis in Animals, Including Man' in *Buffalo* (1992), pp. 208-9

47. On the politics of the transfer see Lothian, (1981), p. 34, and C. Gates, et al. 'Wood Buffalo at the Crossroads' in John Foster et al eds. *Buffalo.* (Edmonton: University of Alberta Press, 1992), pp. 139-65

48. Scace (1976), p. 120 and cf. W.A. Fuller, *The Biology and Management of the Bison of Wood Buffalo National Park.* Wildlife Management Bulletin. Series 1. No. 16 (Ottawa: 1966)

49. B.I. Love (1965), p. 80

50. Ibid.,

51. Blyth and Hudson (1987), p. 165

52. Love (1965), p. 80

53. Ibid.

54. Blyth and Hudson (1987), pp. 164-5;

55. Ibid.,p. 166 and cf. A.H. Corner and R. Connell ' Brucellosis in bison, elk and moose in Elk Island National Park, Alberta, Canada' *Canadian Journal of Comparative Medicine* 22 (1): (1957), 9-20

56. Cf. L.P.E. Choquette, et al. 'Parasites and Diseases of Bison in Canada IV. Serologic Survey for Brucellosis in Bison in Northern Canada.' *Journal of Wildlife Diseases* 14 (July, 1978), 329-31

57. Tessaro (1992), p. 209

58. Blyth and Hudson (1987), pp. 167-8

# Chapter 5

## Parks and People at Elk Island: 1930-1970

### 5.1 Recreational Development at Elk Island: 1930-1945

As at many of Canada's National Parks, the onset of the great depression after 1929 curtailed the general use and demand for park facilities. Ironically, it was in this period that much park infrastructure was improved and upgraded through unemployment relief work projects. At Elk Island, a considerable amount of road improvement was carried out between 1931 and 1935.[1] It was through such labour that work on the golf course was started in the same years, responding to local expressions of interest which had been voiced since the early 1920s. Park engineer R. Atkinson directed the initial construction of the fairways, but by 1935 they were not complete and it remained for Superintendent B.I. Love to see the work through after 1937.[2]

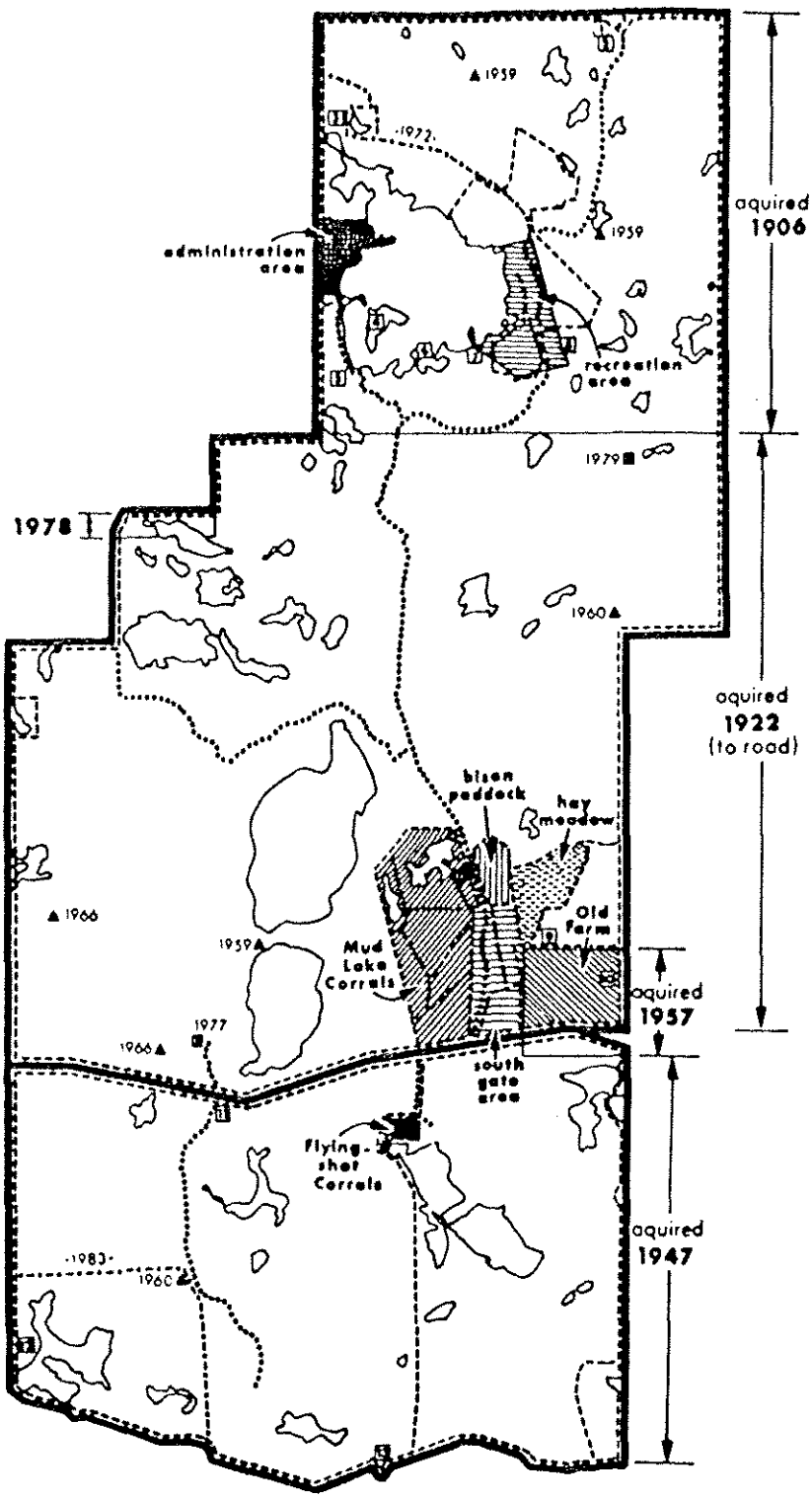
Other improvements were made around what had become the main recreational complex at Astotin Lake, particulary the Sandy Beach area. These improvements included camping facilities, picnic shelters, and fireplaces. In 1935 an institutional camp known as Agape was allowed to establish on the south shore of Astotin Lake. During the 1940s other improvements and additions were made, including two bungalow camps, a baseball diamond, a dance hall, band shell, tennis courts and a service station.[3] These were also concentrated in the Sandy Beach area. (Map 13) Many of the concessions found it difficult to survive on the limited seasonal market. Lothian has observed about this period that:[4]

> Patronage enjoyed by these concessions later proved disappointing and was confined mainly to weekends. Finally, after years of unprofitable operations, all but two concessions with the park went out of business either volunarily or following cancellation of leases because of changes in park policy.

A policy of relative inertia has often been followed by park administrators with respect to external development proposals, and for sound reasons. At Elk Island, where at least partially-conflicting mandates have been in place from the

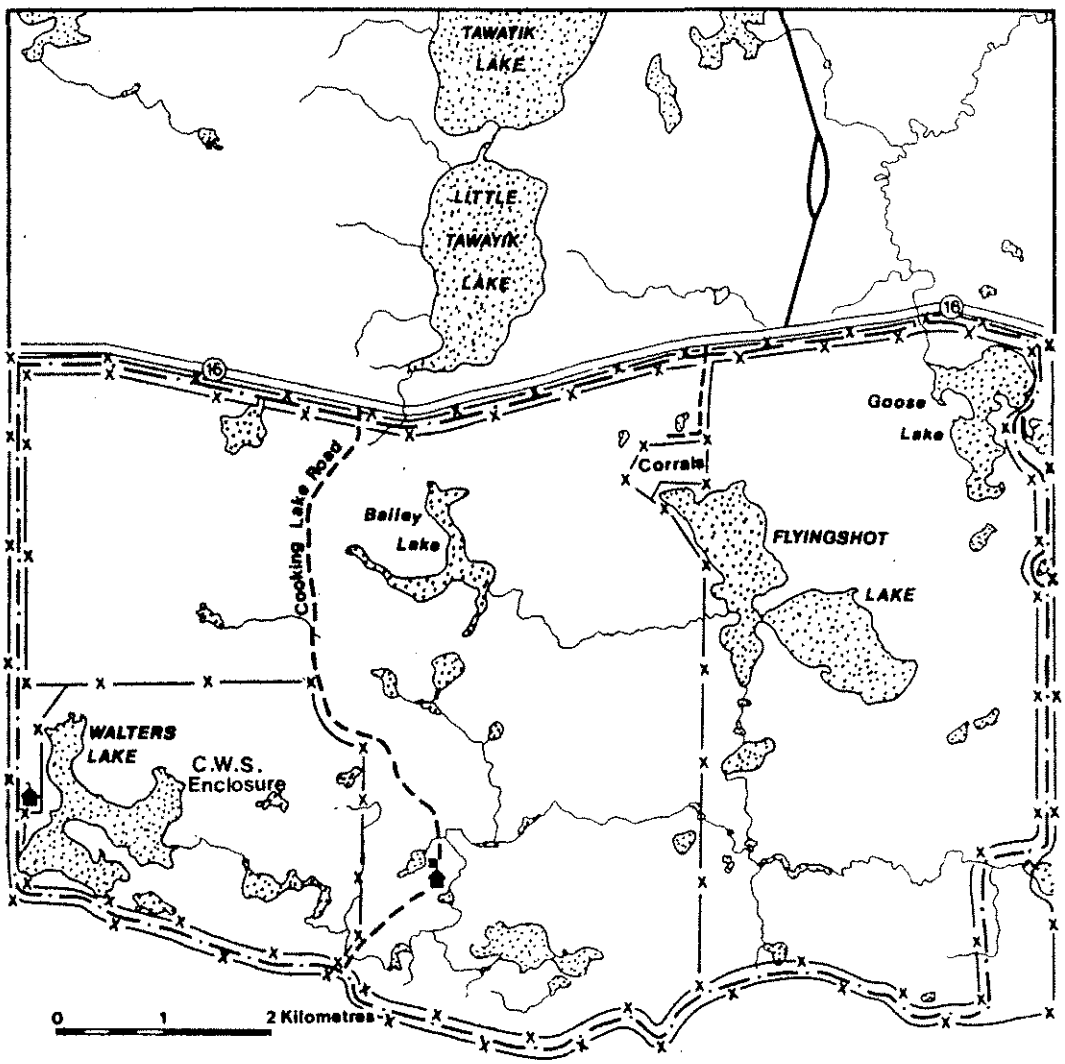
Map 16 Elk Island National Park: Land Use: 1906-1983

