

COMMUNITY CONSERVATION PLAN



for the

***DOUGLAS
MARSH
IMPORTANT
BIRD AREA***

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Executive Summary

Douglas Marsh Important Bird Area

"The rare Yellow Rail is one of the most sought-after breeding birds by ornithologists in North America" (Alvo and Robert 1998).

The Important Bird Area Program

The Canadian Important Bird Areas program (IBA) was established by the Canadian Birdlife partners, the Canadian Nature Federation and Bird Studies Canada, as part of an international effort to identify and conserve sites important to all bird species worldwide. In Manitoba, the IBA program was initiated in August of 1999 and is being delivered and administered by the Manitoba Naturalists Society.

Goals of the Canadian IBA Program

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; to determine the type of protection or stewardship required for each site; and to ensure the conservation of each site through partnerships with local community stakeholder groups who develop and implement an on-the-ground community conservation plan (CCP).

The Douglas Marsh

The Douglas Marsh is a very unique wetland dominated by sedges (*Carex spp.*) but interspersed with many

wetland plant species that are highly localized. Noteworthy botanical features of Douglas Marsh include two rare gentians, Felwort and Star Gentian. The Douglas Marsh is a boggy wetland with little open water except in the extreme east corner. It is a catchment basin for the sandy loam lands surrounding it and has generally shallow water levels. The east end (to the edge of the Carberry Sandhills and Shilo) of the marsh is comprised of willows and shrubs. To the north, south and west are agricultural lands, some grasslands, and stands of trees and shrubs.

Significant Bird Species

Douglas Marsh is recognized internationally for its Yellow Rail populations. The Yellow Rail is one of the ten most sought after species on bird watchers' life lists for North America. It is one of the most seldom seen nesting birds in Canada and the U.S.A, usually only heard "bone knocking" at night in a breeding location.

The Douglas Marsh is thought to have the largest concentrations of breeding Yellow Rails in southern Manitoba, and perhaps for all the Canadian prairies. In 1995, a minimum of 500 pairs were thought to have bred at Douglas Marsh, representing 11.6% of the global population. The number of Yellow Rails

found in Douglas Marsh in any given year depends upon water levels - Yellow Rails prefer low water levels. For example, in 2000 only a handful of Yellow Rails were heard in the marsh due to high water levels, the rails reportedly moved into more suitable habitats in Manitoba.

Other bird species attracting birders to Douglas Marsh include Virginia and Sora Rails, Sedge Wren, Le Conte's and Sharp-tailed Sparrows. Waterfowl also use portions of the marsh.

Threats

Threats to Yellow Rail habitat at Douglas Marsh include beavers, ecotourism, and wetland loss.

Conservation Efforts

The Brandon Naturalists Society, part of the Douglas Marsh Working Group, (DMWG) is leading conservation efforts in the Douglas Marsh. The initial focus of DMWG will be the area immediately south of the town of Douglas, primarily along Provincial Highway #340.

The DMWG has identified the following concerns linked to ecotourism - loss of habitat and trampling of habitat by birders; trespassing by birders on private land; and safety issues relating to vehicles of birders and agricultural equipment sharing a narrow strip of Highway #340 during the night. An additional concern is the deleterious impact of beavers on the sedge habitat.

The DMWG received a \$5,000 grant from the IBA Community Action Fund in 2000 to complete a vegetation and bird survey, to produce interpretive signs to be placed along Highway #340, and to work towards developing educational materials to be delivered into the Douglas School. A accurate survey of the birds of Douglas Marsh is required.

The working group will investigate the use of conservation easements, to be held by the Manitoba Habitat Heritage Corporation, to acquire habitat to provide a parking area and potential birding trail for ecotour groups. Ecotour groups will be contacted to inform them of the concerns of the working group that include habitat trampling and access to private lands without landowner permission. Efforts will be made to manage the impact of beavers.

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Citation.

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1.0 The IBA Program

The IBA program is an international initiative coordinated by BirdLife International, a global partnership of over 100 countries seeking to identify and protect sites important to the conservation of bird species worldwide. Through the protection of birds and habitats, IBA's also promote the conservation of the world's biodiversity. IBA programs are currently in place in Europe, Africa, the Middle East, Asia, and the Americas.

The Canadian IBA Program was initiated in 1996 by two Canadian environmental non-government organizations - Bird Studies Canada (BSC) and the Canadian Nature Federation (CNF). BSC will focus on data collection, site evaluation, and research of Canadian IBAs. The CNF will work on policy development, advocacy, communications, and development and implementation of IBA conservation plans. The Canadian IBA program forms part of the Americas IBA program which includes the United States, Mexico, and 17 countries in Central and South America.

The goals of the Canadian IBA program are to:

- identify a network of sites that illustrate and 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 between local stakeholder groups who develop and implement appropriate on-the-ground conservation plans; and
- establish ongoing local involvement in site protection and monitoring.

IBA sites are identified by the presence of birds 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 biome.
- 4) Sites where birds congregate in significant numbers when breeding, in winter, or during migration.

Important Bird Areas Funding

In October 1998, the Government of Canada announced funding for the Natural Legacy 2000 project, a major initiative under the Canadian Millennium Partnership Program. In total, \$10 million CDN were awarded to a consortium of

four of Canada's largest nature conservation organizations - the Canadian Nature Federation, World Wildlife Fund Canada, the Nature Conservancy of Canada and Ducks Unlimited Canada. A portion of the grant, \$1.25 million was awarded to the Canadian Nature Federation for the Canadian Birdlife International Partners to conduct the Important Bird Areas Program in Canada.

For further information on the Canadian IBA Program visit:

www.ibacanada.com

1.1 IBA Manitoba

The Manitoba Naturalists Society (MNS) is cooperating with the Canadian Nature Federation and Bird Studies Canada to deliver the conservation planning component of the Manitoba IBA program. The MNS is a non-profit organization made up of individuals who share a common concern for the well being of Manitoba's nature. It was founded in 1920 for the popular and scientific study of nature.

The MNS believes that the chance to experience an undamaged environment in peace and tranquility is a joy and a privilege. It also believes in the importance of sound stewardship, the wise use of our natural resources, fostering an awareness and appreciation of the natural

environment and an understanding of humanity's place therein.

The objectives of the MNS include:

- providing an association and a voice for those interested in natural history and the outdoors,
- to cooperate with individuals and organizations with similar objectives,
- to arrange educational and recreational programs and field trips to promote an understanding of the natural environment,
- to stimulate research and to record and preserve data and material in natural history and allied subjects,
- and to work for the preservation of our natural environment.

In 1996, a number of Manitoba birders gathered to begin identification of possible Manitoba IBA's. By 1999, over 100 locations were nominated for IBA status in Manitoba. In August of 1999, the MNS began IBA community conservation planning with the hiring of a conservation biologist. Shortly after, strategy meetings were held to further identify Manitoba IBA's with local community interest. Advice was solicited from groups including the Canadian Wildlife Service, Ducks Unlimited Canada, Manitoba Conservation, The Nature Conservancy of Canada, Manitoba Habitat Heritage Corporation and local birders.

2.0 Introduction

The Douglas Marsh

The Douglas Marsh is the best known location in southwestern Manitoba, and perhaps all of prairie Canada, to hear the nocturnal Yellow Rail. Numerous ecotour and birding tour groups visit the Douglas Marsh from across the world to hear, and if very fortunate see, the Yellow Rail. Cuthbert et al. (1990) suggested the best location to hear calling Yellow Rails is along the road leading south (Provincial Road #340) from the village of Douglas - in the evenings and during the night.

Douglas Marsh is located east of the City of Brandon, south of the town of Douglas, and north of the town of Shilo, Manitoba. It is a large, shallow marsh (referred to by some as a fen) that acts as a catchment basin for the sandy loam land surrounding it. It has little open water except for Sewell Lake at the eastern end of the marsh. Epinette Creek drains the marsh to the east.

