Spring Bay Important Bird Area
Conservation Plan

Produced for the Spring Bay Important Bird Area Steering Committee

by

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Acknowledgements

The Important Bird Area (IBA) Program is part of the Natural Legacy 2000 program, a nation-wide initiative to conserve wildlife and habitats on private and public lands. We gratefully acknowledge the financial support of the Government of Canada's Millennium Partnership Program. We also acknowledge the financial support of the Charles Stewart Mott Foundation to Great Lakes Basin Important Bird Areas.

Canadian Nature Federation and Bird Studies Canada are the national partners of BirdLife International in Canada. The Federation of Ontario Naturalists is responsible for site conservation planning in Ontario IBAs.

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Sandhill Crane taking a stroll E. Cheskey

1.0 Introduction

There are few natural spectacles that match the majesty and drama of the crane dance. We had heard of it, read about it, but not yet seen it. Today would be the day, our guide claimed. We sipped our tea and coffee in the early morning darkness, then left our bed and breakfast in Providence Bay, heading north in a convoy of four vehicles. The hoarfrost gave everything a ghostly glow. Within minutes we were parked along a roadside, peering through the early dawn darkness into a wispy low fog that clung to the field. Venus had already faded into the brightening glow to the east. Several minutes passed. Movement over the field caught my gaze: a short-eared owl glided effortlessly over the pasture. Entranced and absorbed by its moth-like flight, my heart leaped a beat when silence was broken by a spine-tingling bugle from a Sandhill Crane passing no more than 10 metres over our heads. A second, and a third arrived, then more, flying into the field from a distant wetland refuge where they had passed the night in safety. Within moments, dozens of cranes had assembled in the field, many still obscured by the low fog, others clearly in view. Then one bird, quite close by, obliged us by starting its dance. It danced two complete five-metre circles, stopping at the compass points, turning inward, spreading its wings and jumping six feet in the air.[1] A nearby pair danced a complete circle. We were awe-struck! [2]

The stunning spectacle of the Sandhill Crane migration is relatively new to Ontario. Manitoulin Island is a major concentration point for Cranes heading south from north-central and Northern Ontario. The Spring Bay Important Bird Area (IBA) supports continentally significant number of Sandhill Cranes during their fall migration. These cranes gather in the fields and pastures during the day, and seek refuge in large, undisturbed wetlands at night. Marsh Lake, the natural feature that is the focus of this report, has been discovered to be a major roosting and resting site for Sandhill Cranes during their fall gatherings. Other roosting sites, yet undiscovered, may be within the area.

The Spring Bay IBA stakeholders met in March 2000 to discuss the IBA concept, and specifically, its meaning and value to the local area. From this meeting, specific objectives were set to describe the biophysical conditions of Marsh Lake that support Sandhill Cranes, and most importantly, to monitor and document Crane use of the site during the fall. Identification of Marsh Lake as a major crane refuge was based on an initial observation in 1999. Work in the fall of 2000 confirmed the presence of over 1000 cranes (Chris Bell, pers. comm., 2000).

The initial chapters of this plan lay out the geographical, biological, and social context of the area. Chapter 4 is a detailed discussion on the natural history of Sandhill Crane. Opportunities and threats are addressed in Chapters 9 and 10, while Chapter 11 is focussed on an action plan towards protecting the key roosting site while building interest in Sandhill Cranes and Manitoulin Island for conservation and ecotourism.

[1] This is based on a note from Verne Smythe, who observed the cranes dancing in the fall of 2000.
[2] E. Cheskey, 2001.

The Vision Statement for the Spring Bay IBA is as follows:

> *The Spring Bay Important Bird Area recognises the importance of south-central Manitoulin Island, particularly Marsh Lake for congregating Sandhill Cranes, and will work to protect conditions that support cranes, for their benefit, and so that they can be observed, studied and enjoyed.*

2.0 The Important Bird Area Program

The IBA program is an international initiative coordinated by BirdLife International, a partnership of member-based organizations in over 100 countries seeking to identify and conserve sites important to all bird species world-wide. Through the protection of birds and habitats, they also promote the conservation of the world's biodiversity. There are currently IBA programs in Europe, Africa, the Middle East, Asia, and the Americas.

The Canadian BirdLife co-partners are the Canadian Nature Federation (CNF) and Bird Studies Canada (BSC). The Canadian IBA program is part of the Americas IBA program which includes the United States, Mexico, and 17 countries in Central and South America. The Federation of Ontario Naturalists is responsible for implementing conservation planning for IBAs in Ontario.

The goals of the Canadian IBA program are to:

- identify a network of sites that conserve the natural diversity of Canadian bird species and are critical to the long-term viability of naturally occurring bird populations;
- determine the type of protection or stewardship required for each site, and ensure the conservation of sites through partnerships of local stakeholders who develop and implement appropriate on-the-ground conservation plans; and
- establish ongoing local involvement in site protection and monitoring.

IBAs are identified by the presence of birds at sites falling under one or more of the following internationally agreed-upon categories:

1) sites regularly holding significant numbers of an endangered, threatened, or vulnerable species
2) sites regularly holding an endemic species, or species with restricted ranges
3) sites regularly holding an assemblage of species largely restricted to a biome
4) sites where birds concentrate in significant numbers when breeding, in winter, or during migration.

While the program at all stages is a voluntary one, the advantages of an IBA recognition extend beyond those of conservation alone. There can be increased awareness of the true worth of the

site among the local community, and community involvement can result in diverse groups working for a common cause.

In Ontario, the Federation of Ontario Naturalists is conducting community conservation planning in approximately 20 sites as of 2000. Community conservation planning means engaging the local community in the development and implementation of the conservation plan. Spring Bay IBA is about protecting the wild character of Marsh Lake so that it can continue to provide refuge to Sandhill Cranes and other wildlife. It is also about celebrating this magnificent bird and the wonders of migration that bring Sandhill Cranes to Manitoulin each fall.

