WATERFOWL HABITAT PRESERVATION: THE POTENTIAL ROLE OF FEDERAL AND MANITOBA LEGISLATION

Ву

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CHAPTER I

INTRODUCTION

1.1 Background

An important element of Canada's wildlife heritage is migratory birds. Migratory birds, especially waterfowl, depend on wetlands for food, nesting, brood habitat, protective cover and staging areas. Recent concern has been expressed over loss of an estimated 3 million acres (1.2 million hectares) of wetland habitat in the prairies alone. (Canada, Department of Environment, 1980, p. 21).

Although direct and indirect agricultural practices have a substantial impact on waterfowl habitat, reasons for the decline of habitat are numerous. In the Minnedosa pothole region of southwestern Manitoba, the problem of declining waterfowl habitat can be partially attributed to efforts by individual landowners to improve their standard of living. Often, farmers derive economic benefits by increasing their cultivated land base at the expense of wetlands (Colpitts, 1974). Other explanations for declining waterfowl habitat include:

- 1. Drought
- 2. Physical adjustments to watercourses
- 3. Urban expansion
- 4. Increased agricultural production
- Federal, provincial and municipal legislation affecting land use.

This research focuses on the potential role of federal and Manitoba legislation on waterfowl habitat.

The abundance and distribution of habitat is affected by various programs and activities of the federal and Manitoba government. At both levels of government, legislation plays an important role in the preservation of waterfowl habitat. Manitoba legislation delegates authority to municipal governments to pass bylaws affecting land use. A 1980 preliminary legislative review by Canadian Wildlife Service relating to migratory bird habitat, emphasized the relationship between legislation and waterfowl habitat.

Federal and Manitoba legislative acts may lead to a loss of waterfowl habitat by the implementation of regulations, taxation policies and subsidization programs. A Manitoba agricultural drainage study concluded, for example, that programs such as the Manitoba property tax system and the Canada Grain Quota Allotment System provide incentives for farmers to invade non-arable agricultural land (Zittlau, 1979).

Federal acts that have significant impact on waterfowl habitat have been designated by Canadian Wildlife Service (Rakowski, P. W. and D. R. Jurick, 1980). They include: the Income Tax Act, Canadian Wheat Board Act and the Depart-

ment of Regional Economic Expansion Act. 1 Two example programs administered by the Department of Regional Economic Expansion are the Prairie Farm Rehabilitation Administration (P.F.R.A.) and the Agriculture and Rural Development Administration (A.R.D.A.). These programs concentrate on soil management schemes, reclamation of poorly drained lands and irrigation projects resulting in potential impacts on waterfowl habitat.

1.2 Problem Statement

There are federal and Manitoba programs evolving from legislative acts that may accelerate the loss of waterfowl habitat. Many of the programs controlled by the Department of Agriculture (federal and Manitoba) include subsidies and cost-sharing agreements. These programs generally

At the initiation of this report and throughout its development, the Department of Regional and Economic Expansion (D.R.E.E.) was included in the legislative review. In January 1982, the federal government dissolved D.R.E.E. The Department of Regional Industrial Expansion (D.R.I.E.) is the replacement. Presently, no details on the new department are available, although two task forces have been initiated to study programs and personnel involved in the restructure. This present lack of detail on the Department of Regional Industrial Expansion must be realized in further reference to D.R.E.E. throughout this report.

encourage the expansion of agricultural activities which may encroach on waterfowl habitat. The potential role of federal and Manitoba legislation concerning the preservation of waterfowl habitat has not been documented. This research has attempted to determine this role.

1.3 Objectives

The purpose of the research was:

- to identify and evaluate federal and Manitoba legislation that may affect waterfowl habitat;
- 2. to determine how the identified legislation affects waterfowl habitat; and
- to outline recommendations and alternatives that will be beneficial to a regional waterfowl habitat preservation strategy.

1.4 Methods

The research methods were divided into four sections:

- 1. Selection
- 2. Evaluation
- 3. Classification
- 4. Summary

1. Selection

A Canadian Wildlife Service legislative review

(Rakowski, P. W. and D. R. Jurick, 1980) identified

several key pieces of legislation that may affect waterfowl habitat and warranted further investigation. These
identified federal and Manitoba statutes comprised
a major portion of the legislation selected for this investigation. Since the Canadian

Wildlife Service report was not exhaustive in terms of designating legislation, other federal and Manitoba statutes that exhibited potential impact on waterfowl habitat were included in this review, subject to study objectives.

2. Evaluation

The evaluation of selected legislation consisted of identifying sections of legislation and implemented programs that implied actual or potential impact on waterfowl habitat. Reasons for the potential or actual impact were stated in particular cases. Where applicable, the following data were summarized for selected legislative programs:

- a) goals, objectives and length of the program;
- b) program expenditures and cost sharing agreements;
- c) program eligibility and assistance.

3. Classification

The evaluation subjectively classified the legislation into one of three categories which were:

- Category 1 -- impact on waterfowl habitat not recognizable or recognizable but of very limited significance
- Category 2 -- impact on waterfowl habitat recognizable but not readily quantifiable.

Category 3 -- impact on waterfowl habitat observable, significant and possibly quantifiable.

In most cases, associated programs or projects fell exclusively into one category.

4. Summary

The results of selection, evaluation and classification of the legislation reviewed in this report is presented in summarized form by department. The degree of impact on waterfowl habitat is discussed in the summary.