Sedges and grasses are the dominant vegetation types. There are a number of rare and unusual botanical features that further highlight the Douglas Marsh. The marsh is hemmed in on three sides by sandy agricultural land. On the eastern side of the marsh lies the willow-shrub edge of the Carberry Sandhills.

To the north, south, and west is primarily agricultural land that consists of grasslands with substantial amounts of trees and shrubs. For the most part, the dominant plant species are the sedges. Birds that can be found in the Douglas Marsh include Yellow, Virginia and Sora Rails, Sedge Wren, Le Conte's and Sharp-tailed Sparrows. These are birds that are commonly associated with sedge habitats.

3.0 IBA Site Information

Name: Douglas Marsh Important Bird Area
IBA site number: CAMB002
Central Coordinates (Lat/Lon): 49° 84' N; 99° 65' W.
NTS Sheet or other site map: 62G /13

3.1 Plant Species

Cochrane Environmental Impact Assessment: An environmental impact assessment (EIA) addressing concerns surrounding the potential upgrade of PR #340, which impacts Douglas Marsh, was conducted by Cochrane Environmental Consultants Incorporated. The EIA was contracted by the Province of Manitoba Highways Department, which has interests in widening the road. A copy of the EIA report, dated March 1998, can be obtained from Manitoba Highways Department or the Winnipeg Public Library. The following information on Douglas Marsh was taken from the 1998 EIA.

It is important to note that the plant and bird surveys reported within the EIA examined habitat immediately alongside PR #340, and did not survey the entire extent of Douglas Marsh.

Douglas Marsh is known internationally for its high concentrations of Yellow Rails, however, its botanical features maybe more noteworthy. Not only does it contain some rare species, but it has several unusual plant species which are rare in many other parts of the province (Jackie Krindle, personal communication, 2000). For example, Pitcherplants are not rare in Manitoba, but they are an unusual feature in a wetland located in southwestern Manitoba. Vegetation surveys conducted in 1993 and 1994 (Cochrane Environmental Consultants Inc 1988) reported the following:

- 208 total plant species.
- only 23 of these 208 have been introduced.
- Seven of these 23 belong to the Leguminosae (legume or pea) family.
- *Sarracina purpurea* (Pitcherplant) is highly localized in the east end of Douglas Marsh.
- Two popular orchids, *Cypripedium calceolus* (Large Yellow Lady's Slipper) and *Cypripedium reginae* (Showy Lady's Slipper) were found in 1994.
- Three species of *Muhlenbergia* were observed *M. asperifolia* (Scratch Grass), *M. cuspidata* (Prairie Muhly) and *M. glomerata* var. *cinnoides* (Bog Muhly).
- Four *Carex* species were identified *Carex aquatilis* (Water Sedge), *C. lacustris* (Lakeshore Sedge), *C. lanuginosa* (Woolly Sedge) and *C. retrorsa* (Retrors Sedge).

- Two highly specialized plants found were *Utricularia intermedia* (Flat-leaved Bladderwort) and *Campanula aparinoides* (Marsh Bellflower).
- In areas holding water *Scirpus lacustris glaucus* (hard stem Bulrush), *S. lacustris validus* (soft stem Bulrush), *Typha angustifolia* (Narrow-leaved Cattail), *T. latifolia* (Cattail) and *Utricularia vulgaris* (Greater Bladderwort) were found.

3.2 Marsh Felwort

The significance of finding Marsh Felwort (*Lomatogonium rotatum*), in the Douglas Marsh is considered similar to the significance of finding Prairie Skink in the Carberry Sandhills. Both species are relic populations hundreds of kilometers away from the core population. It is an extremely rare species and has only been recorded once before in the province of Manitoba south of the Hudson Bay coastline (personal communication, Jackie Krindle, November 2000). It blooms in late August and early September and is located far beyond its normal range. In 1993, it was found west of PR #340 and within 200 meters of the railroad tracks due south of the southwest corner of the community of Douglas (Cochrane 1998).

4.0 IBA Species Information

The Douglas Marsh is recognized as a Globally Significant Canadian Important Bird Area (in the bird concentrations category) based upon breeding populations of the Yellow Rail. In 1995 a minimum of 500 pairs were thought to have bred at Douglas Marsh, representing 11.6% of the global population. It should be noted that this number was arrived at by extrapolation.

The Yellow Rail (*Coturnicops noveboracensis*) is protected under the *Migratory Birds Convention Act*, however, it is considered a high concern species in Canada and a species with a very high Canadian supervisory responsibility score, reflecting the high proportion (about 90%) of its global range in Canada (Dunn 1997). The breeding status in Manitoba is listed (Alvo and Robert 1998) as "Widespread, abundant, and apparently secure, but with concern for the long-term". The Yellow Rail is listed as "apparently secure" by the Conservation Status Ranks of the Birds of Manitoba (Duncan 1996).

Alvo and Robert (1998) recommended that the Yellow Rail be designated **Vulnerable** in Canada. A "Vulnerable" species is of special concern because of characteristics that make it particularly sensitive to human activities or natural events. Alvo and Robert (1998) noted that if they were to strictly apply the COSEWIC criteria, they might have to propose **Threatened** status because there is good evidence that the Canadian

population has declined and continues to decline. A "Threatened" species is likely to become endangered if limiting factors are not reversed. The Nature Conservancy has expressed some concern for the Yellow Rail's long-term status by providing a G4 ranking (apparently secure but of long-term concern) (The Nature conservancy 1998).

Although a precise estimate is not known, most observers agree that this site is significant for Yellow Rail and indeed may hold the largest colony of Yellow Rails south of the Hudson's Bay Lowlands. For example, a minimum of 500 pairs were thought by some to have bred at Douglas Marsh in 1995, representing 11.6% of the global population. It should be noted that this number was arrived at by extrapolation. Bill Koonz (personal communication, Manitoba Conservation 2000) suggested an estimate of 500 Yellow Rail pairs would seem very liberal. In comparison, this figure (500+ pairs) is also used by Alvo and Robert (1998) to represent the entire province of Manitoba.

The EIA conducted by Cochrane (1998) provided a list of 96 bird species that either breed or migrate through the Douglas Marsh. In a Saskatchewan survey, Le Conte's Sparrows, Sedge Wrens, Sharp-tailed Sparrows, Marsh Wrens and Sora Rails were also found associated with Yellow Rails (Luterbach 2000). The following table summarizes results of bird surveys that have been conducted in the Douglas Marsh.

Bird Species and Population Data for the Douglas Marsh.			
Species	Season	No. of birds Peak Day	References
Yellow Rail	B	500+ Pairs (1995)	David Hatch
Yellow Rail	B	11 nests (total 1993-1996)	Cochrane 1998
Yellow Rail	B	108 calls over 5-mins, June 1993	Cochrane 1998
Yellow Rail	B	89 calls over 5-mins, June 1994	Cochrane 1998
American Bittern	B	No data	Cochrane 1998
Virginia Rail	B	4 pairs June 1994	Cochrane 1998
Sora Rail	B	14 pairs June 1994	Cochrane 1998
Common Loon	B	1 pair (1994)	Cochrane 1998
Le Conte's Sparrow	B	3 nests June 1993	Cochrane 1998
Sharp-tailed Sparrow	B	10 males singing June 16 1994	Cochrane 1998
Mallard	B	18 Aug. 30 1993	Cochrane 1998
Mallard	FM	160 Sept. 19 1994	Cochrane 1998

Blue-winged Teal	B	2 broods 1994	Cochrane 1998
Sedge Wren	B	20 pairs June 1993	Cochrane 1998
Yellow Warbler	B	4 pairs June 1993	Cochrane 1998

4.1 Past Yellow Rail Surveys

The 1998 EIA surveyed the small portion of the Douglas Marsh along PR #340 for avian species including the Yellow Rail. Between 1993 and 1996, a total of 11 Yellow Rail nests were discovered along PR #340 (Cochrane 1998). Eight of the 11 nests were over water while the other three were in extremely dense sedge vegetation and on the ground. Nesting sites were found in water depths between one and ten centimeters.