After Blyth et al. (1983) Parks Canada

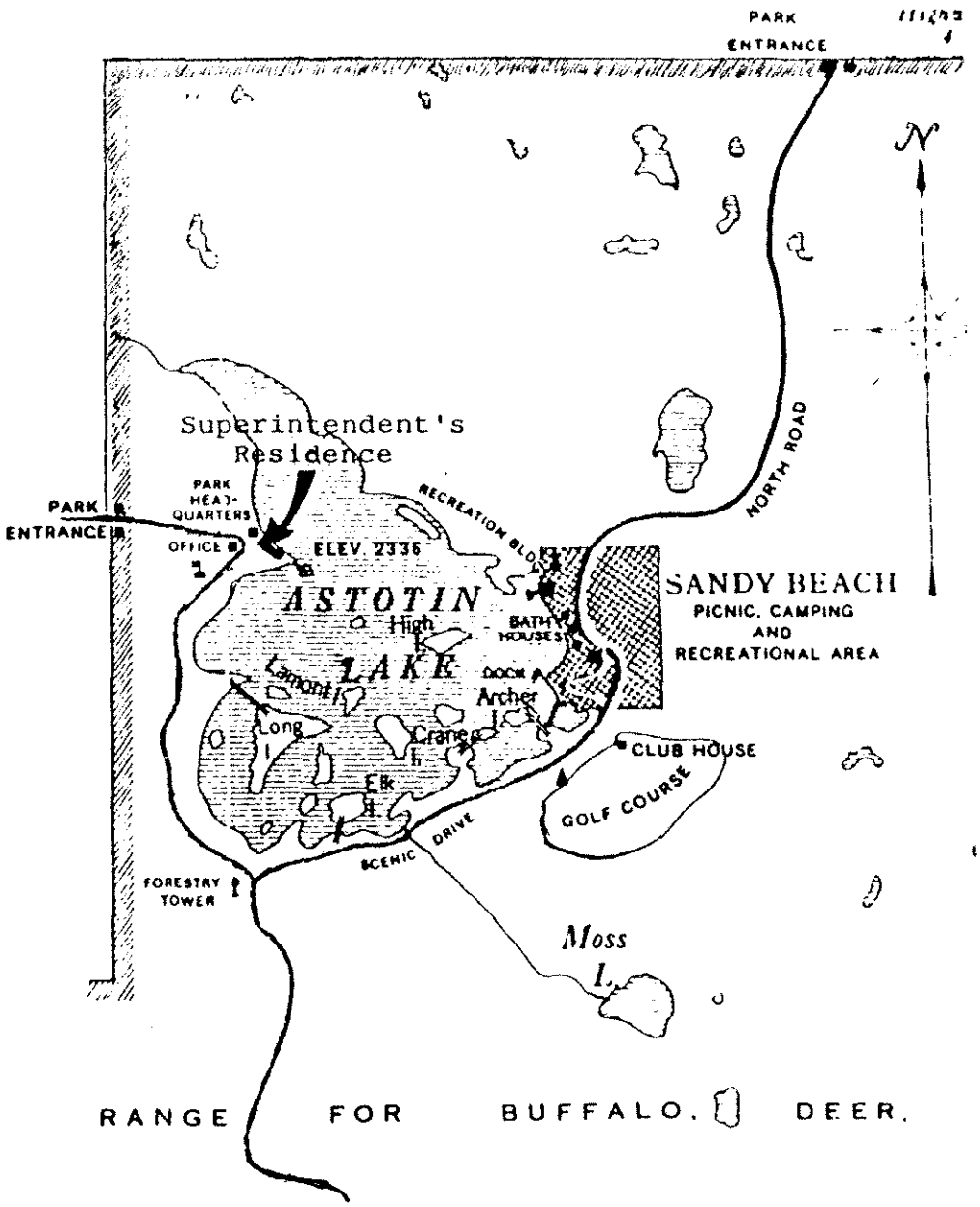


Map 17 Wood Bison area, Elk Island National Park. 1983

After Blyth (1983)



Map 18 Recreational Areas, Elk Island National Park.
Astotin Lake area. Late 1940s



very beginning, superintendents had to wend a cautious policy course. Scace has observed about the long tenure of the first superintendent and his approach to development proposals that: 'During his tenure, Superintendent Coxford seemingly resolved the problem by submitting estimates to Ottawa that were exorbitant enough to ensure rejection.'[5] As a result the development zones at Elk Island remained quite limited in geographic scope in the pre-1950 period, consisting of a basic road network, the administration area at the northwest, end, the farm operations, the Sandy Beach recreation area, ungulate treatment corrals, and a net-work of warden cabins.[6]

## 5.2 Post-War Recovery and Changing Visitor Demand: 1946-1970

Despite unprofitability in the concession sector, the park responded to visitor demands for certain types of facility development in the years between 1948 and 1968, but as early as 1954 the National Parks Branch demonstrated a desire to move very cautiously with respect to in-park developments, as it had during the late 1920s and 1930s. Noting a recent departmental review of outside applications one park official wrote to the superintendent that 'in view of the character of Elk Island National Park, no further applications for concessions, leases or licences covering use of public land will be considered, other than possible renewals.'[7]

Construction of the Sunset Cabins was authorized in 1948 along with a tea room. These were sold to the park in 1951 which then leased them out until 1968, when their deteriorated condition precluded further effective use.[8] A.S. Birch had built 24 cabins between 1948 and 1950 but surrendered his licence in 1960, having advised earlier of 'the difficulty of conducting a remunerative venture in a park in which visitors came for a day's outing or a picnic and did not stay overnight.'[9] Other initiatives which came in the post-war years included public camping at Camp Agape, tent rental operations, a hostel built in 1953 by the Canadian Youth Hostel Association, refreshment booths, the Wapiti Inn, and boating concessionaires. Many of the agreements were cancelled between 1960 and 1970 owing either to lack of productivity or responses by the National Park to changing policy directions.[10] The late 1960s saw the emergence of formal park policy direction at the National level, the first important discussion since the passage of the 1930 National Parks Act.[11] It is in this context that Robert Scace noted about the scale of past development at Elk Island that:[12]

> Indeed the arrangement was tolerable until after the Second World War when a more sophisticated and professional view of the role of national parks as islands of relatively intact ecosystems combined with intensified recreatonal use of these same areas to greatly complicate the administrative, professional and lay perception of desirable land use and management strategies.

If parks officials moved cautiously with respect to commercial development after World War II, they were nevertheless open to proposals which clearly contained a wider benefit or spoke of a more generalized concern with the park. An early form of co-operating association had come into being as early as 1934 with the foundation of the Elk Island National Park Association.[13] Later correspondence between interested local citizens and their political representatives had succeeded in the formation of a local committee and in 1949 a gathering was held 'for the purpose of organizing a committee which would help plan certain improvements within the Elk Island National Park.'[14]

A number of ideas were proposed by this committee, largely of a museological nature. The central ideas involved developing a series of buildings for purposes of illustrating various themes of the regional history including the fur trade and agricultural settlement.[15] The main force behind this committee was Dr. A.E.Archer, a well-respected pioneer doctor in the region who had been one of the first to hold cottage property along the northwestern shore of Astotin Lake.[16] The death of Dr. Archer in 1949, and a general limitation on funding, curtailed the activities of the committee but the main achievement of this period was the erection and furnishing of a replica pioneer Ukrainian home on the west side of Astotin Lake near Sandy Beach. This suggestion had been made first in 1947 by Dr. Archer, who felt that the 'Galacian pioneers of the district deserved to be honoured with a monument of some kind.'[17] This building is still in place and is now accompanied by a commemorative marker put in place in 1973 by the Ukainian Pioneers Association of Alberta.[18] While national park policy with respect to historic sites has since evolved in different directions from those favouring reconstruction, the work of this committee was important in its attempt to understand the park in its historic landscape setting and in recognizing the park as a special place in which heritage ideas should dominate. Appropriately, in 1949 the Historic Sites and Monuments Board approved the erection of an historic marker in the Sandy Beach area of Astotin Lake commemorating the conservation of the plains bison.