3.0 IBA Site Information

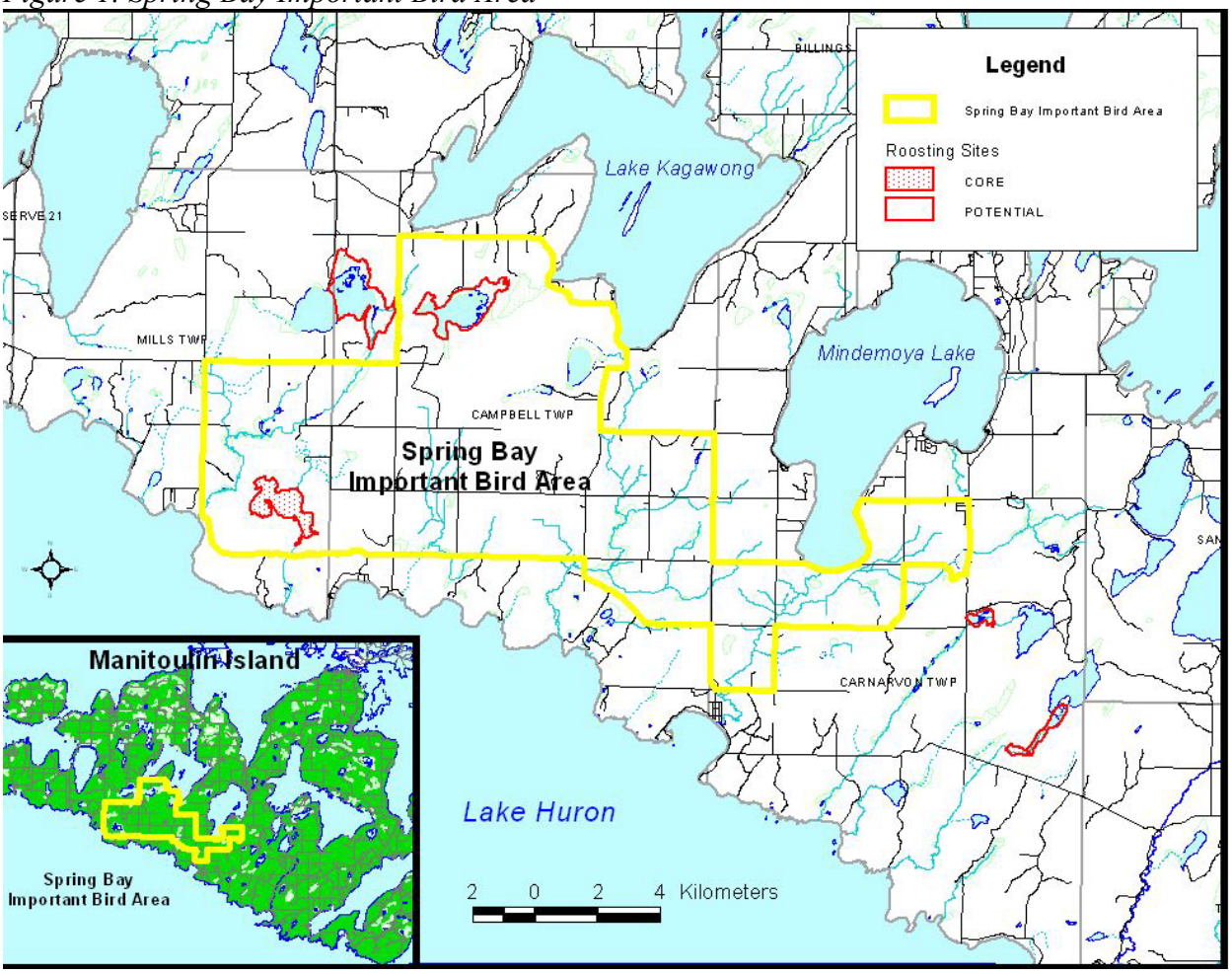
Site: Spring Bay, CAON151C
Location: 45°27' N, 82°29' W

The Spring Bay IBA is located in south central Manitoulin Island, Ontario, near the farming community of the same name (see Figure 1). The total area under consideration is approximately 170 km^2 and includes the farming communities of Britainville, Grimsthorpe, Perivale, and Poplar. This IBA site is virtually surrounded by water: Georgian Bay lies to the south, and numerous inland lakes of varying size exist just beyond the remaining boundaries – lakes Wolsey, Kagawong, and Mindemoya being the largest. Much of the land is cultivated for the growing of grains and hay; improved grasslands are maintained for cattle pasture. Mixed woods of aspen and maple border agricultural fields while hedgerows of shrubs and trees break up the agricultural landscape. Several streams and drainage ditches extend through the area.

Wetlands dominate the southwest sector of this IBA. Vegetation extending from a lake marsh of substantial size forms a successional mosaic of wetland types: reed marsh, cattail marsh, quaking bog, swamp, and thickets of alder and willow**.**

Spring Bay IBA lies within the Manitoulin-Lake Simcoe ecoregion of the Mixed Wood Plain ecozone. Warm summers and mild winters characterize this ecoregion. The waters of Georgian Bay moderate the temperatures in autumn and spring. The mean annual temperature is approximately 6° C (Ecological Monitoring and Assessment Network website, 2000).