The Cochrane (1998) EIA reported that the Douglas Marsh is full of highly irregular terrain with small tussocks and Yellow Rails were commonly flushed from these tussocks. In May and June of 1993, Yellow Rails were extremely common in the marsh (Cochrane 1998). When rains occurred in late June and July the Yellow Rails vacated the marsh. Areas that had been burnt over and had young sedge species growing were heavily used by Yellow Rails to call and feed but not nest (Cochrane 1998).

4.2 The 2000 Yellow Rail Survey

With funding from the IBA Community Action Fund, the Douglas Marsh Working Group contracted Leane Hill to conduct a survey of the Douglas Marsh in 2000. Hill (2000) identified five survey points (GPS waypoints available) in mid June 2000 – West PR #340 (landowner Helge Buchholz); East PR #340 (landowner Larry and Day Plowman), Moorehead (owned by CBR Cement Canada and rented to Barry Moorehead); Abey at Epinette Creek; and Ryan (landowner Klondike Farms). The survey reported on Yellow Rails, vegetation, and other associated bird species. Yellow Rails were surveyed on the evenings of July 2nd, 3rd, 16th, 17th, and 30th and were heard calling only on the evenings of July 2nd and 3rd. It was concluded that the survey was conducted over too short a period of time and too late in the breeding season to provide an accurate measure of the number of Yellow Rails in 2000.

Very few Yellow Rails were heard calling in the 2000 survey. Local residents and naturalists also reported hearing very few Yellow Rails in 2000. This may have been as a result of the above normal levels of precipitation that were received in 2000 in many areas of the province including the Douglas Marsh. The higher water levels resulted in a smaller than usual number of Yellow Rails using the Douglas Marsh in 2000, Yellow Rails moved into more suitable habitats across southern Manitoba and were found in areas that usually do not

support Yellow Rails (Bob Jones, personal communication, November 2000). It is evident that water levels determine the number of Yellow Rails breeding in the Douglas Marsh in any given year. Cuthbert et al. (1990) reported that in 1989 for example, the Douglas Marsh was dry and supported very few Yellow Rails. Luterbach (2000) arrived at the same conclusion, reporting that Yellow Rails are capable of opportunistic movements taking advantage of changing local conditions, a predictable strategy for a species with very specialized habitat requirements. Alvo and Robert (1998) also noted the amount of sedge meadow habitat at a given location and time is determined by climatic conditions - the availability of nesting sites varies from year to year with water levels. If wet conditions persist sedge meadows will become cattail/rush marshes, if dry conditions persist willows and grasses will encroach.

4.3 Natural History of the Yellow Rail



The Yellow Rail is considered a species of high concern in Canada and a species with a very high Canadian supervisory responsibility score (Dunn 1997).

The Yellow Rail (*Coturnicops noveboracensis*) is one of the smallest rails in the world weighing only 60 g and measuring 15-19 cm. It has been compared to a week-old chicken with buffy plumage with black and white markings, very short tail, light eyebrow, small bill reminiscent of a quail (genus name *Coturnicops* "that looks like a quail") and only slightly longer than a House sparrow (Alvo and Robert 1998). The Yellow Rail can be distinguished from the Sora Rail (*Porzana carolina*) by the black face and throat and the grey breast of the Sora Rail. Yellow Rails have a distinctive clicking tic-tic, tic-tic-tic call, like two stones being tapped together, that is often repeated in twos and threes. The Yellow Rail relies on its camouflage to protect itself and will not move when disturbed, as a result birds can actually be stepped upon by birders unaware of Yellow Rails present. They are extremely secretive, very difficult to flush, and never willingly give good views of themselves, unlike Soras which can be quite bold.

Distribution. The Yellow Rail breeds exclusively in Canada and the northern United States. It winters near the Atlantic coast from North Carolina to eastern Texas (Alvo and Robert 1998). The U.S. breeding distribution is largely limited to the north-central states where the southern limit of its range crosses northeastern Montana, central North Dakota, northern Minnesota, northern Wisconsin and northern Michigan. The species does not winter in Canada.

Canada comprises an estimated 90% of its breeding range (Alvo and Robert 1998). The two main breeding locations are in the prairies and in the Hudson/James Bay region. The known Canadian distribution includes the Mackenzie District of the Northwest Territories, British Columbia, eastern Alberta, central Saskatchewan, most of Manitoba and Ontario, the southern half of Quebec, New Brunswick, and northern Nova Scotia (Godfrey 1986).



Figure 1. Sites where the Yellow Rail has been found in Canada during the breeding season and where it could still occur (source: Alvo and Robert 1998).

Manitoba Populations. The Yellow Rail most likely nests across most of Manitoba. Alvo and Robert (1998) reported the only breeding site in the southern grassland region (southwestern corner of Manitoba) of Manitoba is the Douglas Marsh. There are 26 known breeding locations in Manitoba with more than 100 recent occurrences and at least 3000 individuals (Alvo and Robert 1998). Manitoba birders R. Koes and P. Taylor note that it is extremely difficult to estimate Manitoba populations or trends for vast areas of the province are not visited by birders (Alvo and Robert 1998). Alvo and Robert (1998) report roughly a

few thousand pairs of Yellow Rails breeding in the Hudson/James Bay region and another 2,000 pairs in the rest of Canada while there are estimated to be 600-750 breeding pairs in the United States.

General Biology of the Yellow Rail

Unless otherwise cited, the following information was taken from Bookhout (1995).

Breeding. Pair formation likely occurs on the breeding grounds and Yellow Rails probably start breeding when they are a year old. The nest is on the ground and covered with a concealing canopy of dead vegetation. More than one nest may be built with extra nests for brooding. The 7 to 10 eggs are laid a day apart. The incubation period lasts for 17 to 18 days and hatching is synchronous within a few hours. Hatching success can be very high. Chicks can feed themselves at five days, are no longer brooded at three weeks and fledge by 35 days. Males breed successively with two or more females. Males seem to patrol and defend territories. Detailed studies of the mating system are lacking.

Migration. First individuals arrive in southern Canada as early as 15 May. Fall migration does not start until the second half of September or early October. Yellow Rails migrate at night and may migrate in-groups. Males lack strong fidelity to breeding territories.

Food Habits. Snails are considered to be the most important food but Yellow Rails will eat invertebrates and seeds. However, Robert et al. (1997) collected stomach contents from 71 Yellow Rails and reported that beetles (Coleoptera comprised 62% of diet) were the most important food followed by spiders (Araneae). Seeds (comprised 32% of diet) of sedges (Cyperaceae), rushes (Juncaceae) were also consumed. Robert et al. (1997) concluded the Yellow Rails in southern Quebec uses an opportunistic foraging strategy, consuming arthropods and seeds during the summer, and the importance of snails appeared very low.

Behavior and Calling. Yellow Rails walk or run during daylight hours and almost never fly unless disturbed. It usually remains stationary in the vegetation rather than fleeing. Calling is a rapid series of usually five monotonous and metallic *ticks* or *clicks*, sounding like two pebbles tapped together: *tick-tick*, *tick-tick-tick*. Males click their "nuptial castanets" much more often and regularly at night than during the daytime. Birds can be heard calling at night for hours continuing until first light. Calling is carried out from a stationary point as the bird does not move about at night. Males cease calling in July. It has been suggested that Yellow Rails call very little or not at all on their wintering grounds.