Town of Lamont  North of Elk Island National Park  c. 1992

Ukrainian Pioneer Dwelling, Reconstruction.  Sandy Beach Area. Elk Island,

Representative of those early post-war years when dollars were still in short supply, but a good time was nevertheless sought, were the activities provided at the Band Shell at Sandy Beach. Park officials worked cooperatively with the National Film Board and the Cultural Activities Branch of the Province of Alberta to sponsor regular Sunday afternoon concerts in the summer. Regular programs were on-going througout the 1950s and 1960s but in 1972 the Band Shell was declared surplus and turned over to the developing Ukrainian Cultural Heritage Village.[19]

By 1949 a demand for increased recreational facilities was also being experienced as post-war recovery started to make its effect in terms of available consumer disposable income and vacation time. In a report prepared for the local M.P. for Vegreville in the autumn of 1949, park officials remarked on the rapidly increasing demand for services, and summarised past achievements designed to cope with this demand. It was stated that as of September 1, 1949, 122,745 persons had entered the park, representing an increase of more than 63,000 from the previous year. Significant developments for campers and day-users had been put in place around Astotin Lake in response.[20] This was but the beginning of on-going upgrading of this recreation area which culminated in a much expanded site development plan prepared in 1962 by *Project Planning Associates* of Toronto.[21] Guided by the plan, many of the old lease structures, long-considered unsightly by some, were taken down and replaced by new pubic facilities.

It was to be some time yet before a serious examination of the role of Elk Island as a large ungulate sanctuary would take place. A fundamental ambiguity with respect to its identity had marked Elk Island from the beginning, and the emergence of the Wood Bison issue in the mid-1960s served to compound the dilemma.[22] The notion that tourists should be able to 'see' such animals was a longstanding one, as it was in many other National Parks.[23] The need to reconcile the game sanctuary idea with visitor beliefs that they were in some kind of 'zoo' was a more or less constant policy question. In earlier years however, when the forest was less dense, and travel more leisurly, the visitor would normally have his wishes satisfied. This was not the case in the late1950s however. Fire suppression had aided in bringing on a forest in which the animals were often well hidden. A special drive-in paddock of 95 acres was fenced off in 1963 and located close to the main through-park road.[24]

# Endnotes

1. Robert C. Scace, *Elk Island Natonal Park: A Cultural History* (Calgary: Scace and Associates, 1976), p. 125

2. Ibid., p. 127; and Cf. Cathy Benson, in *The Triangle* (Parks Canada. 1985)

3. *Elk Island National Park. Management Plan.* (Calgary: Parks Canada, 1978), p. 11; and Scace (1976), Appendix B. Visitor Facilities and Related Development at Elk Island National Park, 1940 to Present.

4. W.F. Lothian, *A History of the National Parks* Vol. 1 (Ottawa: Parks Canada, 1976), p. 52

5. Scace (1976), p. 127

6. N.A. RG 84 Vol. 282. Inventory of Buildings 1938-42. Elk Island National Park Section; and generally RG 84 Vol 1005 File E.16 1919-1928. Pt. 3 and. Pt 2 (1928-1941). Lands Outside the Townsite.

7. N.A. RG 84 Vol. 1005 E.16 (1941-55) Pt I, J.R.B. Coleman to Superintendent, Elk Island National Park, Sept 14, 1954.

8. Scace (1976), p. 148

9. Ibid.,p. 149

10. Ibid., pp. 149-50

11. *National Parks Policy* (Ottawa: 1967)

12. Scace (1976), p. 109

13. N.A. RG 84 VOl. 1005 E. 16. Pt 2 (1928-1941), R.S. Gibson to J.B. Harkin. Jan. 11, 1934.

14. N.A. RG 84 Vol. 1020 E. 318. (Museum 1947-57). Minutes of a Meeting, Lamont, April 18, 1949 . Present at this meeting were Dr. Archer, John Decore (Vagreville), Wm. N. Pidruchney, (Vegreville); Fred Magera, (Willingdon); Peter Svarich, (Vegreville); M.T. Nemirsky,( Lamont): Dr B.I. Love,( Elk Island National Park).

15. Ibid.

16. N.A. RG 84 Vol. 1005 E-16. (1919-28), Pt. 3. Engineering Map. Nov. 17, 1928; and obituary notice, *Edmonton Journal,* Wed. June 2, 1949.

17. Scace (1976), p. 152

18. Ibid., p. 154; and RG 84 Vol. 482 File E. 326. B.I. Love to B.I.M. Strong, Nov. 12, 1957.

19. Scace (1976), p. 152

20. N.A. RG 84 Vol. 479 E-28 Pt.1 Elk Island National Park. Sept. 24, 1949.

21. N.A. RG 84 Vol. 482. E. 316. Vol. 3. ( Recreation and Playgrounds). H.R. Webster to Chief, Feb. 7,1962.

22. John S. Tener, Deputy Director, Natural and Historic Resources Branch. Canadian Wildlife Service, to J.R.B. Coleman, National Parks Branch, Oct. 25, 1966.(Documents on File, Parks Canada, Calgary)

23. N.A. RG 84 Vol. 481 E. 232. (1908-47) (Animals ), General Correspondence, Sept. 1924.

24. Ibid., and N.A. RG 84 Vol. 480. E-230. Pt. 2. 'Display Buffalo Herd, Elk Island National Park' Jan. 28, 1963

# Chapter Six

## Dissolving Park Boundaries: Wildlife Management in the Urban World of Elk Island National Park: 1970-1994

### 6.1 Changing Views of Elk Island Land and Life

In a scholarly report prepared on the history and management of vegetation and wildlife at Elk Island National Park, Charles Blyth and R.J. Hudson noted the long-term effects of a policy which, from the beginnings of park establishment, tended to favour the conservation of large game animals. They observed that 'over the entire time period from park establishment to 1962, significant succession to spruce forest had not occurred except on the islands of Astotin Lake.'[1] Another student of the landscape and its apparent stability, suggested that the bison were the main factor in reducing the natural succession from aspen to spruce for bison tended to 'seek and destroy' young planted spruce.[2] The only part of the park which has, in recent times, seen significant succession to spruce forest was the isolated Astotin Island.[3]

In 1970, the National Parks Service started to prepare a management plan for Elk Island National Park. By way of preparation air photos of the contemporary vegetation cover were assembled. These photos were able to assist in the interpretation of the ungulate enclosure plots which Holsworth had put in place in 1960 and which provided a measure on the effect on vegetation of browsing ungulates. Resulting map work provided detail on the age of the forest and confirmed the trend towards a maturing aspen forest uncomplicated by natural spruce succession.[4] As of the 1970s then, a broad generalization with respect to the ecosystem would have contended that in the previous sixty years forces had been at work favouring a select number of species, increased uniformity in the vegetation regime, and a severe decline in aquatic species owing to a lowering of the water-table and restricted flows through the water courses.

Official attitudes were clearly changing in these years. In 1967 a decision was taken to suspend systematic production of feed crops in the park, thus bringing to a close a longstanding management practice. Despite this cessation of haying activities the old hay meadows have remained as a place of forage for the grazing animals in the park. They are normally fenced off in the summer and opened up each winter for grazing by the main bison herd and some elk.[5]

This decision reflected an interest, expressed on occasion over the years, in restoring Elk Island National Park towards something of its original character as a component of the Aspen Parkland. Not all were agreed on just what the ideal vegetative character of Elk Island actually was, but the debate in the 1960s and 1970s over this issue was a healthy and vigorous one, and most were agreed that the longstanding policies favouring large ungulates and of systematic fire suppression had definitely altered normal succession patterns.[6]

A debate concerning the ideal vegetational character of Elk Island commenced shortly after the retirement of the long-time superintendent B.I. Love in 1959. Unlike the first half-century of park administration, when only two men had held sway, the next eighteen years saw no less than six superintendents, each attempting to alter policy or prepare a park management plan.[7]

The first was H.R. Webster who showed a keen interest in gaining accurate estimates of the contemporary ungulate population and utilizing academic research in the interests of policy development. Webster encouraged the first aerial survey of animal populations by D.R. Flook in 1959. A recent M.Sc. thesis, completed by W.N. Holsworth, became the subject of some interpretive confusion by Webster and by Canadian Wildlife Service Chief Mammalogist W.E. Stevens. The latter took the view that Holsworth's work indicated that the ungulates were tending to reduce the plant variety of the park landscape. In a communication to Webster he suggested that elk and moose had the ability, in the long term, to prevent new deciduous growth and that this might 'in due course' reduce the northern areas of the park to a meadow.[8] Webster interpreted the scientific report as bringing into question the very idea that Elk Island was a suitable place for a bison sanctuary. In his opinion, the park, as much of the Beaver Hills of old, was most naturally a spruce forest which had been home only to moose and some elk. Any bison in the area were likely only passing through. The present vegetation was a result of man-caused fires from the homestead period, while subsequent animal-use had prevented regeneration of the natural spruce forest. These facts could explain the 'mistaken premise' which had 'guided the general philosophy of the park for a number of years' and vestiges of which 'still appears on interpretive signs in the park today.'[9]

Astotin Lake. 1992.

Spruce Succession on Islands in Astotin Lake c.1992

Holsworth and others were, in fact, less concerned about the ideal character of Elk Island as bison range, and more with the question of carrying capacity. Holsworth, by way of response, contended that in much of the park the grass and shrub meadows had been maintained where forest should have been. In his opinion this was due to over-browsing. Severe overgrazing in the past 20 years had modified the physiognomy and floral composition of the park, and in some areas agricultural species had flourished by one means or another. He recommended that bison be held at 400, Elk at 400, and Moose at 100. This would, he felt, lead to a certain revitalization of shrub and tree growth and to a higher percentage of rabbits and deer.[10] The parties to this 1960s debate agreed to disagree. Webster contended that Elk Island was less than ideal bison landscape and that its small size could only increase its capacity to become a harbour of disease. Canadian Wildlife Service staff on the other hand, tended to take the view that, whatever the limitations at Elk Island, it played an important role in the larger scheme of bison conservation sanctuaries. Both parties filed differing recommendations as to the proper course for future management.[11] Both parties filed differing reports as to the proper course for future management.[12]

Webster's report discussed range condition and the general conclusion he reached was that present browse and grazing levels were much too high and that they should be lowered in order to allow a spruce forest to properly develop. His recommendations were as follows:[13]

1. That more serious consideration be given to establishing plains bison on more typical bison range somewhere on the Canadian prairies.