Figure 1. Spring Bay Important Bird Area



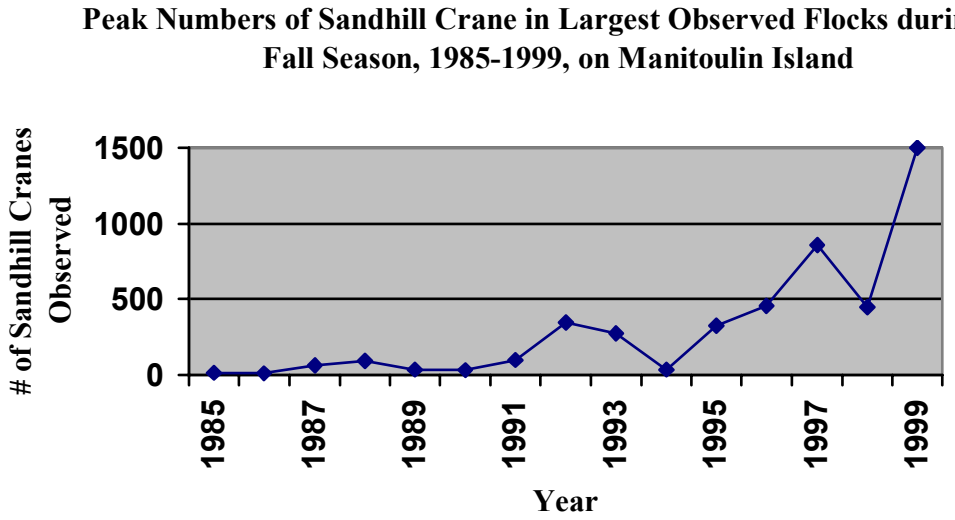
4.0 IBA Species Account

> "Our appreciation of the crane grows with the slow unravelling of earth history. His tribe, we now know, stems out of the remote Eocene. The other members of the fauna in which he originated are long since entombed within the hills. When we hear his call we hear no mere bird. He is a symbol of our untameable past."
>
> Aldo Leopold, *A Sand County Almanac,* p. 96

4.1 Abundance and Distribution

This site is a migratory staging area for a significant number of Sandhill Cranes (*Grus canadensis*) on their autumn migration. Some of these migrants breed on Manitoulin Island, while others arrive from breeding grounds north of the Island. During the Ontario Breeding Bird Atlasing period (1981-85), more than a dozen squares on the island reported some evidence of breeding (Lumsden 1987). Nicholson (1972) states that "the odd pair of Sandhill Crane" breed in marshes on the island. On 19 August 1999, near Mud Lake along the northern edge of this IBA site, a pair of Sandhill Cranes accompanying one young was observed. During this staging, which takes place from late September until as late as early November, Sandhill Cranes feed and rest within the Spring Bay IBA. Numbers, which peak from 14 to 22 October (John Lemon, pers. comm., 2000), have steadily increased (see Figure 2). In autumn 1999, an estimated 1,500 cranes were observed flying into Marsh Lake. In 2000, 1339 cranes were counted by Chris Bell in the vicinity of Marsh Lake on October 19. These numbers represents about 2-3 percent of the eastern population of Greater Sandhill Crane (*Grus canadensis tabida*), making Spring Bay a continentally significant IBA under the congregatory species category (Canadian IBA Database 1999).

Figure 2. Increase in numbers of Sandhill Cranes on Manitoulin Island.



On Manitoulin Island, few records of Sandhill Crane exist prior to 1970 (one pre-1935; one in 1959, two in 1961). Between 1970 and 1984, a few (one to four) Sandhill Cranes were recorded during the spring of most years (Nicholson, 1972; Lemon pers comm.). Since 1985, Sandhill Cranes have been recorded during the fall migration in ever-increasing numbers.

Extirpated from almost all of its former breeding range in the southern parts of Canada, the Sandhill Crane has increased in number across British Columbia, the Prairies, and Ontario since the 1930s (del Hoyo 1992). In 1981 the breeding range extended eastward into Quebec and since that time has further expanded in that province (Letourneau and Morrier 1986). Between 1966 and 1994 the mean annual increase in population across the country has been 9.1 percent (Pedlar and Ross, 1997). The Committee on the Status of Endangered Wildlife in Canada lists Sandhill Crane as not at risk.

Six subspecies of Sandhill Crane have been described; three are migratory and three are non-migratory. The taxonomic status of Sandhill Cranes and the relationship among the subspecies and their populations is discussed in *The Cranes: Status Survey and Conservation Action Plan* (North American Crane Working Group website 1999), and Tacha et al. (1992). Briefly, the breeding range of the migratory Sandhill Cranes extends from northeastern Siberia and Alaska, across the continent to western Quebec and south, and intermittently throughout the Canadian west and the northern tier of U.S. states from northern California to Michigan. The non-migratory Sandhill Cranes breed in southeastern United States and Cuba.

Of specific interest to the Spring Bay IBA is the distribution of the eastern population (one of five populations) of Greater Sandhill Crane. This population breeds intermittently in south central Canada, the western Great Lakes, and the upper midwest of the U.S. (i.e., southern Ontario through to southeastern Minnesota). European settlement of this Great Lakes region extensively altered the habitat of these lands in the eighteenth and nineteenth centuries. Hunting, agricultural expansion, and drainage of wetlands almost led to the extirpation of the Greater Sandhill Crane from this region. In 1979, however, 225 were observed in southern Algoma District, and within six years cranes had colonized Manitoulin Island and the Bruce Peninsula. These colonizers came from either a remnant population that remained undetected in Algoma District or from the Upper Peninsula of Michigan, where cranes were known to have survived and bred (Lumsden 1987).

Since the 1930s, populations of the Greater Sandhill Crane in the Great Lakes region have recovered dramatically. Wetlands that serve to concentrate cranes during migration are as critical to the survival of this species as are its breeding grounds. For this reason, Spring Bay IBA provides a vital habitat link between the breeding and wintering grounds of this subspecies.

Spring Bay IBA is one of a number of staging areas on the Canadian side of the Great Lakes. Other staging areas within a radius of 120 kilometres include sites near Bruce Mines and Massey along the north shore of Lake Huron and the upper Bruce Peninsula**.**

The major autumn staging area for the Greater Sandhill Crane is Jasper-Pulaski State Fish and Wildlife Area in northwestern Indiana. Each year, approximately 16,000 cranes arrive here by

late October, with numbers occasionally reaching 32,000. The birds remain here until early December (Jasper-Pulaski State Fish and Wildlife Area website).

The wintering grounds of this subspecies are in southern Georgia and central Florida. A Sandhill Crane observed by John Lemon and Chris Bell on Manitoulin Island was banded near Jacksonville, Florida, supporting the suspicion that Sandhill Cranes that stage during migration on Manitoulin Island winter in Florida. Individual Sandhill Cranes, and especially mated pairs, exhibit fidelity to both breeding site and winter home range, provided that the habitat remains suitable (Tacha et al. 1992).

Recent census work suggests that this subspecies is maintaining a stable to increasing population, with some eastern expansion in Ontario accounting for some of the observed increase (Pedlar and Ross 1997). Determining accurate population estimates and distribution maps of Sandhill Crane subspecies is difficult because of random interbreeding among members of the three migrating subspecies and the intergrading of observable characters. As well, subspecies often occur together on their winter range.