63. *Porzana noveboracensis*. Yellow Rail. Water Sparrow.

Summer resident. Winnipeg: Summer resident; tolerably common (Hine). Fort George (Bell). Hudson's Bay (Hutchins). In a marsh near Fort Pelly I saw a few that I took for this species; they would fly and drop in the sedge; did not collect any (Macoun). At Carberry there is a small rail that is very common, but whether this or *P. jamaicensis* I can not be sure (Thompson).

On April 29, 1882, in the evening, while walking in the moonlight, by the slough, with W. Brodie, we heard a peculiar "tap-tap-tap"-ing that seemed to come from something in the near sedge. When we described the sound afterwards, at the house, old residents said it must have been a Stake-driver.

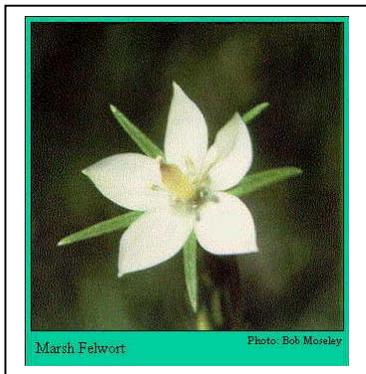
(Since writing the above I have become quite familiar with the Stake-driver, or bittern, and know now that the tapping was certainly not produced by it. This peculiar sound is a characteristic one of Manitoba marshes, and, unless it is the sound ascribed by Hutchins to the Yellow Rail, and described as resembling the striking of a flint and steel, I am at a loss to account for it.)

This rail I took for a *Porzana jamaicensis*, but had delayed making a careful diagnosis to a more convenient season, which never came, for the bird disappeared on the very first night of its captivity; so that I do not consider the identification at all safe. It may have been *P. noveboracensis*. One is as likely as the other; and I believe both will yet be found in the province. Certain it is that a little rail, other than the Carolina, is often flushed in the rushes, and flies with its legs dangling; never, however, for any great distance; generally, it merely dashes out of the sedge at one place and along a few yards to drop into another. Its diminutive size and aquatic habits have, in some localities, procured for it the name Water Sparrow.

Source: Ernest E. Thompson (1891). The Birds of Manitoba. Smithsonian Institution. Washington. 643 pp. (Ernest E. Thompson is more generally known as Ernest Thompson Seton. Seton was appointed Provincial Naturalist by the Manitoba Minister of Agriculture in 1883.)

5.0 Other Elements of High Conservation Interest

The Douglas Marsh has unique botanical features that are of high conservation interest. Not only does it contain some rare plant species, but also it has several species, which are rare in many other parts of the province. For example, pitcherplants are not rare in Manitoba, but they are an unusual feature in southwestern Manitoba. Two highly specialized plants are also found in the Douglas Marsh - *Utricularia intermedia* (Flat-leaved Bladderwort) and *Campanula aparinoides* (Marsh Bellflower).



Marsh Felwort *Lomatogonium rotatum*, is an extremely rare species and has only been recorded once before in the province of Manitoba south of the Hudson Bay coastline. It is a annual herb and member of the Gentian family. It flowers from August-September and has 5 united blue petals that form a rotate flower, rather than a tubular one. The stigmas are attached to the sides of the ovary. It is usually found in wet meadows, bogs, often in salty habitats. The leaves are opposite, simple, and those on the lower part of the stem oblong to oblanceolate, those on the upper part of the stem linear, up to 1 1/2 inches long, smooth, without teeth. The plant is listed as rare to uncommon provincially (S2S3) by Manitoba Conservation.

Star gentian (*Swertia perennis*) is up to 30 cm tall, with smooth leaves. Flowers are deep blue or purple and star-shaped. It is mainly found in the mountains at mid to high elevations near ponds and lakes, in peatlands, or in shrub wetlands (Cooper 1989). The plant is named for Emanuel Sweert (1552 – 1612), a 16th century Dutch botanist and author of an important catalogue of flowers.



6.0 Land Ownership and Use

The land within and surrounding the Douglas Marsh is private land used for agricultural purposes. There are numerous landowners (see appendix V for partial list) around the marsh. Some crown land exists in the northeast corner and it has been designated a Wildlife Refuge (see section 7.1).

7.0 Conservation Management

There have been no efforts to date to protect, restore or enhance the Douglas Marsh other than the Spruce Woods Wildlife Refuge (see section 7.1). In 1999, the portion of the Douglas Marsh (8,442-ha) inside the Shilo Military Base was protected/set aside by the Federal Department of National Defence (Bob Jones, personal communication, March 2001).

7.1 Spruce Woods Wildlife Refuge

The Spruce Woods Wildlife Refuge was established in 1911 by the Manitoba Department of Natural Resources (now Manitoba Conservation). The intent was to protect the area from hunting and trapping (Larry Bidlake, personal communication Jan. 2001). The refuge encompasses all portion of sections 4, 5, and 6 lying to the north of the Canadian National Railway right-of-way and sections 7, 8, 9, 16, 17, 18, 19 and 21 in Township 10, Range 15, West of the Principal Meridian and all those portions of sections 1, 2, 3, 4, 5 and 6 lying to the north of the Canadian National Railway right-of-way and sections 7 to 24 inclusive and sections 27, 28, 29 and 30 in Township 10, Range 16, West of the Principal Meridian. Presently, the area is primarily moose habitat.

8.0 Opportunities

8.1 Ecotourism: Economic Opportunity

Scace et al. (1992) defined ecotourism as:

"Ecotourism is an enlightening nature travel experience that contributes to conservation of the ecosystem while respecting the integrity of host communities".

The Douglas Marsh is an internationally known destination for bird and nature ecotour groups seeking the Yellow Rail. In general, tour groups arrive in Winnipeg include visits to Oak Hammock Marsh, Douglas Marsh, Southwestern Manitoba, Riding Mountain National Park, and then to Churchill. Some groups that are known to include the Douglas Marsh in their annual itineraries are included in the following table (these are groups that should be contacted by the DMWG, see section 10.2).

Ecotour groups known to visit the Douglas Marsh.

<i>Ecotour Group</i>	<i>Address</i>	<i>Contact & Website</i>	<i>Dates of Visit/Cost</i>
Field Guides Incorporated	9433 Bee Cave Road Building 1, Suite 150 Austin, Texas 78733	1-800-728-4953 http://www.fieldguides.com/churchill.html	June 1- 13 2000 & June 3 - 15 2000 (\$2495 from Winnipeg, USD)
Victor Emanuel Nature Tour's	PO Box 33008 Austin, TX 78764 (800) 328-8368	http://www.ventbird.com/db/index.html	June 06 - June 18, 2000 13.0 days - Limit 16 Cost from Winnipeg \$2695.00
Eagle-Eye Tours		1-800-373-5678 http://www.eagle-eye.com/Default.htm	June 3 - 12, 2000 June 2 - 11, 2001
WINGS	1643 N. Alvernon, Ste. 105 Tucson, AZ 85712, U.S.A. ph (520) 320-9868 FAX (520) 320-9373 wings@wingsbirds.com	http://www.widdl.com/wings/index.html	June 1-13 2000 (\$2310 USD)

Ecotourism is a significant component of the largest growth industry on Earth - tourism (Scace et al. 1992). Tourism worldwide is a \$250 billion dollar per year industry and growing dramatically (Scace et al. 1992). For example, bird watching in Point Pelee National Park in Ontario generates \$6 million annually. Bird watching is a significant component of

ecotourism. Bird watching is conservatively estimated to be worth more than \$20 billion each year in North America. The Douglas Marsh and the significance of the Yellow Rails is an identified ecotourist "product". Currently, the local community of Douglas and surrounding landowners who own the resource benefit very little, if at all, from ecotourism. In fact, birders have historically trespassed on private lands in their attempts to hear/observe Yellow Rails and in doing so have trampled sensitive Yellow Rail habitat and the birds themselves (see information under threats section below).