2. That a heavy reduction of all large herbivores be carried out to decrease the pressure on the range; (main park: 300 bison; 400 elk, 150 moose; Isolation area - 200 bison, 50 elk, 50 moose.)

3. That ear tagging be implemented as a method of recording Brucellosis vaccination in bison.

4. That consideration be given to the future status of the Isolation area as an integral part of the park or for other purposes such as a research area for the CWS

5. That the services of a biologist with training and experience in range work be made available. (for general advice on animal welfare, etc)

Webster was quite successful with his population recommendations. These were accepted and a slaughter that winter reduced the ungulate density by over 45% bringing it to its lowest since the 1920s.[14]

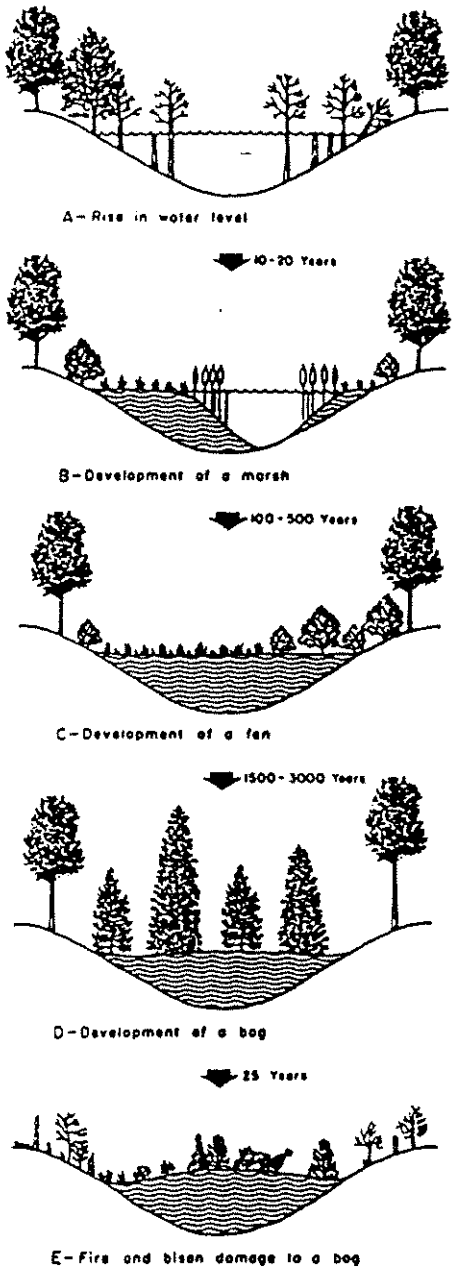
Superintendent Webster recognized bison management and it scope to be a main question for future management. In keeping with the developing breadth of ecological thought, he also placed biological considerations on the table: what should the relationship with other large ungulates be? In the absence of natural controls and feeding programmes, how were numbers to be controlled? These were important questions with which students of 'carrying capacity' and wildlife management were then struggling.[15] An early response to this new thinking was the 1960 decision by the Canadian Wildlife Service to conduct more aerial surveys and to consider the possibilities in re-introducing trumpeter swans to Elk Island.[16]

Despite recommendations received from several areas, or perhaps because of them, no long term policy was approved. The Superintendent continued to give the bison priority, if for no other reason than a recurrent need to do so, and to consult with the CWS. In the early 1960s Webster implemented a policy tending to favour a ratio of male bison to female approaching 2:1.[17]

The question of forest character was not totally resolved. Holsworth had attempted to breath an historical factor into the debate by raising the ancient role of fire in the Beaver Hills. His main point was that although the climax vegetation produced a white spruce forest, such had probably never been maintained over long periods or large areas due to frequent natural fires.[18] The question of whether the Elk Island area was or was not a classic bison landscape was, for Holsworth, something of a red-herring. Webster did have his way in a partial sense for during his tenure 'spruce tree planting in most of the highly visible areas of the park was undertaken.' This was done both 'for aesthetic purposes' and as a perceived 'compensation for spruce regeneration that the large ungulates had retarded.'[19] During his superintendency the numbers of animals in the park never came close to approaching their historic highs in the 1920s and 1930s.[20] By a certain irony however, another animal had started to regain its old status, perhaps by virtue of a certain stabilization of water bodies and the regeneration of the aspen forest. The namesake animal of this region, the beaver, had made a remarkable recovery, with much attendant flooding, necessitating their control on occasion by shooting. The historic ideal character of the Beaver Hills region had begun to reassert itself.[21]

Figure 1 a.

Aspen-Parkland Succession: Lowland Succession, Elk Island National Park
After Hardy and Associates, 1986



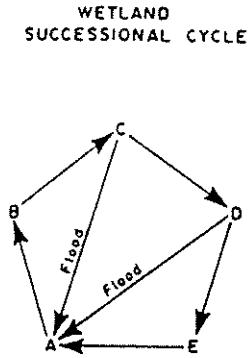
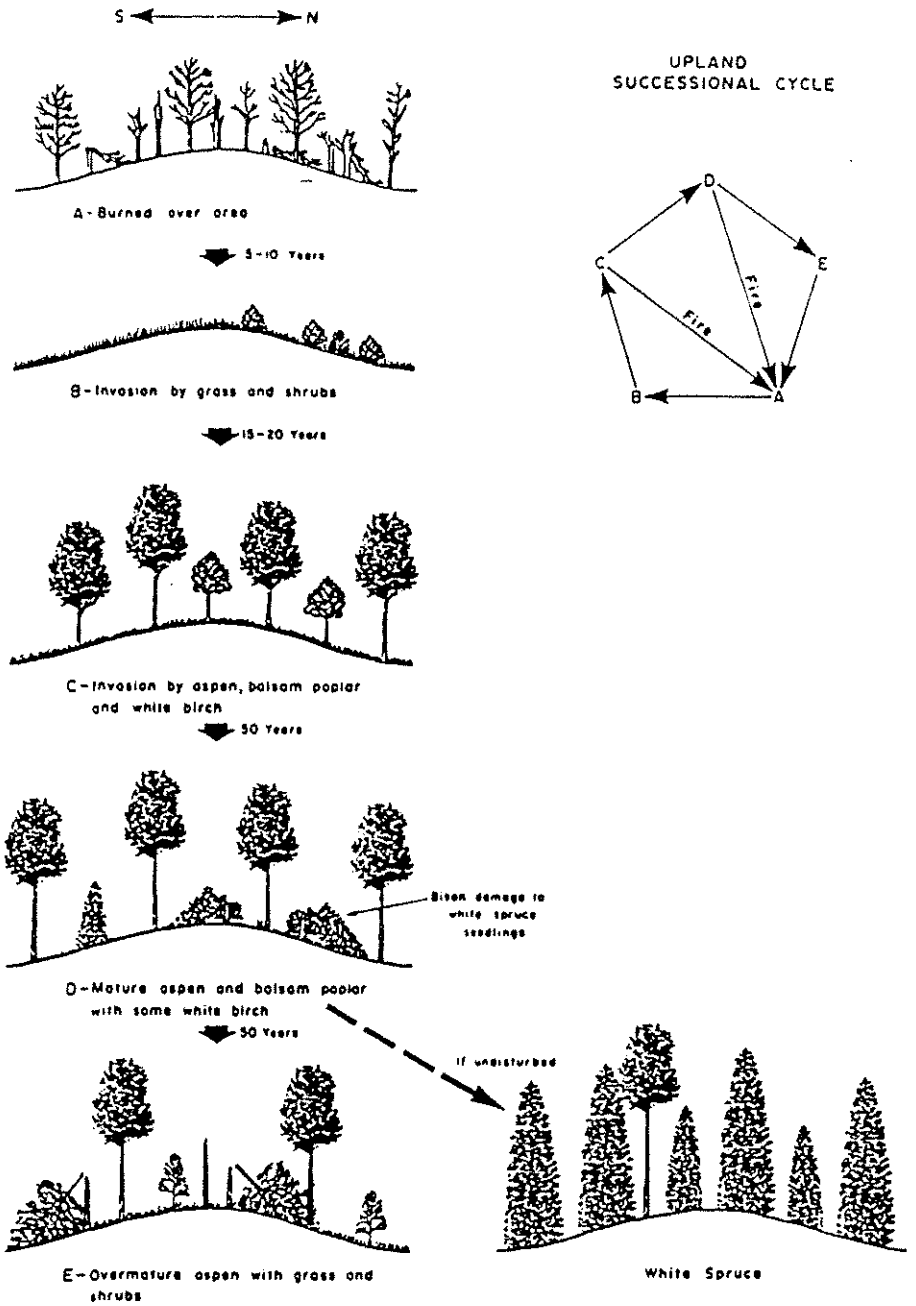



Figure 1 b.