4.1.1 Ontario populations of Sandhill Crane

The James Bay Lowland and Great Lakes Sandhill Crane populations are distinct. Distributions of the James Bay Lowland cranes (which are likely *Grus canadensis rowani*) and Great Lakes cranes have probably only become contiguous (and then only to a minor degree) in the last few decades as both populations have increased and populated small isolated pockets of suitable habitat in the otherwise unsuitable Canadian Shield. The James Bay Lowland cranes do not join with the Great Lakes Sandhill Cranes during migration. Rather, they migrate southwestward to the central flyway and then fly south to wintering grounds in Texas. Further study of the taxonomy and migration of the James Bay Lowland cranes is needed to clarify their relationship to the Great Lakes birds.

4.2 Natural History of Sandhill Cranes

The natural history of Sandhill Cranes is thoroughly summarized by Tacha et al. (1992) and both informatively and entertainingly presented in *The Cry of the Sandhill Crane* (Grooms 1992). An adult crane standing erect may be 1.2 metres tall. In adult plumage, the bird is uniform grey with dull red skin on the crown and in front of the eyes. Young birds are brown. Plumage becomes discoloured – drab-clay to cinnamon rust – from vegetation and mud rubbed intentionally onto the feathers. A heavy-bodied bird, the Sandhill Crane has a wingspan of 2.1 metres and in flight extends its long neck and trails its legs well beyond its body, resulting in a distinctive flight silhouette. Perhaps the most characteristic feature of this bird, however, is the loud, bugling “gar-oo-oo-oo” calls that may be heard as far away as four to five kilometres. Confusion with other large birds, even at great height, should not be a problem: Great Blue Herons fly with extended legs but folded necks; geese and swans have extended necks but short legs, and their wings are somewhat pointed, not rounded on the ends as are those of cranes.

Sandhill Cranes are primarily birds of open freshwater wetlands and shallow marshes. They nest in isolated, open marshes, bogs, marshy hay meadows, or grassy, burned-over aspen stands.

Selected sites are usually far from human habitation. Forests that surround their breeding marshes or bogs often provide the necessary seclusion.

Pair formation in cranes begins with elaborate courtship dancing. Cranes mate for life and provide extended care for their young. Pairs incubate two-egg clutches but rarely fledge more than one young. Thus the annual recruitment into a population is low. Pairs and family groups of three or four remain together for 9-10 months, from the end of the nesting period to the following March (Tacha et al. 1992). The primary social units, (i.e., the stable relationships that exist among cranes), are family groups, pairs, and unmated adults. In late summer, these social units combine into large, socially unstable flocks to migrate**.** Such flocks may consist of hundreds to several thousand individuals that congregate at migratory staging areas and on wintering grounds.

A migratory staging area must provide food and a nocturnal roost. In fall, cranes feed in hayfields and pasture until harvest. Then grain fields (preferably corn stubble with waste corn) are selected whenever available**.** Although omnivorous on the breeding grounds, cranes prefer grains in autumn. During migration, diet is similar among age, sex, and social units. A marsh with little human intrusion may serve as a nocturnal roost site; the key components are isolation and water less than 20 cm deep over a firm bottom (Ibid. 1992). Isolation may be achieved by being surrounded by either deeper water or wide-open spaces that provide a line of sight for at least 600 metres (Grooms 1992). This combination offers the cranes security against predators. The ability to detect human encroachment is more important to cranes than the nearness of human dwellings such as farmhouses and buildings (Tacha et al. 1992).

Spring Bay IBA offers these amenities: pasture, hayfields, and harvested grain fields and a nearby secluded, shallow marsh lake. This combination of features is also found in Jackson County, Michigan (Julie Craves, pers. comm., 2000). During October to mid-November upwards of 3,000 Sandhill Cranes stop over there. During the day the cranes forage for insects and wasted corn in the harvested fields. Each evening they fly to the nearby Phyllis Haehnle Sanctuary to roost for the night. This sanctuary is a secluded lake marsh and swamp surrounded by woods and abandoned fields. It was established through the combined efforts of local landowners, farmers, and naturalists to provide Sandhill Cranes with a stopover in south-central Michigan (http://www.audubon.org/chapter/mi/jackson/haehnle_index.htm).

5.0 Other Elements of High Conservation Value

The wetland complex that is the central feature of this IBA is a diverse ecosystem with numerous communities. Communities were described during a visit on July 10, 2000, by Cheskey and Bell. Sedges listed were later identified by Farrell. The easterly sector (Marsh Lake proper) is an elongated water body aligned along a south-south east to north-north west axis that tapers at either end. (see Figure 1). It includes a shallow open lake, ringed with a floating bog mat, dominated by shrubs including Alder (*Alnus* sp), Dogwood (*Cornus* sp), Meadowsweet (*Spirea alba*), Tamarck (*Larix laricina*), large patches of cattail (*Typha latifolia*), Royal Fern (*Osmunda regalis*), Marsh Fern (*Thelypteris palustris*), Pitcher Plant (*Sarracenia purpurea*), Blue Flag (*Iris versicolor*), Joe-Pye Weed (*Eupatorium maculatum*), Buckbean (*Menyanthes*

trifoliata), Purple-fringed Orchid (*Platanthera psycodes*), Blue-joint Grass (*Calamagrostis canadensis*), and the following predominant sedges: *Scirpus atrovirens, Carex retrorsa, Carex diandra, and Eleocharis erythopoda*.

The lake-fringe floating mat integrades to woodland, including dense cedar thickets to the north-east. A wooded limestone ridge separates the main body of water from a shallow bay on the western portion of the wetland. This western bay has a north to south incline (i.e., deepest on the north). Adjacent to parts of the southern fringe of the wetland is fossil-rich limestone pavement which declines at a very slight gradient to the north. Sedges dominate these very shallow waters. Sedge and rush species include: *Scirpus americanus, Rhynchospora capillacea, Rhynchospora alba, Carex limosa, Carex lasiocarpa, Carex cryptolepis,* and *Eleocharis compressa.*[3] A shallow floating mat includes some of the sedges and rushes described above, as well as Royal Fern, Buckbean, and Sweetgale (*Myrica gale*).