There is a need to market and coordinate ecotourism opportunities to benefit the local community of Douglas as well as to protect Yellow Rail habitat. Ecotourism can create jobs. The willingness of individuals to "pay substantially" for ecotourism opportunities is high, as evident in the fees charged for 13-day trips from Winnipeg (see above).

"Ecotourism can generate badly needed revenue for local and regional economies, heightened local awareness of the importance of conservation, and new incentives for governments and dwellers in and around appealing natural areas to preserve them Scace et al. (1992, p. 11)."

8.2 Educational Opportunities

The local community school at Douglas will benefit from educational programming for school children that will foster sound environmental values and make them aware of the international importance of the Douglas Marsh. The Douglas Marsh provides a "living classroom" in the backyard of the Douglas School and should be utilized in efforts to teach the importance of our wetlands and wildlife.

There is an opportunity to partner with the Yellow Quill Walking Trail currently being developed by The Nature Conservancy of Canada as well as the Criddle Homestead Redevelopment to foster further awareness of the Douglas Marsh area (Bob Jones, personal communication, March 2001).

9.0 Threats

9.1 Trespassing and Habitat Destruction

Ecotourism. The Douglas Marsh is a major stop for ecotourist groups visiting Manitoba from all across the world. Ecotourist groups/birders visit Douglas Marsh primarily seeking the Yellow Rail and a prairie wetland experience. While ecotourists provide

economic opportunities, they also pose a threat to Douglas Marsh habitat and the birds (and flora) using the Douglas Marsh. Ecotourists are known to degrade sensitive wetland habitats through damaging behaviors that include trampling habitat and vegetation (see the Anahuac Rail Buggy Ride below). Birders have trampled Yellow Rails in the Douglas Marsh in the recent past. Local landowners have raised their concerns regarding birders accessing private lands without permission (see comments of Mr. Helge Buchholz section 10.2). There is a need to develop sustainable and ethical ecotourism guidelines which will conserve and protect the sensitive wetland habitat of the Douglas Marsh from inappropriate ecotourism.

The following two examples demonstrate the deleterious impacts birders have had on Yellow Rails at the Anahuac National Wildlife Refuge in the USA and at Douglas Marsh.

Anahuac Rail Buggy Ride

"It was a service provided by the staff at the Anahuac National Wildlife Refuge in the USA. The ride was a famous must-do for many bird watchers. It has a small platform with a wooden railing all the way around and balloon tires. It was pulled by a tractor and it was the way to see black and yellow rails. It was like a children's carnival ride, except that we were seeing birds we rarely caught a glimpse of. We also managed to mangled, crush, and otherwise degraded a chunk of the marsh. There is no doubt that some of their nests disappeared under the balloon tires of the cart and tractor. It was, by today's standards, an ethical, environmental, ecological, bird-watching sin of significant proportion (Blom 1998)".

Yellow Rails have been killed in the Douglas Marsh by birders. The following example was taken from the Cochrane (1998) EIA.

"In June, 1995, while leading a group of naturalists through the marsh during the daylight, a study team member was following a trail that had been made in the marsh the previous night by another group of birders. The group of naturalists, led by a member of the study team, had spent the early part of the previous evening along the road, listening to Yellow Rails, but did not walk into the marsh. The second group had gone into the marsh with bright flashlights. Yellow Rails were heard calling all around the group, but the group in the marsh had been unable to observe the species itself. The following morning, the naturalists group walked into the marsh along the trail made the previous night and

soon after getting into the marsh, discovered a dead Yellow Rail that had been walked upon the previous night (p. 62)".

9.2 Habitat Loss

Beaver. Fluctuating water levels within the Douglas Marsh impacts the growth of sedges and grasses, and in turn the abundance and breeding activity of the Yellow Rail along PR #340 where culverts are present. In the Douglas Marsh, the beaver has deleterious impacts on Yellow Rail breeding habitat by blocking the culverts that run under PR #340 and by damming areas adjacent to the culverts. The resulting high water levels flood sedge covered habitat thereby degrading and eliminating Yellow Rail breeding habitat. For example, Cochrane (1998) reported that in 1994, when water levels became high of the east side of PR #340 due to beaver dams in the culverts, the Yellow Rail remained on the drier west side of the highway.

Cochrane Environmental Consultants Inc (1998) noted that Yellow Rails avoid areas of open water that are created by beaver activities -

"..the Yellow Rails require a dense cover of sedges and grasses. They require an abundance of old vegetation from previous years and they require shallow water that is normally, not more than 20-cm in depth. They also heavily utilize patches of dry ground in these wet situations. They avoid areas of open water and areas in which there is not dense, old vegetation for cover. Areas that have been burnt over and ultimately have young sedges growing thick in them are used to call and to feed, but examples of nests in this type of habitat were not observed. This type of habitat however, was very heavily used during the breeding season (p. 34)".

9.3 Loss of Wetland Habitat.

Loss of wetlands to human activity is the most serious factor affecting Yellow Rail populations (Bookhout 1995). Wetland drainage is responsible for the loss of the southernmost breeding areas during this century as well as the loss of breeding sites in northern U.S. (Bookhout 1995). Alvo and Robert (1998) suggest there is little doubt that considerable amounts of Yellow Rail habitat have been lost in Prairie Canada due to agricultural intensification. Agricultural intensification including draining, filling, haying and cultivating of wetlands, and clearing and cultivating of marginal lands all contributed to the loss of 40% of the original wetlands in Prairie Canada. Loss of Yellow Rail breeding habitat has been documented in Oregon, Ontario and Quebec.

The Douglas Marsh provides critical breeding habitat for the Yellow Rail and is of utmost importance that this wetland be protected. Further development and expansion of Provincial Highway #340 may reduce Yellow Rail habitat and further degrade the Douglas Marsh.

9.4 Other Threats

The following threats have also been identified and may potentially have deleterious impacts on Douglas Marsh habitat. The majority of the land is in private ownership, efforts should be made to ensure drainage of the marsh, which would destroy Yellow Rail habitat, does not occur. Over-grazing of uplands by cattle may also reduce Yellow Rail habitat. The accumulation of herbicides into the drainage basin from the spraying of cereal crops within the watershed may impact water quality. The loss of water from the aquifer in the general area to irrigation for potato farming may also represent a future threat (Bill Koonz, personal communication, Sept 2000). On northern breeding grounds, habitat loss due to the enormous Snow Goose populations on the West Coast of Hudson/James Bay has also impacted Yellow Rail habitat (Alvo and Robert 1998).

10.0 Conservation Goals and Objectives

Vision

The DMWG (see Appendix II for DMWG members) recognizes that ecotourism pressures and beaver activity has resulted in Yellow Rail breeding habitat destruction. Douglas Marsh, being an Important Bird Area, will be conserved in perpetuity for its importance to the international conservation of the Yellow Rail, other bird species, and unique flora, that provide economic, ecological, and educational benefits to the residents of Douglas and Manitoba. The designation of Douglas Marsh as an IBA site and the implementation of this CCP will provide a level of protection for the Douglas Marsh, Yellow Rails, as well as the other associated flora and fauna.

The Douglas Marsh CCP will address the following ecotour and habitat concerns. As time allows, additional threats recognized in section 9.4 should be addressed.