Aspen-Parkland Succession: Upland Succession, Elk Island National Park
After Hardy and Associates, 1986



In 1965 G.H.W. Ashley replaced Webster as superintendent. The singular event of his tenure has already been discussed, the introduction of twenty-four head of Wood Bison from Wood Buffalo National Park into a newly constructed Canadian Wildlife Service isolation area in the southwestern portion of the park. In 1967, Ashley was replaced by Mr. T. Ross, and he was succeeded in 1969 by a number of superintendents who served relatively short tenures until 1976 when Fred Bamber was appointed. The identity of Elk Island had now become recognized as a curious amalgam of game ranch, zoo, recreation centre, and nature area. In order to sort out these conflicts a 1978 Elk Island National Park Management Plan was approved.[22] It was a comprehensive document and was timed to coincide with the adoption of new national parks policies.[23] The objectives clearly indicated that Elk Island Park was to take on a new identity much more in keeping with broad ecosystem values and theory, and in which species-specific interests would be down played.[24] The most radical suggestion along these lines was undoubtedly that of Superintendent Don MacMillan who in 1972 suggested that the plains bison herd should be removed entirely and be replaced by a small display herd.[25]

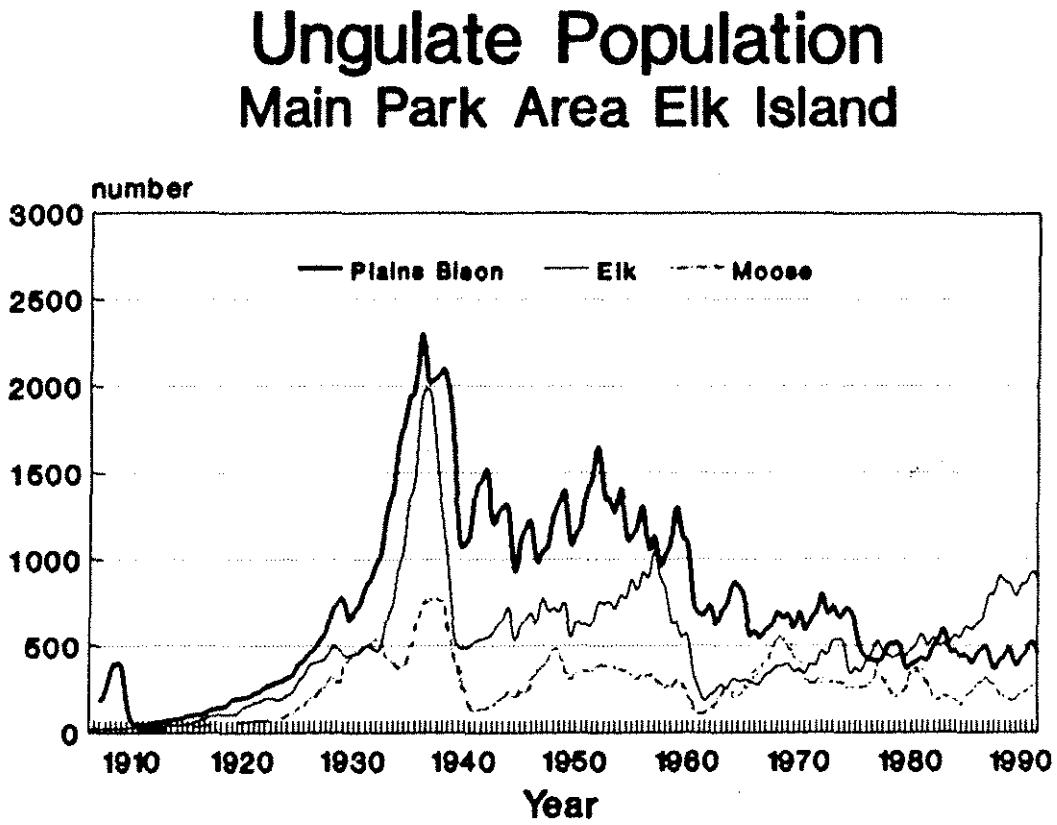
## 6.2 Park Planning and Management at Elk Island National Park: 1970-1990

In the years between 1945 and 1970 a greater role had been assigned by management to the results of systematic scientific study and inventory. No firm set of management guidelines had ever been achieved however. In the 1970s park planning came to the fore, as it did in many national parks in the system. The identity of Elk Island had become a curious amalgam of game ranch, zoo, recreation centre, and nature area. Ashley was succeeded in 1969 by a number of superintendents all of whom served relatively short tenures until 1976 when Fred Bamber was appointed. Debates about the cost-effectiveness of trapping and shooting excess animals continued, producing a policy of humane trapping and removal.[26] The most radical suggestion for reduction of the park herds came from Superintendent Don MacMillan who in 1972 suggested that the plains bison herd should be removed entirely and be replaced by a small display herd.[27] While this suggestion was not accepted it was representative of the new thinking which characterised Elk Island Park in the 1970s when a number of important studies were undertaken seeking to define the optimum carrying capacity for the park and better understand the general relationships between the ungulate populations.[28]

Figure 2

Ungulate Increases and Decreases: Elk Island National Park

Parks Canada. Natural Resource Conservation



Debates and disagreements on some of these important questions had prevented superintendents in the 1960s and 1970s from gaining agreement on the substance of a park management plan. In the early 1970s a draft Provisional Master Plan had been prepared and by 1978 a formal Elk Island National Park Management Plan was approved.[29] The 1978 plan was comprehensive and was timed to coincide with new national parks policies.[30] The park objectives outlined in the plan clearly indicated that Elk Island Park was to take on a new identity much more in keeping with broad ecosystem values and theory. In summary those objectives stated:[31]

1. To preserve the natural features and processes occurring in the park as representations of the Beaver Hills/Cooking Lake Moraine which are significant in the Canadian context as a vegetation island or outlier of the Mixed wood Boreal Forest

2. To manage the natural features and processes only where such management is necessary in order to compensate for man-induced changes, or to protect man-made facilities.

3. To provide opportunities for participation in outdoor recreational activities where such opportunities are compatible with the preservation of the park.

4. To provide an integrated communications program which will present to the public:

i) the natural features and processes occurring in the Park.

ii) the significance of the above to the Beaver Hills/Cooking Lake Moraine in the context of the National Park System.

iii) the human activities which had or were taking place in the Park or the surrounding areas and the impact of these activities.

iv) the management programs necessary to compensate for these activities.

v) recreational opportunities available n the park, and

vi) limitations governing use of the Park related to public safety and resource protection.

These objectives provided the management guidelines for the next fifteen years at Elk Island, and are the essential reference against which the 1990 park planning initiative may be measured.

## 6.3 Historical Retrospect

The effort to bring back from the edge of extinction certain large ungulate species since 1900 is an important chapter in the history of North American conservation, one that has not yet been closed. The effort must be considered an interim success with respect to Bison, Elk and Pronghorn Antelope. These species have re-attained substantial populations, the latter two on open terrain as well as in strict reserves. With respect to the bison, the achievement was realized in the midst of considerable policy ambiguity.

Conflicts were essentially of three orders. First, those which grew out of the initial designation of Elk Island as a defacto game preserve followed by its fairly rapid inclusion within a developing system of National Parks. This inclusion meant that Elk Island, as a landscape, was administered with a view to the varied mandates outlined in park legislation including the mandate to provide certain recreational opportunities. Elk Island was no exception in this respect. Fifty years ago combining mandates was not viewed as particularly anomalous, and indeed was a continuation of that versatile resource policy of the late nineteenth century - 'multiple use.' Consider the 1940-words of the official National Park Historian W.F. Lothian in a popular article on Elk Island:

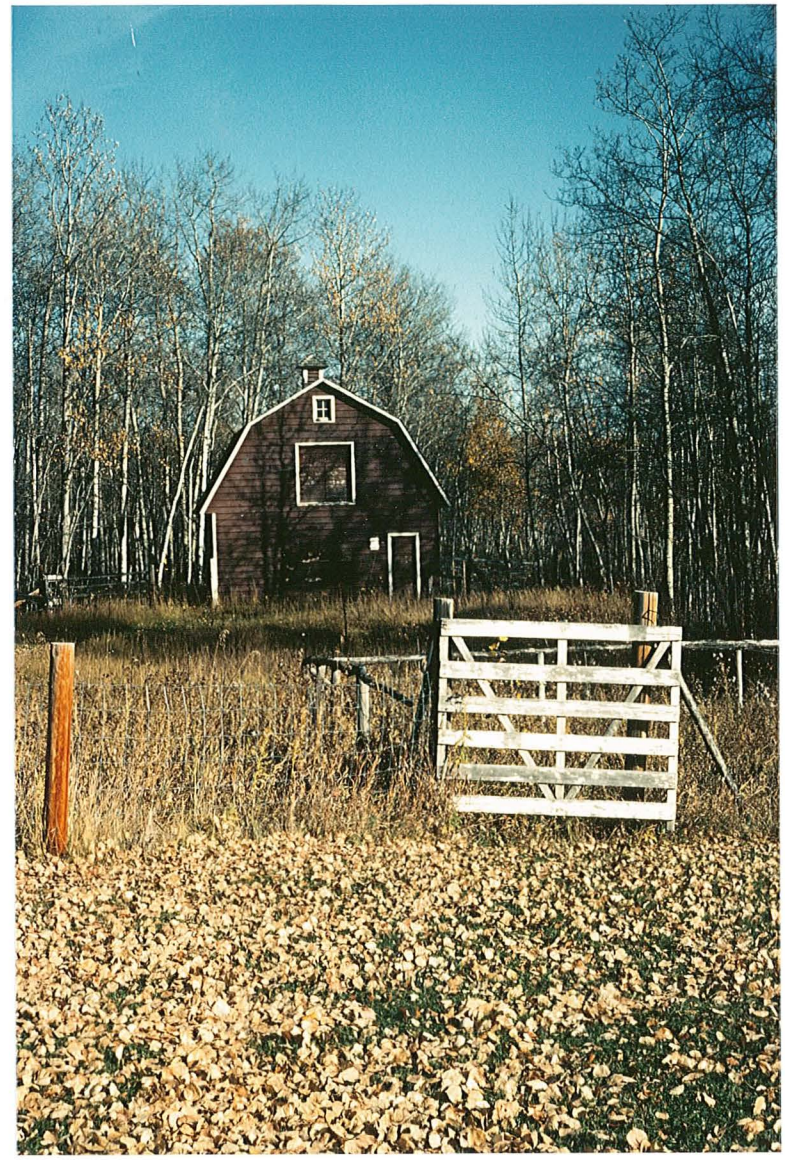
> ..Elk Island National Park, for more than a quarter of a century has been fulfilling a dual purpose. As a sanctuary for wild-life it has not only helped to save for posterity the buffalo...but it is preserving in their natural surroundings other interesting big-game species and wild birds. As a public resort it is also providing opportunities for outdoor life and recreation amid the unspoiled beauties of a beneficent Nature...