Birds noted on the July 10 trip are recorded in Appendix 2. Little additional wildlife was observed during the visit on July 10. Habitat for Black Terns was noted in the wetland, though no terns were observed. Black Terns breed at Mud Lake north of Marsh Lake, according to Cairns Wake (1997). Conditions in the wetland likely support a high diversity of reptiles and amphibians.

Alvar, a globally rare ecosystem, is fairly extensive along the southern edge of the western bay, extending sporadically to the south towards Lake Huron. The alvar directly adjacent to the bay has rich fossil beds that merit proper investigation and description. The extensive alvars for which Manitoulin Island is famous, including Misery Bay, lie to the west of the IBA.

6.0 Land Ownership and Use

6.1 Land Ownership

Much of the 170 km^2 area of this IBA site is privately owned. Beyond Marsh Lake and other wetlands, much of the land within this IBA is pastured and cropped. The Crown owns Lot 6, Conc. 11, which includes most of the west bay in which Sandhill Cranes roost in the "core area" in the south-west corner of the IBA (see Figure 1).

6.2 Land Use

6.2.1 Historical

Manitoulin Island is part of the Niagara Escarpment. Exposed bedrock of limestone and dolostone gives the island much of its character. Glaciation defines many of the landscape features – deeply carved bays, erratic boulders and cobblestones, scarred alvars, and flat rock pavements without much, if any, soil. Steep cliffs form the north side of the island while the bedrock slopes gradually into Lake Huron on the south side. It is on this southern half that land

[3] The botanist was 60 percent confident with this specific identification.

suitable for agriculture exists. The island was opened to settlement in 1862 after a treaty was signed with the Odawa and Ojibwe, the First Nations peoples of Manitoulin Island. Clearing of the uplands for timber and drainage of low-lying areas provided land for agriculture. Undoubtedly many homesteaders were optimistic about farming opportunities, for extensive regions of the island were initially cleared. Although farming is still practised, much of the land supports only marginal farming and many farms have been abandoned (Jones 1998).

6.2.2 Current

Today, cultivated fields and pasture intermix with regenerated forest and a variety of wetlands. Some of the better farmland on Manitoulin Island lies north of the marshlands in the western sector of the IBA site. Habitat is suitable for White-tailed Deer (*Odocoileus virginianus*), which in turn provide hunting opportunities. Since mostly all land is privately owned, hunting is strictly regulated and requires the written permission of the landowner (John Lemon, pers. comm., 2000). The numerous lakes offer fishing from canoe and powerboats.

Marsh Lake itself is visited by occasional waterfowl or deer hunters in the fall. One landowner of a Marsh Lake lot hunts once or twice over fall weekends, including opening day for waterfowl in mid-September. A bush road is the only access to the lake from the south. An off-road vehicle track is the only access from the north.

7.0 Conservation Management Achieved at the IBA Site

Spring Bay IBA currently holds no designation that provides the site with protection; however, the Sandhill Crane is protected under the Migratory Birds' Convention Act of 1918. The species is classified as Lower Risk under the World Conservation Union (IUCN) Red List Categories of threatened species.

The North American Crane Working Group (NACWG) is an organization of professional biologists, aviculturalists, land managers, and volunteers dedicated to the conservation of cranes and their habitats in North America. NACWG sponsors a North American Crane workshop every three to four years, promotes research on crane conservation and management, and promotes public education concerning cranes and their habitats.

The International Crane Foundation (ICF) works at the global scale to conserve cranes through wide-ranging research on crane biology and ecology, habitat protection and preservation, and public education. The ICF offers expertise in habitat management, habitat restoration, and crane ecology.

8.0 Opportunities

Cranes – there are 15 species throughout the world – are an inspiration to people of many cultures. Cranes are the subject of myths and legends perhaps because they are human-like in height, they walk on two legs, and they dance. Their dancing has inspired imitation among

peoples of Africa, Australia, the Orient, and the American southwest. Cranes are a symbol of longevity, marital fidelity, good fortune, insight, and vigilance.

In Nebraska the Sandhill Crane has come to symbolize the efforts of volunteers, non-government agencies, and government agencies working together to conserve the Platte River Valley. This river provides the key spring migratory staging area for the Lesser Sandhill Crane – the long distance migratory subspecies – as it heads north as far as eastern Siberia and Alaska from its wintering grounds in Texas and New Mexico.

The Manitoulin Island Nature Club, an affiliate of the Federation of Ontario Naturalists, adopted the Sandhill Crane as part of its logo. In mid-October the Friends of Misery Bay invite the public to join them for their annual Sandhill Crane festival to view the Sandhill Cranes during their migration stopover in the Spring Bay area. Birders (e.g., Ontario Field Ornithologists) and other naturalists, have been extended invitations by the Friends of Misery Bay to view the spring courtship rituals of Sharp-tailed Grouse on the Island. Island websites alert naturalists and tourists to the opportunity to experience the natural history of Manitoulin Island. This may offer economic opportunities to a region with an unemployment rate greater than 20 percent and a rural economy described recently as desperate (Jones 1998). In 2001, over 40 people stayed in hotels or bed and breakfasts in the Gore Bay area for the "Dancing in the Dawn" celebration of the Sharp-tailed Grouse courtship (Steve Hall, pers comm., 2001).

In the fall, within the IBA, cranes use lands for foraging and for roosting. Foraging areas include both pasture and crop lands. As the cranes congregate during September and October, their presence in large numbers prior to harvest can cause a significant loss of seed in fields that have been cut but not combined. Strategies to accommodate both farmers and cranes need to be explored before cranes come to be seen as an agricultural threat.

During the process of developing this plan, alvar habitat was identified within the IBA itself. Given the significance of alvar in Ontario, this area should receive further attention by the OMNR and the Nature Conservancy of Canada.