10.1 Monitoring Bird Populations & Education

<i>Item</i>	<i>Rationale</i>	<i>Current Status & Action</i>
<p>Overall lack of information on bird species using the Douglas Marsh. Water levels in any given year will dictate presence or absence of certain avian species such as the Yellow Rail.</p> <p>A vegetation survey is also required to assess habitat conditions.</p>	<p>Monitoring bird population trends and vegetation provides data necessary to formulate management actions.</p> <p>Survey efforts will focus around the Yellow Rail which is the keystone avian species providing Douglas Marsh with worldwide recognition.</p>	<ul style="list-style-type: none"> • Funding was received from the IBA CAF in 2000 to conduct a Yellow Rail Survey. A number of variables, including water levels, limited the scope of the 2000 survey and there is a need to conduct a more complete survey. • An attempt will be made to attract the interest of a graduate student to perform a more complete survey of the marsh. <p>Lead Agency: Douglas Marsh Working Group Timeline: Applications will be forwarded to funding agencies by Spring of 2001.</p>

10.1 Continued

<p>The wintering habitat of the Yellow Rail may represent the most critical aspect of Yellow Rail conservation.</p>	<p>Wintering Habitat is disappearing at an alarming rate.</p>	<ul style="list-style-type: none"> • There is a need to address loss of wintering habitat by national and international partners. <p>Agency: Canadian Nature Federation. Timeline unknown.</p>
<p>Foster community and ecotourist awareness regarding degradation of Yellow Rail habitat.</p>	<p>Increased awareness will decrease habitat trampling by birders visiting the Douglas Marsh.</p>	<ul style="list-style-type: none"> □ Funds have been received from the IBA CAF to construct educational signage targeting birders visiting the Douglas Marsh. <p>Lead Agency: Douglas Marsh Working Group. Timeline: Signage to be completed prior to March 2001 and erected in the spring of 2001.</p>

10.1 Continued

<p>Foster awareness on wetland conservation and the importance of the Yellow Rail in the Douglas Marsh.</p>	<p>Increase community awareness regarding the importance of wetlands such as the Douglas Marsh and the associated flora and fauna will provide support for local conservation efforts.</p>	<ul style="list-style-type: none"> A) Provide opportunities for the general public, especially youth groups, to visit Douglas Marsh. Community School Program B) Media Releases C) Letters to various ecotourism groups using Douglas Marsh D) Community and group presentations <p>Lead Agency: Douglas Marsh Working Group. Timeline: Winter/Spring 2001.</p>
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10.2 Ecotourism and Highway Safety

<i>Item</i>	<i>Rationale</i>	<i>Current Status & Actions</i>
<p>Douglas Marsh is an annual destination of numerous international bird tour groups.</p> <p>Birders and ecotour groups have historically trespassed on private lands without permission from local landowners. Birding tours do not approach landowners for permission to access their lands.</p> <p>Local landowners derive no direct benefits from birders.</p>	<p>There is a need to place some tourism-generated revenues into the hands of local landowners and local community of Douglas.</p> <p>Landowners would like to see some revenue in return for access to their land.</p> <p>Ensure ecotour groups are aware the Douglas Marsh is private land and permission is required.</p>	<ul style="list-style-type: none"> • Request cash contributions in exchange for access to private lands from Ecotour operators for local conservation initiatives. • Develop a local landowners cooperative through which birders can access private lands to view birds on a <i>fee-for-service basis</i>. <p>Lead Agency: Douglas Marsh Working Group. Timeline: Ecotour Groups to be contacted by March 31 2001.</p>
<p><i>Highway Safety</i></p> <p>Birders using PR #340 do so at night when Yellow Rails are calling. Landowners and local residents also use the road to transport large agricultural equipment.</p> <p>The road is very narrow and the potential for a serious accident is high.</p>	<p>The potential for collisions between agricultural equipment and birders is high.</p> <p>There is a need to address highway safety issues.</p>	<ul style="list-style-type: none"> • Possible construction of a parking area off PR #340 for birders. Conservation easements will be used to acquire necessary land. <p>Lead Agency: Douglas Marsh Working Group. Timeline: CE's will be explored with potential landowners over the winter of 2000-2001.</p>

Note: Mr. Helge Buchholz, a local landowner who provided access for the 2000 survey, expressed his displeasure of trespassers on his land. He suggested that if Ducks Unlimited or any other organization interested in protecting or studying the Yellow Rail had a desire to rent or lease his land he would be interested. This represents a landowner for the DMWG to contact and pursue a potential conservation easement.

10.3 Habitat Protection

<i>Item</i>	<i>Rationale</i>	<i>Current Status & Actions</i>
<p>Yellow Rail sedge habitat is frequently flooded/degraded by Beaver activity along Highway #340.</p>	<p>Beavers dam culverts (6 under Highway #340) that results in flooding breeding habitat on east or west site of highway. To encourage Yellow Rail nesting, water levels must be kept low (1-10 cm).</p>	<ul style="list-style-type: none"> • In cooperation with Manitoba Highways and Manitoba Conservation, Beaver Control Levelers (Beaver Deceivers??) will be pilot tested in 2001. <p>Lead Agency: Manitoba Conservation and Manitoba Highway. Timeline: Pilot Project to be initiated in spring 2001. If success, expanded in 2002.</p>

<p>Birders are using private lands without permission from landowners and trampling Yellow Rail habitat.</p>	<p>There is a need to provide birders with infrastructure to eliminate trespassing and habitat degradation.</p>	<ul style="list-style-type: none"> • There is potential for a conservation easement, to be held by the Manitoba Habitat Heritage Corporation, to acquire land to provide a parking area and walking trail. <p>Lead Agency: Douglas Marsh Working Group. Timeline: Walking trail to be developed after land acquired through CE.</p>
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11.0 Evaluating Success

The Douglas Marsh IBA community conservation plan will be reviewed on an annual basis by the present DMWG group which is comprised of community stakeholder groups, private environmental groups, and government groups.

Acknowledgements

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References

- Alvo, R. & M. Robert. 1998.** Status report on the Yellow Rail (*Coturnicops noveboracensis*) in Canada. Committee on Status of Endangered Wildlife in Canada (COSEWIC) and Canadian Wildlife Service (Quebec Region). 72 pp.
- Blom, E.A.T. 1998.** The Changing Landscape of Bird Watching Behavior. Bird Watcher's Digest. September/October 1998. 71-75 p.
- Brookhout, T.A. 1995.** Yellow Rail (*Coturnicops noveboracensis*). The Birds of North America, No. 139 (A. Poole and F. Gill, eds). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists Union, Washington, D.C.
- Cochrane Environmental Consultants Inc. March 1998.** Environmental Impact Assessment for the upgrading of PR 340. EIA prepared for Manitoba Dept. of Highways and Transportation, Winnipeg, Manitoba.
- Cooper, David J. 1989.** A Handbook of Wetland Plants of the Rocky Mountain Region. EPA Region VIII.
- Cuthbert, C.W., Horton, J.I., McCowan, M.W., Robinson, B.G. and N. Short. 1990.** Birder's Guide to Southwestern Manitoba. Brandon Natural History Society.
- Duncan, J.R. 1996.** Conservation status ranks of the birds of Manitoba. Manitoba Conservation Data Center MS Report Number 96-05, Winnipeg, Manitoba. 26 pp.
- Dunn, E.H. 1997.** Setting priorities for conservation, research and monitoring of Canada's landbirds. Technical Report Series No. 293, Canadian Wildlife Service, Environment Canada, Hull, Quebec, Canada.
- Eagles, P. 1997.** International Ecotourism Management: Using Australia and Africa as Case Studies. Paper prepared for the IUCN World Commission on Protected Areas, Protected Areas in the 21st century: From Islands to Networks.
- Hill, L. 2000.** A survey of Yellow Rails breeding in the Douglas Point Marsh, Manitoba; Sponsored by Important Bird Areas of Canada (IBA). Final Report June-August 2000. 23 pp.

Lane, J. 1962. Nesting of the Yellow Rail in Southwestern Manitoba. *The Canadian Field-Naturalist* 76(4):189-191.