The quieter and less-congested world which Lothian was describing in 1940 has long-since vanished. Well before the 1990s, the reality of a large urban neighbour in the form of the City of Edmonton started to lead park managers towards an interest in evaluating the ideal recreational role of the park in a regional system of supply.

A second source of conflict grew out of the rapid isolation of Elk Island National Park, as a special landscape, from the agricultural lands surrounding it. Owing to the manner in which ecosystems operate, this isolation has only been partial, and park managers have traditionally had to pay close attention to the agricultural activities and interests of neighbours. Indeed for many years, portions of the park were designated as agricultural lands in their own right.. This trend was one which worked against the fundamental lessons of wildlife ecology which seek to reconcile animal numbers with an ideal habitat range. At Elk Island, the animals regularly outstripped their habitat rendering the conditions more artificial and zoo-like than natural.

A third source of conflict, and closely related to the conditions imposed by the second, may be said to have come about as a natural side effect of the rapid growth in scientific thinking about animal ecology and disease control which commenced in the 1880s. Park managers were compelled to try and conform with, and take cognisance of, the latest in medical technology and thought during a period when medicine itself was undergoing particularly rapid and continuous change. Test and Slaughter was the only practical option for many years, one which acknowledged the potential and realities of transmission. The illusion was that by serum testing one could determine if a given animal was positive or negative in terms of diseases such as tuberculosis or brucellosis. With advances in modern microbiology, it came to be seen that many animals can also be dormant 'carriers' and that they may never come down with the disease but may ultimately become a source of infection. As this fact started to emerge, the notion of slaughtering all adults became the option, with a strong effort to monitor calves. This was not the complete story however. By the 1980s it had become clearer that certain diseases of animals were particularly hard to monitor and eliminate, and that the degree to which it was possible to do so had much to do with the development of proper range conditions and diffused animal proximity.[32] The restricted range and conditions of wildlife existence at Elk Island were directly contrary to what was required according to evolving post-1930 theories of wildlife ecology and carrying capacity. Continually burgeoning ungulate populations at Elk Island had to be controlled nonetheless, by one means or another. One of the main approaches to control was the direct marketing of meat from slaughtered animals, accomplished through contracts to major meat-packing houses.[33] Publicity campaigns might try and disguise this fact on occasion or, alternatively, work to give the approach a romantic or normative aspect, but the facts tended to remain the same from the mid-1920s through the 1960s: Elk Island National Park was in the ranching business as a necessity.[34]

Older Warden's Barn. Elk Island. 1992



New Bison Handling Facility under construction, 1992

## 6.4 Parks, Ecosystems and Cities: The Contemporary Debate at Elk Island

In 1990 the Canadian Parks Service commenced preparation of a new park management plan. The issues addressed during this initiative grew out of a number of circumstances, some local, some regional, and some national in scope. From a policy perspective, the Canadian Parks Service is required to prepare new Park Management Plans every fifteen years, and to review them every five years. This plan sought to revise the 1978 Management Plan. In many respects, the draft 1992 plan is a refinement and extension of some of the 1978 objectives. Superintendent Fred Bamber noted that the 'realities of the 1990s and beyond will present new challenges and opportunities to the park. Park resources will become increasingly threatened.'[35] He went on to express the hope that it would be possible that the park would 'inspire in people a sense of shared responsibility and environmental stewardship, and enhance its leading role in environmental research.'[36] Reflecting the conclusions of a recent state of the parks report, it was felt that human impacts on special landscapes had to be limited even further, and park education and landscape planning policies made to coalesce with those of surrounding agencies and land management authorities. 'Almost all parks report increasing danger from the "island effect" threat, as the development of lands around the parks encroaches closer and closer upon actual park boundaries.'[37]

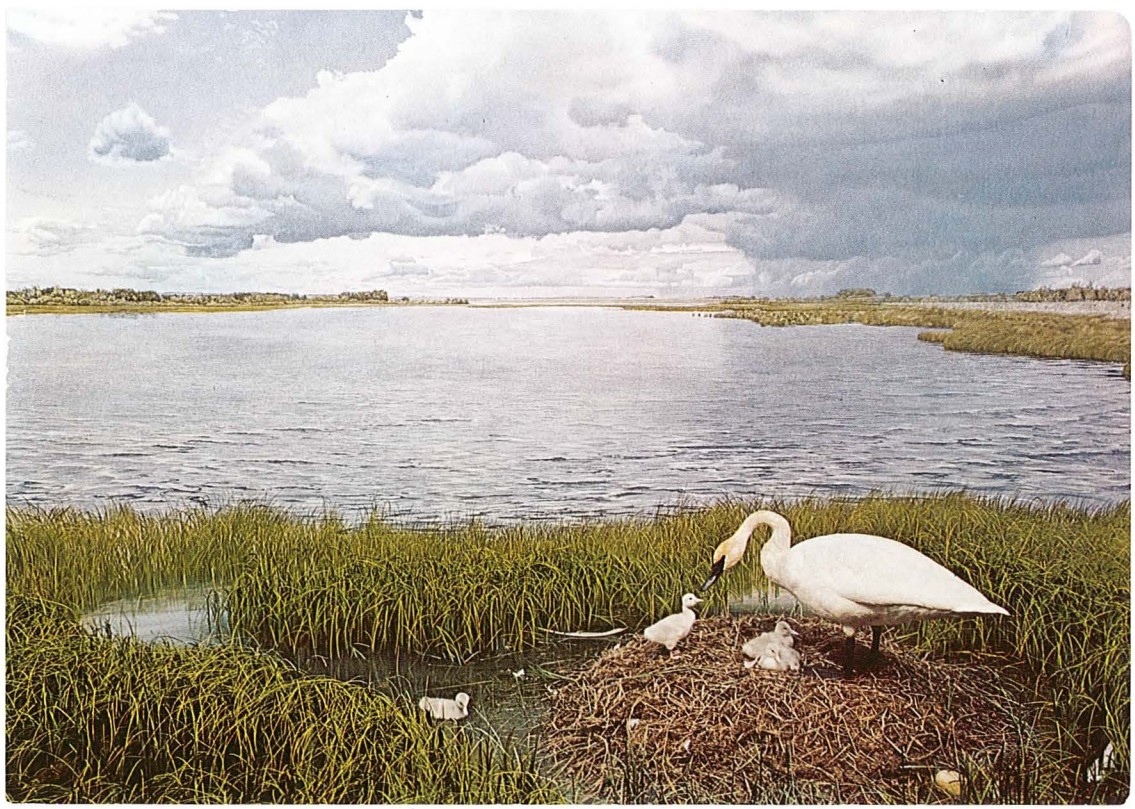
The central issues outlined during the public participation process dealt with some of the perplexing and fundamental environmental questions facing the international world order. A primary objective was to provide renewed management guidelines for the park which would be seen to mesh with the *World Conservation Strategy* documents promulgated by such respected bodies as *UNESCO* and the *International Union for the Conservation of Nature*.[38] In essence, the Canadian Parks Service was attempting to forge a new deal for Elk Island Park, one in which management would be guided by (1) a rigorous analysis of past impacts on the park landscape, (2) promotion of increased bio-diversity through a restoration of a landscape with terrestrial values more representative of the historic boreal-parkland transition belt, (3) increased regional co-operation and integration with other landscape management authorities and heritage and education bodies, and (4) an evaluation of the regional recreation opportunities available in the Edmonton area, and the ideal place of Elk Island National Park in that system.[39]

As in much that is done in the life of a great conservation agency, the terminology may have taken on a contemporary ring, but in terms of fundamental processes and aspirations, there was much old wine in the new bottles. The preoccupation with 'science' was appropriate but not new. The

Bath House and the National Historic Sites and Monuments Board Commemoration Cairn to the Bison. Sandy Beach area. 1992

Trumpeter Swan Habitat Group. Provincial Museum of Alberta. (Grand Prairie Region). Provincial Museum of Alberta