9.0 Threats

9.1 Disturbance

Disturbance of Sandhill Cranes at their nocturnal roosting site is a primary concern. The shallow fen and marshes surrounded by a variety of successional wetland communities offer critical seclusion and roosting habitat. Also of importance along the migratory route are feeding areas, usually agricultural fields. Sandhill Cranes migrating through Manitoulin Island feed in pasturelands among cattle and in harvested grain and hayfields. The level of disturbance that cranes tolerate on their feeding grounds varies with their experiences. In the Abitibi-Temiskaming region of Quebec, for example, hundreds of Sandhill Cranes feed in farm fields some of which lie within a few 100 metres of farm buildings and farmhouses. In fact, cranes have been observed feeding on the lawns surrounding a farmhouse (William Wilson, pers.

comm., 1999). This suggests that the everyday activity around a farm may have minimal impact upon foraging or feeding Sandhill Cranes in a rural community that welcomes and enjoys the annual visitation – perhaps of two weeks duration – each autumn after the fall harvest.

Disturbance could possibly arise from well-intentioned visitors. The Algonquin Eco Watch Group monitors the impact of ecotourism on species in their natural environment throughout central Ontario, including Manitoulin Island. This group expresses caution concerning some forms of ecotourism. In some parts of the world, ecotourism has forced some species to retreat from areas of prime habitat because of human disturbance (Algonquin Eco Watch Group website). By organizing controlled visits to view the cranes, the Friends of Misery Bay are minimizing such concerns. Should interest and number of viewers increase, new safeguards to minimize disturbance can be implemented. Such has been the experience along the Platte River where thousands of visitors each spring simultaneously enrich their lives with experiences of these magnificent birds and the local economy (Ed Pembleton, pers.comm., 2000).

Disturbance at Marsh Lake or other roosting sites is a primary concern and should be minimized and monitored. Disturbance by waterfowl or deer hunters is a potential concern. At present, the cranes seem to tolerate the low level of hunting activity that occurs. If the number of hunters and duration of hunting activity at Marsh Lake increases, this could result in the cranes abandoning this roosting area.

9.2 Habitat Degradation

Historically, loss and degradation of wetland habitats have posed a significant threat to many species of bird throughout North America. Wetland conservation and protection is vital for Sandhill Crane survival, particularly in staging and wintering areas. Within the Spring Bay IBA there appears to be no immediate threat to the main roosting site at Marsh Lake due to either drainage or filling in of wetlands (Chris Bell, pers comm., 2000). However, no site is immune to future land use changes. Permanent protection of Marsh Lake should eventually be obtained.

9.3 Legal Hunting of Cranes

As the Sandhill Crane population increases in Ontario, concern has been expressed by the Ontario Federation of Agriculture about potential damage to unharvested cereal crops, particularly on farms east of Sault Ste. Marie (Lampart 1996). Crop damage is greatest in years when harvest is delayed by weather and has not been completed before Sandhill Crane migration in late September and October. Losses are greatest if grains have been cut but not combined (Steve Hall, pers comm., 2001).

Sandhill Crane is designated as a game bird under federal jurisdiction and a fall hunting season exists in Manitoba and Saskatchewan. No plans currently exist to permit the hunting of Sandhill Crane in Ontario (Brad Gerrie, Ontario Ministry of Natural Resources, pers. comm., July 2000). Presently farmers whose crops are damaged by Sandhill Crane may be issued a kill permit that permits a farmer to shoot one crane per day, a technique that apparently is successful. The Canadian Wildlife Service has indicated that a restricted-season hunt could be considered in

Ontario if crane populations are sustainable (Lampart 1996). If a seasonal crane hunt is ever invoked, protection of sanctuary sites will be urgently needed.

10.0 The Action Plan

The following action plan lays out the basics for conserving the value of the IBA as a Sandhill Crane staging and roosting area. Bulleted draft strategies or actions follow each draft goal and objective. The suggested group or person responsible for implementation is listed in brackets, followed the action's suggested priority: H = high, M = moderate, L = low, or ongoing. The IBA partnership is encouraged to establish a priority for undertaking or implementing the objectives and actions. Implementation will depend upon the interest and commitment of stakeholders, as well as the availability of resources.

People and agencies involved in implementation (and acronyms):

OMNR	Ontario Ministry of Natural Resources
MNC	Manitoulin Nature Club
FON	Federation of Ontario Naturalists
CWS	Canadian Wildlife Service
NCC	Nature Conservancy of Canada
MT	Manitoulin Tourist Board
SC	IBA Steering Committee

Draft Vision

The Spring Bay Important Bird Area recognises the importance of south-central Manitoulin Island, particularly Marsh Lake, for congregating Sandhill Cranes, and will work to protect conditions that support cranes, for their benefit, and so that they can be observed, studied, and enjoyed.

Draft Goal, Objectives, and Actions

1. Describe and document the fall Sandhill Crane activity in Spring Bay IBA

    a) Monitor crane activity in the general area, and specifically on Marsh Lake

        - Secure the resources and develop volunteer interest to undertake a monitoring program (ongoing) (MNC)
        - Monitor cranes from September to mid-November, keeping a database of relevant information (ongoing) (MNC)
        - Document feeding locations and movement patterns (ongoing) (MNC)
        - Monitor human activities on and around Marsh Lake (ongoing) (MNC/ MNR/ local residents)

b) Identify other sites where Sandhill Cranes may potentially be roosting

- Monitor other potential roosting sites (identified on Figure 1) within the IBA to determine whether or not they are used as roosts (H) (MNC)
- Log all information on additional crane roosts with the OMNR, the IBA data base and the FON (M) (MNC, MNR, FON)

2. Protect roosting and staging areas from disturbance, development, or activities that threaten the value of the area for cranes.

a) Work with landowners to develop stewardship approaches that embrace the vision of the IBA

- Consult with landowners to explore means of protecting both the crane roost at Marsh Lake and any additionally discovered roosts (ongoing) (MNC/ MNR/ FON)
- Discourage the public from visiting the sensitive parts of the IBA (i.e., Marsh Lake) (ongoing) (MNC/ SC)
- Avoid hunting in the western bay of Marsh Lake (H) (SC)
- If possible, limit hunting activity on Marsh Lake to times when the cranes have dispersed to feeding areas, and end hunting prior to sunset, or before the cranes return to their nocturnal roost (H) (SC)
- Work with local farmers or farm groups to develop stewardship approaches to protect foraging cranes as well as farm crops (M) (SC)

b) Explore options to permanently protect the site from development

- Explore interest in long-term protection of site with interested landowners and organizations involved in land protection (M) (SC, MNR, FON)