Luterbach, B. 2000. Observations of Yellow Rails in Southern Saskatchewan. *Blue Jay* 58(2):63-65.

The Nature Conservancy 1998. Natural Heritage Central Databases. (Data on North American animals, developed in collaboration with the Association for Biodiversity Information and U.S. and Canadian Natural Heritage Programs and Conservation Data Centres).

Robert, M. and P. Laporte. 1999. Numbers and movements of Yellow Rails along the St. Lawrence River, Quebec. *The Condor* 101:667-671.

Robert, M. and P. Laporte. 1997. Field Techniques for studying breeding Yellow Rails. *J. Field Ornithology* 68(1):56-63.

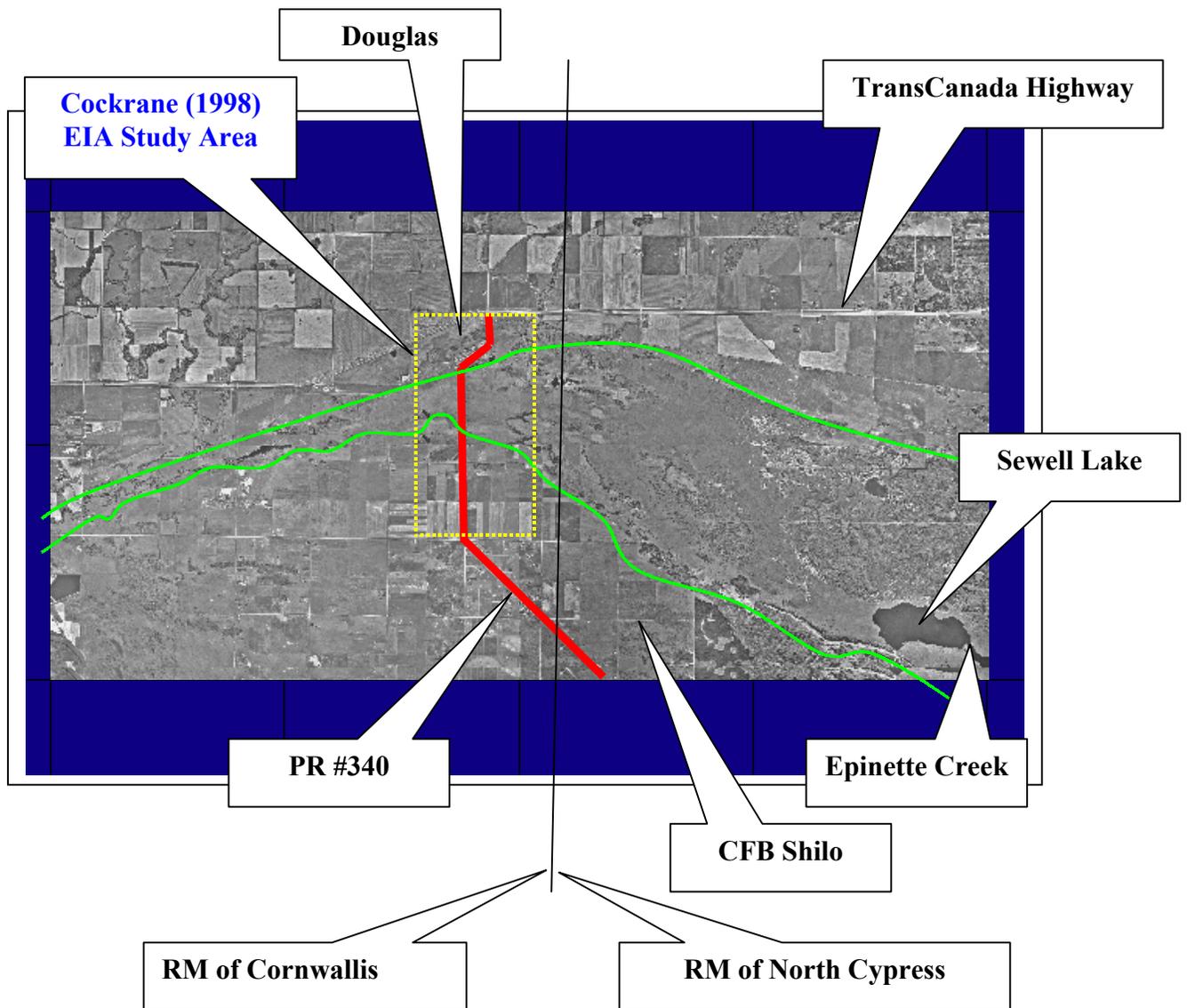
Robert, M., Cloutier, L. and P. Laporte. 1997. The summer diet of the Yellow Rail in southern Quebec. *Wilson Bulletin* 109(4):702-710.

Scace, R.C., E. Grifone, and R. Usher. 1992. Ecotourism in Canada. Canadian Environmental Advisory Council. Hull, Quebec.

Appendix I: Map of Douglas Marsh

GIS: Digital Orthophoto Tiles for Douglas Marsh

Brandon 2: 4505523; 4505521; 4405522; 4405523; 4505522; 4405524; 4405521; Brandon 3: 4605521; 4605524. Photo Dates October 1993.



Appendix II: Contacts for Douglas Marsh IBA & CCP.

<i>Name</i>	<i>Organization</i>	<i>Contact Numbers</i>
Cory Lindgren Community Conservation Planner	Manitoba IBA Box 1160, Stonewall, MB	Ph: 205-467-3269 Fx: 204-467-9028 C_lindgren@ducks.ca
Dave Clayton Project Co-Chair Biologist	President of the Brandon Naturalists Society & Ducks Unlimited Canada (Brandon),	Ph: 204-729-3511 D_clayton@ducks.ca
Louise M^cInnis Project Co-Chair Teacher	Douglas School 207 East Street	Ph: 204-763-8987 (Home) Ph: 204-7634480 (School) Tmcinnes@symjpatico.ca
John Hawkins	Landowner.	Not Available
Cal Cuthbert Biologist	Ducks Unlimited Canada (Brandon) & Ecotour Operator	Ph: 204-729-3500 C_cuthbert@ducks.ca
Jean Horton	Brandon Naturalists Society.	Ph: 204-728-4672
Shane Tornblom Field Manager	MB Habitat Heritage Corporation & Partners In Flight committee	Not Available

Dan Chranowski Biologist	Manitoba Conservation Brandon Office,	Ph: 204-726-6450 Dchranowski@nr.gov.mb.ca
Gerry Oliver	Ernest Thompson Seton Center.	Not Available
Larry Plowman Landowner	212 South Railway Street Douglas, Manitoba	Ph: 204-763-4348
Murry Richardson Landowner	Not Available	Not Available
Eldon Schmitz	Wilderness Club	EldonSchmitz@hotmail.com
Joe Romeo	Manitoba Highways Winnipeg	Not Available
Bob Jones Biologist	Manitoba Conservation 200 Saulteaux Cres. Winnipeg	Ph: 204-239-1803 Bjonesph@mb.sympatico.ca

Appendix III: Bird Species List (1993-1994).

Birds observed between June and November 1993, and April 15 and November 15 1994.
(Source: EIA conducted by Cochrane Environmental Consultants Inc. March 1998).