The Trumpeter Swan is now being actively conserved at Elk Island National Park



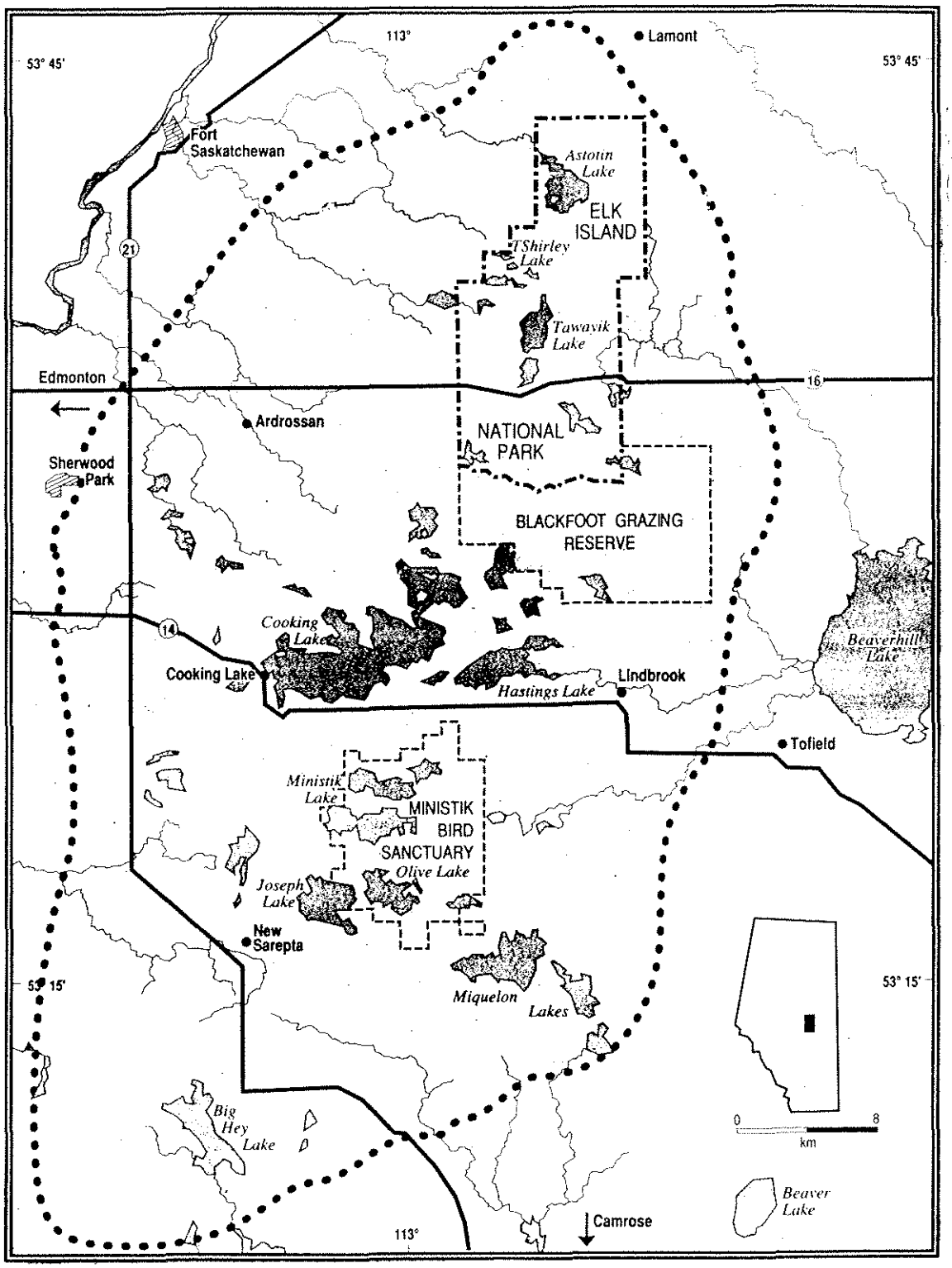
balancing act for park managers both in the field or in policy areas has often required them to decide whose science to believe. The previous sections of this report have attempted to demonstrate the difficulty that any large agency has in keeping current in fields of knowledge, some of which since World War II, have been providing new insights almost daily. One of those areas, crucial to wildlife managers, that of generalized and veterinary medicine was itself, in 1990, a landscape of the mind that would be as little recognizable to our ancestors of the 1880s, the 1920s, or the 1940s, as would the contemporary landscape of Elk Island National Park. The history of the North American Parks movement runs virtually parallel with a century of medical research and change which has totally altered pre-1870 conventional views of public health and disease transmission, not to mention biological genetics which scarcely had a pre-1870 existence.

These are some of the considerations which have led to a re-evaluation of the general role of Elk Island National Park in the Canadian system. The early years demonstrated a bias in favour of large ungulate management and habitat, mixed with efforts to provide a parallel series of recreational opportunities in the form of day-use hiking, swimming, boating, picnic facilities, golf and a limited amount of in-park cottage development. With the general success of the ungulate conservation program, and the post-war expansion of recreational supply in the Edmonton region, the issues are seen now to be of a more general and regional character. Terrestrial conservation theory now suggests that isolated park landscapes and reserves cannot do the job in isolation.[40] The external landscape must become more 'park-like' itself if crucial habitat considerations are to be guaranteed in the long term. National Parks then, require management on behalf of the legitimate ecosystem values which they embody, but they also be managed by means of co-operative adjustments at the boundary and in the wider natural region of which they are just a part. The questions currently being posed at Elk Island National Park are questions seeking an historical redress of its purpose. Are the roads, recreational facilities, and past wildlife conservation objectives as relevant now as they were in the 1920s? If not, what adjustments should be made? And in the brave new world of regional integration, what surprises are in store from such fledgling but expanding enterprises as systematic game ranching?[41] And what can be expected from the not-so-long-ago science-fiction frontiers of biotechnology?[42]

Map 19

# Elk Island and its Neighbours: 1992

Parks Canada




Beaver Hills/Cooking Lake Moraine Area

# Endnotes

1. C.B. Blyth and R.J. Hudson, *A Plan for the Management of Vegetation and Ungulates, Elk Island National Park.* (Environment Canada. Parks. 1987), p. 45

2. K.W. Reid, *Limited Study of Bison Behaviour with Respect to Spruce Trees.* Canadian Wildlife Service. Unpublished Report. 1964, cited in Blyth and Hudson, p. 45

3. Ibid.

4. Ibid. pp. 46-8, 54-5

5. Ibid., pp.68-9

6. Cf. Blyth and Hudson (1987), p. 196 f.

7. Ibid. p. 195

8. Ibid., p. 196

9. Ibid., pp. 198-9

10. Ibid., pp. 197-8

11. Ibid., p. 198

12. Ibid., p. 198

13. Ibid., p. 199

14. Ibid., p. 199

15. R.Y Edwards and C. David Fowle, 'The Concept of Carrying Capacity' in *Transactions of the Twentieth North American Wildlife Conference. March 14-16, 1955.* (Montreal Quebec. Washington, D.C. Wildlife Management Institute. 1955).

16. Blyth and Hudson (1987). p. 200

17. Ibid.

18. Ibid.

19. Ibid., p. 202

20. Ibid.,p. 201

21. Ibid., p. 202

22. *Elk Island National Park. Management Plan.* (Park Planning Division .Parks Canada. Western Region. Dec. 1978).

23. *National Parks Policy.* (Ottawa: Parks Canada, 1978)

24. *Elk Island National Park Management Plan* (1978), pp. 53-4

25. Blyth and Hudson (1987), p. 205

26. C.B.Blyth and J.N. William, *Elk and Moose live capture Elk Island National Park. Winter 1981.* Unpublished Report. Resource Conservation, Elk Island National Park. 1981

27. Blyth and Hudson (1987), p. 205

28. Ibid.,pp. 206-7

29. *Elk Island National Park. Draft Provisional Master Plan.* (Calgary. Parks Canada. n.d.); *Elk Island National Park. Management Plan.* (Park Planning .Parks Canada. Western Region.Dec. 1978).

30. *National Parks Policy.* (Ottawa: Parks Canada, 1978)

31. *Elk Island National Park Management Plan* (1978), pp. 53-4

32. Cf. Gary Wobeser 'Disease in Northern Bison: What to Do?' in John Foster et al. eds. *Buffalo* (Edmonton: University of Alberta Press, 1992), pp. 179-188; Gary Wobeser, *Atlas of Important Diseases of Wild Ungulates* (Regina: Saskatchewan Parks and Renewable Resources, 1989.); Frederick F. Gilbert and Donald G. Dodds, *The Philosophy and Practice of Wildlife Management.* (Malabar, Florida. Krieger, 1992), p. 81 f.

33. N.A. RG 84 Vol. 482 E. 299 Vol. 9 Slaughter of Animals, 1961-64.

34. N.A. RG 84 Vol. 481 E. 232 Pt. 1

35. Fred Bamber, 'Preparing to Meet the Challenges of the 21st Century' in: *Elk Island National Park. Park Management Plan Review.* Newsletter No. 1 (Jan. 1992), p. 2

36. Ibid.

37. *State of the Parks Report. 1990* (Ottawa: Canadian Parks Service, 1991), p. 6

38. Cf. *World Conservation Strategy: Living Resource Conservation for Sustainable Development* (Gland: IUCN, UNEP, WWF. 1980); and Canadian Parks Service. *State of the Parks Report.* (Ottawa: Environment Canada, Parks, 1990), p. 3

39. *Elk Island National Park.* Newsletter No. 1 (1991). pp. 3-5

40. William D. Newmark, 'A land-bridge island perspective on mammalian extinctions in western North American Parks' *Nature* 325: (6103) (Jan-Feb, 1987), 430-32

41. See L.A. Renecker, C.B. Blyth and C.C. Gates, 'Game Production in Western Canada' in R.J. Hudson, et al, eds. *Wildlife Production Systems: Economic Utilization of Wild Ungulates* (Cambridge: Cambridge University Press, 1989), pp. 248-67

42. National Academy of Sciences. *Introduction of Recombinant DNA - Engineered Organisms into the Environment: Key Issues.* (Washington D.C. National Academy Press, 1987); Bernard D. Davis, ed. *The Genetic Revolution: Scientific Prospects and Public Perceptions* (Baltimore: The Johns Hopkins Press, 1991); Bryan G. Norton, *Why Preserve Natural Variety?* (Princeton: Princeton University Press, 1987).