3. Promote the study and observation of Sandhill Cranes in southern Manitoulin Island, for the benefit of the local economy, while respecting the needs of the cranes for safe roosts

a) Undertake ways of celebrating the annual migration of Sandhill Cranes

- Continue undertaking a "Crane Festival" (ongoing) (local naturalist clubs, MT)

b) Work with local businesses to promote the Crane Festival specifically and birding/natural history opportunities generally

- Hold a dedication ceremony for the IBA (M) (SC)
- Produce print resources such as a flyer on the IBA that would attract eco-tourists (M) (SC, MT)

- Install an IBA plaque in Little Current (M) (SC)
- Install IBA "road signs" at road boundaries into the IBA (L) (SC)
- Promote the IBA with the Manitoulin tourist Association and other groups that could benefit from the ecotourism side of the IBA (M) (SC)

4. Determine the natural and biophysical significance of crane roost sites within the IBA

a) Encourage a proper biophysical inventory of roost sites and determine their regional significance

- Describe the plant communities and main species of Marsh Lake (done) (SC)
- Encourage OMNR to conduct a wetland evaluation of Marsh Lake and other roost sites (M) (SC, OMNR)
- Encourage a palaeontologist to assess the fossil beds on the alvar (L) (SC, MNR)
- Assess the significant of the alvar ecosystem within the IBA (M) (MNR, NCC)

Implementation

Implementation of this plan will be dependent upon the interest and energy of the Manitoulin Nature Club and other stakeholders. While this IBA appears secure at the moment (no imminent threats), some potential threats related to disturbance by potential users of Marsh Lake need to be addressed. Also, the issue of cranes and unharvested crops requires addressing. It would be most valuable to monitor other potential roosting sites to better understand the extent of the population and the range of sites available for secure roosting. While major resources are not necessary for this plan, other aspects are, including volunteer time, reimbursement for travel to monitor, and meetings and discussion with landowners and farmers. The Steering Committee should continue, in some form, to establish priorities and assist in obtaining resources for these actions. Below is a sample chart to assist the Steering Committee in establishing priorities for implementation.

Table 1. Sample Planning Chart

Objective	Strategies	Priority Objectives	Priority actions (order)	Lead responsibility	Cost (in priority order)	Timing	Complexity
A. Locate and monitor other roosts	1. Volunteer, compensate, schedule	high	1	MNC	$500	annual	medium
B. Meet with land owners about Marsh Lake use	1. Consultation, stewardship	high	2	SC	N/A	as needed	high
C. Enhance visitor experiences	1. Install plaque 2. Install signs 3. Pamphlets 4. Events	high	3 4 2 1	TRCA	1K 1K 1K -	start 2002	high

11.0 Evaluation

Planning in complex circumstances should include a system of evaluating progress, rethinking goals and objectives, and revising actions. This iterative approach to planning means not only that the plan is open to revision but also that evaluation and revision are a fundamental part of the planning process. The FON and its national partners are committed to supporting IBAs in plan implementation. Local stakeholders have already invested in the IBA and have a stake in its success.

An annual update on the conservation plan implementation would be of great value to the CNF, FON, and BSC. As Spring Bay has joined the global family of IBAs, information on Spring Bay IBA will be incorporated into BirdLife's global IBA database. This database will be used to report on conservation progress in IBAs. The information required is listed below.

- summary of general progress by the stakeholders group
- update on actions, objectives, and goals
- changes in actions, objectives, and goals (explain why changes were needed)
- any changes in threats affecting the IBA species and site
- copies of any media coverage or materials produced
- an updated list of groups involved in the stakeholder group
- successes and failures within the IBA.

12.0 References

Algonquin Eco Watch Group. (n.d.) http://www.algonquin-eco-watch.com/ecotourism.htm (2000).

Bent, A.C. 1926. *Life Histories of North American Marsh Birds*. Bulletin of the U.S. National Museum, No. 113. Reprinted by Dover, New York.

Canadian IBA Database. 1999. IBA Site Summary – Spring Bay (CAON151C). Bird Studies Canada/Canadian Nature Federation.

del Hoyo, Josep, ed. 1992. *Handbook of the Birds of the World*. Vols. 1-5. Lynx Edicions, Barcelona, Spain.

Ecological Monitoring and Assessment Network (EMAN). Environment Canada. (n.d.) http://www.cciw.ca/eman-temp/intro.html (May 2000).

Godfrey, W.E. 1986. *The Birds of Canada*. Rev. ed. National Museum of Canada, Ottawa, Ont.

Goodwin, C.E. 1995. *A Bird-Finding Guide to Ontario*. Rev. ed. University of Toronto Press, Toronto, Ont.

Grooms, Steve. 1992. *The Cry of the Sandhill Crane*. Northword Press, Minocqua, Wisc.

Jackson Audubon Society Phyllis Haehnle Memorial Sanctuary Sandhill Crane Count. (n.d.) http://www.audubon.org/chapter/mi/jackson/haehnle_cranecount.htm (2000).

Jasper-Pulaski Fish and Wildlife Area. (n.d.) http://dcwi.com/~eric/goot/jasper.htm (2000).

Jones, Judith. 1998. "Spirit Island." *Seasons* No. 38. Federation of Ontario Naturalists, Don Mills, Ont.

Lampart, 1996.

Letourneau, V. and A. Morrier. 1996. "Sandhill Crane." In *The Breeding Birds of Quebec: Atlas of the Breeding Birds of Southern Quebec* (J. Gauthier and Y. Aubry, eds.). Association quebecoise des groupes d'ornithologues, Province of Quebec, Society for the Protection of Birds, Canadian Wildlife Service, Environment Canada, Quebec Region, Montreal, Que.