Common Name	Scientific Name
Common Loon	<i>Gavin immer</i>
Horned Grebe	<i>Pidiceps auritus</i>
American Bittern	<i>Botaurus lentiginosus</i>
Great Blue Heron	<i>Ardea herodias</i>
Snow Goose	<i>Chen caerulescens</i>
Canada Goose	<i>Branta canadensis</i>
Green-winged Teal	<i>Anas crecca</i>
Mallard	<i>Anas platyrhynchos</i>
Blue-winged Teal	<i>Anas discors</i>
Northern Shoveler	<i>Anas clypeata</i>
Gadwall	<i>Anas strepera</i>
Ring-necked Duck	<i>Aythya collaris</i>
Lesser Scaup	<i>Aythya affinis</i>
Osprey	<i>Pandion haliaetus</i>
Virginia Rail	<i>Rallus limicola</i>
Sora	<i>Porzana carolina</i>
American Coot	<i>Fulica americana</i>
Sandhill Crane	<i>Grus canadensis</i>
Lesser Yellowlegs	<i>Tringa flavipes</i>
Willet	<i>Catoptrophorus semipalmatus</i>
Upland Sandpiper	<i>Bartramia longicauda</i>
Common Snipe	<i>Gallinago gallinago</i>
Franklin's Gull	<i>Larus pipixcan</i>
Ring-billed Gull	<i>Larus delawarensis</i>
Black Tern	<i>Chlidonias niger</i>
Mourning Dove	<i>Zenaida macroura</i>
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Short-eared Owl	<i>Asio flammeus</i>
Common Nighthawk	<i>Chordeiles minor</i>
Belted Kingfisher	<i>Ceryle alcyon</i>
Hairy Woodpecker	<i>Picoides villosus</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Bank Swallow	<i>Riparia riparia</i>
Barn Swallow	<i>Hirundo rustica</i>
Blue Jay	<i>Cyanocitta cristata</i>
Black-billed Magpie	<i>Pica pica</i>
American Crow	<i>Corvus brachyrhynchos</i>
Common Raven	<i>Corvus corax</i>
Black-capped Chickadee	<i>Parus atricapillus</i>
Sedge Wren	<i>Cistothorus platensis</i>

Marsh Wren	<i>Cistothorus palustris</i>
Ruby-crowned Kinglet	<i>Regulus calendula</i>
Eastern Bluebird	<i>Sialia sialis</i>
Mountain Bluebird	<i>Sialia currucoides</i>
American Robin	<i>Turdus migratorius</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
European Starling	<i>Sturnus vulgaris</i>
Warbling Vireo	<i>Vireo gilvus</i>
Tennessee Warbler	<i>Vermivora peregrina</i>
Norther Flicker	<i>Colaptes auratus</i>
Northern Harrier	<i>Circus cyaneus</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Cooper's Hawk	<i>Accipiter cooperii</i>
Swainson's Hawk	<i>Buteo swainsoni</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Rough-legged Hawk	<i>Buteo lagopus</i>
American Kestrel	<i>Falco sparverius</i>
Yellow Rail	<i>Coturnicops noveboracensis</i>
Orange-crowned Warbler	<i>Vermivora celata</i>
Yellow Warbler	<i>Dendroica petechia</i>
Cape May Warbler	<i>Dendroica tigrina</i>
Yellow-rumped Warbler	<i>Dendroica coronata</i>
Palm Warbler	<i>Dendroica palmarum</i>
Blackpoll Warbler	<i>Dendroica striata</i>
Black-and-White Warbler	<i>Mniotilta varia</i>
American Redstart	<i>Setophaga ruticilla</i>
Northern Waterthrush	<i>Seiurus noveboracensis</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Wilson's Warbler	<i>Wilsonia pusilla</i>
American Tree Sparrow	<i>Spizella arborea</i>
Chipping Sparrow	<i>Spizella passerina</i>
Clay-coloured Sparrow	<i>Spizella pallida</i>
Savannah Sparrow	<i>Passerulus sandwichensis</i>
Le Conte's Sparrow	<i>Ammodramus leconteii</i>
Sharp-tailed Sparrow	<i>Ammodramus caudacutus</i>
Song Sparrow	<i>Melospiza melodia</i>
Lincoln's Sparrow	<i>Melospiza lincolni</i>
Swamp Sparrow	<i>Melospiza georgiana</i>
White-throated Sparrow	<i>Zonotrichia albicollis</i>
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>
Harris' Sparrow	<i>Zonotrichia querula</i>
Dark-eyed Junco	<i>Junc hyemalis</i>
Lapland Longspur	<i>Calcarius lapponicus</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Western Meadowlark	<i>Sturnella neglecta</i>
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>
Rusty Blackbird	<i>Euphagus carolinus</i>
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>

Common Grackle	<i>Quiscalus quiscula</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Northern Oriole	<i>Icterus galbula</i>
Common Redpoll	<i>Carduelis flamma</i>
Pine Siskin	<i>Carduelis pinus</i>
American Goldfinch	<i>American Goldfinch</i>
House Sparrow	<i>House Sparrow</i>

Appendix IV: IBA Canada Partners

BirdLife International

A pioneer in its field, BirdLife International (BL) is the first non-government organization dedicated to promoting world-wide interest in and concern for the conservation of all birds and the special contribution they make to global biodiversity. BirdLife 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 web site: <<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 our

provincial, territorial and local affiliated naturalists organizations to directly reach 100,000 Canadians. The strength of our grassroots naturalists' network allows us 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. Our approach is open and cooperative while remaining firm in our goal of developing ecologically-sound solutions to conservation problems. CNF's web site 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. Bird Studies Canada 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.

Bird Studies Canada is recognized nation-wide as a leading and respected not-for-profit conservation organization dedicated to the study and understanding of wild birds and their habitats. Bird Studies Canada's web site is <<http://www.bsc-eoc.org/>.

Appendix V: Landowners**List of some property Owners Douglas Marsh Area (RM of Cornwallis and RM of Elton).**

<i>Legal Description</i>	<i>Property Owner</i>	<i>Address</i>	<i>City</i>	<i>Postal Code</i>
NE 23-10-17 NW 23-10-17 SE 23-10-17 SW 23-10-17	Interlake Potato Farms	Box 155	Teulon, MB	ROC 3B0
NW 24-10-17 SE 24-10-17	J & L Evergreen Farms	Box 436	Douglas, MB	ROK 0R0
SW 24-10-17	Egbert Goumans Jocelyn Goumans	Box 1200	Shilo, MB	ROK 0R0
SE 25-10-17 SW 25-10-17 SE 26-10-17 SW 26-10-17 SE 27-10-17 SE 27-10-17	MB Hydro	Box 815	Winnipeg, MB	R3C 2P4
SW 25-10-17 SE 26-10-17	Ernest Mitchell Norman Richardson Muriel Richardson Klondike Farms	Box 224	Douglas, MB	ROK 0R0
NE 26-10-17 NW 27-10-17 SE 27-10-17	Norman Richardson	Not Available	Douglas, MB	ROK 0R0
NW 26-10-17 SW 26-10-17 SW 27-10-17	Norman Richardson Muriel Richardson	Not Available	Douglas, MB	ROK 0R0
NE 27-10-17 SW 35-10-17 NE 34-10-17 SE 34-10-17	James Wells Edna Wells Cindy Wright	Box 211	Douglas, MB	ROK 0R0
SW 34-10-17	C & P Wheaton	Box 24	Douglas, MB	ROK 0R0
NE 35-10-17	R. Muirhead		Douglas, MB	ROK 0R0
NW 35-10-17 SE 1-11-17 (E1/2)	David Blair	Box 28	Douglas, MB	ROK 0R0
NE 36-10-17 SE 36-10-17	HMQ Manitoba Municipal Advisory	607-800 Portage Ave.	Winnipeg, MB	R3G ON4
NW 36-10-17	K. Moorehead A. Moorehead		Douglas, MB	ROK 0R0
SE 1-11-17 (W1/2)	Barry Moorehead		Douglas, MB	ROK 0R0
SW 1-11-17	D & A Mitchell V & E Mitchell White Rock Quarries	2100 McGillvary Blvd.	Brandon, MB Brandon, MB Winnipeg, MB	R7A 5R9 R7B 3S8 R3T 3N0
2-11-17	CBR Cement Canada	RPO Redwood Centre, Box 4080	Winnipeg, MB	R2W 5K8

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