# Bibliography

# Bibliography

## Primary Sources

National Archives of Canada. Ottawa.
RG 84 National Park Records.
RG 85 Departent of Interior Records

Provincial Archives of Alberta. Edmonton.
National Parks Branch Records. Acc. 70.190

Parks Canada. Regional Office. Calgary.
Central Registry Files..

Parks Canada. Elk Island National Park.
Warden's Office. Misc. Records.

## Secondary Sources.

### *Elk Island National Park: General*

Anderson, H.G. and Bailey, A.W., 'Effects of annual burning on grassland in the aspen parkland of east-central Alberta' *Canadian Journal of Botany* 58 (1980), 985-96

Bird, Charled D. and Ralph D. Bird, 'The Aspen Parkland' in: *Alberta: A Natural History'* W.G. Hardy, ed. Edmonton: M.G. Hurtig, 1967. p. 135 f.

Bird, Ralph D., *Ecology of the Aspen Parkland of Western Canada in Relation to Land Use*. Ottawa: Canada Department of Agriculture, 1961.

Blyth, C.B. and Hudson, R.J., 'Elk Island National Park, Alberta Canada - Historical Perspective of Protected Area Management' in *Science and Management of Protected Areas Proceedings of an International Conference*. Wolfville: Acadia University, 1991.

_____, *Elk Island National Park: A Plan for the Management of Vegetation and Ungulates*. Environment Canada Parks. Elk Island National Park, 1971

Burpee,J.L., ed. 'York Factory to the Blackfoot Country: The Journal Of Anthony Hendrey, 1754-55.' *Proceedings and Transactions of the Royal Society of Canada*.. Third Series. I (1907), Section II. pp. 307-64;

Coues, Elliot, *New Light on the Early History of the Greater Northwest: The Manuscript Journals of Alexander Henry the Younger*. Vol. 2. New York: 1897.

Coxford, A. Annual Reports of the Superintendent, Elk Island National Park. in: *Report of the Commisioner of Dominion Parks.* Dept of Interior. 1911-1922.

Canada. Dept. of the Interior. *Description of the Townships of the North-west Territories, Dominion of Canada West of the fourth and fifth meridian.* Ottawa: MacLean, Roger and Co. 1886.

Dunlop, Thomas R. *Saving America's Wildlife.* Princeton: Princeton University Press, 1992.

Hardy Associates (1978) Ltd. *Ecological Land Classification of Elk Island National Park.* Calgary: 1986.

Hickerson, Harold, *The Chippewa and Their Neighbours: A Study in Ethnohistory,* Rev. ed. Prospect Heights: Waveland Press, 1987.

Higgins, Kenneth F. et al. *Effects of Fire in the Northern Great Plains* Brookings: U.S. Fish and Wildlife Service; South Dakota State University; U.S. Department of Agriculture,1986.

Keith, Lloyd B. 'Early Notes on Wildlife from New Sarepta, Alberta' *Canadian Field Naturalist* 79 (1965). 29-34
Kidder, John, Montana Miracle: It Saved The Buffalo' *Montana: The Magazine of Western History* (Spring, 1965), 52-67

Kjorlien, Monrad E. 'A Review of historical information on fire history and vegetation description of Elk Island and the Beaver Hills.' Paper on File. Elk Island National Park. Warden's Office. 1977.

Lehr, John C. 'Changing Ukrainian House Styles' *Alberta History,* (Winter 1975), 25-29

_____. 'Ukrainian Houses in Alberta' *Alberta Historical Review,* ( Aut. 1973), 9-15

_____. 'The Ukrainian Presence on the Prairies' *Canadian Geographic,* (Oct/Nov.1978), 28-33

Leopold, Aldo. *Game Management* New York: C. Scribner's, 1947

Lothian, W.F. 'Elk Island National Park' *Canadian Geographical Journal* 20 (1) (1940), 315-25

Mayo, N.S. *Animal Diseases* New York: MacMillan, 1917.

MacGregor, J.G. *The Battle River Valley* Saskatoon: Prairie Producers, 1976.

Mandelbaum, David G *The Plains Cree: An Ethnographic, Historical and Comparative Study.* Canadian Plains Studies, 9 Regina: Canadian Plains Research Centre, 1979.

Morton, A.S. *A History of the Canadian West to 1870-71.* 2nd ed. L.G. Thomas, ed. Toronto: University of Toronto Press, 1970

_____.ed. *The Journal of Duncan McGillivray.* Toronto: 1929

Nyland, Edo, 'Miquelon Lake' *Alberta Lands, Forests, Parks, Wildlife*, 13:(1) (1970)

_____, 'This Dying Watershed' *Alberta Lands, Forests, Parks, Wildlife* 12:(3) (1969)

Ogilvie, Sheilagh C. *The Park Buffalo*. R.C. Scace, ed.Calgary: National and Provincial Parks Association,1979.

Oster, Elsie S. *Untitled Manuscript*. 1961. (Re agricultural activity in the park area.) On file Elk Island National Park,

Ray, Arthur J. *Indians and the Fur Trade: Their Role as Trappers, Hunters and Middlemen in the Lands Southwest of Hudson Bay 1660-1870*. Toronto: University of Toronto Press, 1974.

Ream, P.T. *The Fort on the Saskatchewan* 2nd. ed. Edmonton: Metropolitan. 1974.

Reeves, B.O.K. *Elk Island National Park Management Plan: Cultural Resources*. Report prepared for the the Canadian Parks Service, Calgary Office. 1991.

Reid, I. 'Good Hope Days' *Alberta Historical Review*, 9(2) 22-4

Russell, Dale *Eighteenth Century Western Cree and thier Neighbours*. Archaeological Survey of Canada, Mercury Series No. 143. Ottawa: National Museum of Civilization, 1991.

Tessaro, Stacy V. 'Bovine Tuberculosis and Brucellosis in Animals, Including Man' in: John Foster et al. eds. *Buffalo* Edmonton: University of Alberta Press, 1992.

Van Zyll de Jong, C.G. 'Origin and Geographic Variation of Recent North American Bison' in: John Foster et al. eds. *Buffalo* Edmonton: University of Alberta Press, 1992.

Wilson, I.R. and Head, T.H. Archaeological Inventory of Elk Island National Park. Manus. Report Series No. 318. Ottawa: Parks Canada, 1978

Young, Morley A.R. 'Elk Island and the Buffalo' Manuscript on file. Elk Island National Park.

Zoltai, S.C. *Southern Limits of Coniferous Trees on the Canadian Prairies*. Information Report. NOR-X-128. Northern Forest Research Centre. Edmonton. Environment Canada. Forestry Service, 1975.

***Elk Island and Wood Bison***

Banfield, A.W.F. *The Survival of the Wood Bison (Bison Bison Athabascae Rhoads in the the Northwest Territories.* Ottawa: National Museum of Canada. Natural History Papers. No. 8 Aug. 30, 1960.

Canadian Wildlife Service. 'A Program for the Control of Tuberculosis in the Wood Bision Herd at Elk Island National Park, Alberta' Report on File. Ottawa: Department of Indian Affairs. March 17, 1969.

Fuller, W.A. 'Aerial census of northern bison in Wood Buffalo National Park and vicinity' *Journal of Wildlife Management.* 14(4) (1950), 445-51
Gates, C. et al. 'Wood Buffalo At the Crossroads' Alberta 3(1): (1992), 139-65

Harper, Francis. 'Mammals of the Athabascka-Great Slave Lakes Region' *Journal of Mammology* 13(1) (1932), 19-36

Hearne, Samuel. *A Journey from Prince of Wales Fort in Hudson's Bay to the Northern Ocean in the Years 1769, 1770, 1771 and 1772.* London: 1795.

Hind, H.Y. *Narrative of the Canadian Red River Exploring Expeditions of 1857 and of the Assiniboine and Saskatchewan Exploring Expeditions of 1858.* London: 1860.

Ogilvie, William. *Report on the Peace River and Tributaries in 1891.* Canada. Dept of Interior. Annual Report. 1892. Part 7. Ottawa: 1893

'Oldest Residence in National Parks System' *Elk Island Triangle*, Aug. 26,1981

Raup, Hugh M. 'Range Conditions in the Wood Buffalo Park of Western Canada with notes on the history of the Wood Bison' *Special Publications. American Commission for International Wildlife Protection.* 1:(2) (1933).

Rhoads, Samuel N. 'Notes on Living and Extinct Species of North American Bovidae' *Proceedings of the Academy of Natural Science, Philadelphia.* 49(1897), 483-502

Seibert, F.V. *A Reconnaisance into the home of the Wood Buffalo.* Appendix to *Canada's Wild Buffalo* by Maxwell Graham. Ottawa: Dept of the Interior. 1923.

Seton, E.T. 'The Wood Buffalo' *Proceedings of the Canadian Institute.* 31: (1886), 114-17

Skinner, Morris F. and O.C. Kaisen 'The Fossil Bison of Alaska' *American Museum of Natural History* 89:(3)(1947), 131-256

Soper, J. Dewey, *'History, Range and Home Life of the Northern Bison'* Ecological Monographs 11. 1941