Lumsden, H.G. 1987. "'Sandhill Crane' Species Account." In *Atlas of the Breeding Birds of Ontario* (M.D. Cadman, P.F.J. Eagles, and F.M. Helleiner, eds.). University of Waterloo Press, Waterloo, Ont.

Manitoulin Island: Communities of Manitoulin Island (n.d.)
http://www.manitoulin-island.com/communities/index.html (May 2000).

Nicholson, J.C. 1972. *The Birds of Manitoulin Island: A Species Accounts Summary*. N.p., Sudbury, Ont.

North American Crane Working Group. 1999. http://www.portup.com/~nacwg/home.htm (May 2000).

Pedler, John H., and R. Kenyan. 1997. "An Update on the Status of the Sandhill Crane in Northern and Central Ontario." *Ontario Birds* 15, no. 1: 4-13.

Phyllis Haehnle Sanctuary, Jackson County, Mich. http://www.audubon.org/chapter/mi/jackson/haehnle_index.htm

Soothill, Eric and Richard Soothill. 1982. *Wading Birds of the World.* Blandford Books, Poole, Dorset, U.K.

Tacha, T.C., S.A. Nesbitt, and P.A.Vohs. "1992 Sandhill Crane (*Grus canadensis*)." In *The Birds of North America*, No. 33 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, and the American Ornithologists' Union, Washington, D.C.

Wild Wings Heading South (PBS, the National Audubon Society and the BBC) (n.d.) http://www.pbs.org/audubon/wildwings/sandhillcrane.html (May 2000).

Personal communications

Chris Bell, 2000
Julie Craves 2000
Brad Gerrie, Ontario Ministry of Natural Resources, 2000
Steve Hall, 2001
John Lemon, 2000
William Wilson, 2000

Appendix 1 IBA Program Partners

BirdLife International (BL)

A pioneer in its field, BirdLife International (BL) is the first non-government organization dedicated to promoting worldwide interest in and concern for the conservation of all birds and the special contribution they make to global biodiversity. BL operates as a partnership of non-governmental conservation organizations, grouped together within geographic regions (e.g., Europe, Africa, Americas) for the purpose of planning and implementing regional programs. These organizations provide a link to on-the-ground conservation projects that involve local people with local expertise and knowledge. There are currently 20 countries involved in the Americas program throughout North, Central, and South America. For further information about BirdLife International, check the following website: http://www.birdlife.net.

The Canadian Important Bird Areas Program has been undertaken by a partnership of two lead agencies. The Canadian Nature Federation and Bird Studies Canada are the Canadian BirdLife International partners.

The Canadian Nature Federation (CNF)

The Canadian Nature Federation is a national conservation organization with a mission to be Canada's voice for the protection of nature, its diversity, and the processes that sustain it. The CNF represents the naturalist community and works closely with its provincial, territorial and local affiliated naturalists organizations to directly reach 100,000 Canadians. The strength of its grassroots naturalists network allows it to work effectively and knowledgeably on national conservation issues that affect a diversity of ecosystems and human populations in Canada. The CNF also works in partnership with other environmental organizations, government, and industry, wherever possible. CNF's approach is open and co-operative while remaining firm in its goal of developing ecologically sound solutions to conservation problems. CNF's website is http://www.cnf.ca

Bird Studies Canada (BSC)

The mission of Bird Studies Canada is to advance the understanding, appreciation and conservation of wild birds and their habitats, in Canada and elsewhere, through studies that engage the skills, enthusiasm and support of its members, volunteers, staff and the interested public. BSC believes that thousands of volunteers working together, with the guidance of a small group of professionals, can accomplish much more than could the two groups working independently. Current programs collectively involve over 10,000 volunteer participants from across Canada. BSC is recognised nation-wide as a leading and respected not-for-profit conservation organisation dedicated to the study and understanding of wild birds and their habitats. BSC's website is http://www.bsc-eoc.org

Federation of Ontario Naturalists (FON)

The Federation of Ontario Naturalists (FON) protects Ontario's nature through research, education, and conservation action. FON champions wildlife, wetlands, and woodlands and preserves essential habitat through its own system of nature reserves. FON is a charitable organization representing 15,000 members and over 105 member groups across Ontario. FON's website is http://www.ontarionature.org

Appendix 2Bird Species Observed on July 10 at Marsh Lake by Chris Bell and Ted Cheskey

Wetland Species on Marsh Lake

Common Loon *Gavia immer*
Pied-billed Grebe *Podilymbus podiceps*
American Bittern *Botaurus lentiginosus*
Great Blue Heron *Ardea herodias*
Mallard *Anas platyrhynchos*
Wood Duck *Aix sponsa*
Hooded Merganser *Lophodytes cucullatus*
Northern Harrier *Circus cyaneus*
Bald Eagle *Haliaeetus leucocephalus*
Caspian Tern *Sterna caspia*
Herring Gull *Larus argentatus*
Lesser Yellowlegs *Tringa melanoleuca*
Sandhill Crane *Grus canadensis*
Belted Kingfisher *Ceryle alcyon*
Yellow Warbler *Dendroica petechia*
Common Yellowthroat *Geothlypis trichas*
Swamp Sparrow *Melospiza georgiana*
Red-winged Blackbird *Agelaius phoeniceus*

Species Observed in Surrounding Woodland

Northern Flicker *Colaptes auratus*
Hairy Woodpecker *Picoides villosus*
Barn Swallow *Hirundo rustica*
Common Raven *Corvus corvax*
Black-capped Chickadee *Parus atricapillus*
House Wren *Troglodytes aedon*
Eastern Bluebird *Sialia sialis*
Hermit Thrush *Catharus guttatus*
Gray Catbird *Dumetella carolinensis*
Brown Thrasher *Toxostoma rufum*
Cedar Waxwing *Bombycilla cedrorum*
Magnolia Warbler *Dendroica magnolia*
American Redstart *Setophaga ruticilla*
Black-throated Green Warbler *Dendroica virens*
Ovenbird *Seiurus aurocapillus*
Chipping Sparrow *Spizella passerina*
White-throated Sparrow *Zonotrichia albicollis*
Song Sparrow *Melospiza melodia*
Purple Finch *Carpodacus purpureus*