1.5 Definition of Terms

- Agricultural Margin a line which, at any point in time separates that area wherein agricultural production is economic from that part of the nation where it is not. The agricultural margin incorporates many other factors which influence the location of the margin. These include land capabilities, climate, accessibility, management capabilities and expectations of what constitutes a reasonable return on investment (Beattie, K. G., et al., 1981)
- Marginal Lands those lands which at any point in time are at or near the economic margin for agriculture. Many social, economic and environmental conditions are associated with the agricultural margin. Waterfowl habitat may comprise portions of marginal land (Beattie, K. G., et al., 1981).

Migratory game birds -

- a) a) Anatidae or waterfowl, including brant, wild ducks, geese and swans
 - b) Gruidae or cranes, including little brown, sandhill and whooping crane

- c) Rallidae or rails, including coots, gallinules, sora and other rails
- d) Limicolae or shorebirds
- e) Pigeons, doves

(Migratory Birds Convention Act (R.S.C. 1970,

c. M-12).

Wetlands - means depressional lowlands including sloughs, potholes, marshes, oxbows and fringed open water one acre or more in area containing temporary, intermittent or permanent water and supporting emergent vegetation consisting of a variety of reeds and grasses such as cattails, bullrushes, bluejoint, whitetop and phragmites and submergent and floating aquatic plants such as water milfoil, bladderwort, pondweed and waterlily (Lodge, 1969).

CHAPTER II

THEORETICAL FRAMEWORK

2.1 Introduction

Waterfowl habitat literature, land use jurisdiction as well as federal and provincial government wildlife habitat preservation policies were reviewed. The implementation means of government assistance programs were examined as a major component in the theoretical framework of impact.

2.2 Land Use Jurisdiction

Pursuant to section 92(113) of the British North

America Act (1867), regarding property and civil rights in
the provinces, and pursuant to section 92(16) regarding

matters of a local or private nature, the provinces have
legislative jurisdiction over land use within their boundaries.

Agricultural land use policies, pursuant to section 95 of the B.N.A. will likely affect land use for agricultural purposes. Section 95 states:

In each province, the legislature may make laws in relation to agriculture ...

but federal agencies have the authority to approve the location of railways, airports, harbours and other federally

regulated works. Land used for these purposes may have considerable impact on the use of adjacent agricultural land. Federal economic legislation is often implemented by creation of institutions, marketing and funding agencies which may have a secondary or indirect impact on land use. In contrast, Manitoba legislation focuses specifically on resource or land use issues.

Under terms of the Resource Transfer Agreement (1930), the federal government has sovereignty over migratory birds. This responsibility, within Environment Canada, lies with the Canadian Wildlife Service. The lands which CWS manage are National Wildlife Area, Migratory Bird Sanctuaries and Wildlife Interpretation Centres. Migratory bird sanctuaries on provincial Crown land can be managed by the province in consultation with Canadian Wildlife Service.

The Wildlife Act, passed in 1973, and the Migratory Birds Convention Act passed in 1917 are two major pieces of federal legislation significant to waterfowl. The Wildlife Act delegates power to undertake, promote or recommend steps for the encouragement of public cooperation in wildlife conservation and interpretation. The Migratory Birds Convention Act was passed with the intent of protecting all migratory birds, including waterfowl, from indiscriminant slaughter and extinction.

2.3 Government Preservation Policies

An extensive volume of literature addresses the subject of waterfowl habitat preservation. Much of the research

focuses on the justification of wetlands as potential water-fowl habitat. Although many researchers agree that water-fowl and associated habitat are important landscape components (Colpitts, 1974), a common theme in the literature reveals a classic resource allocation problem.

The problem can be summarized in two statements. First, waterfowl are considered as publicly owned "free goods" often on privately owned land. When a farmer acquires the ownership or title to a parcel of private land, he thereby acquires a bundle of rights and duties which comprise ownership. These rights are:

- 1. the right to possess and use the land;
- 2. the right to income from the land; and
- the right to deal with the land in the sense of transferring title or putting up the title as security.

These rights are not absolute and must be exercised within the framework of the law. Expressed in terms of land use:

...conflicts exist between the expressed goals of people for orderly development and conservation of natural resources and their willingness to accept property right restrictions on land.

(Gibson, 1972)

Secondly, waterfowl have both direct consumptive and indirect non-consumptive uses which make waterfowl valuation a complex process. The demands for waterfowl are not registered in the marketplace. The absence of a free market to establish a price for the bird means that a conventional

calculation of the economic value of waterfowl is not possible. This "public resource -- private land" issue was addressed at the 46th North American Wildlife and Natural Resources Conference (Washington, D.C., March, 1981).

... it would appear unlikely that wildlife preservation programs on private lands will prosper without the cooperation of farmers Integrating wildlife preservation into cost sharing conservation and crop insurance programs that are part of the nations agricultural legislation could reduce some of the tension farmers feel. (Stone, G.W., 1981).

The farmer is running a business and economics are an important factor in guiding his operations. Wetlands are generally a negative factor to the landowner and the system he operates tends to force him into actions which lead to habitat destruction (Canada, Department of Environment, Canadian Wildlife Service, 1980). Therefore it is a difficult task to convince farmers of the inherent value of waterfowl.

The federal and Manitoba governments recognize that wildlife and wildlife habitat benefits are of social importance. Waterfowl are one component of this concern. Environment Canada has recently announced a policy on land use designed to guide activities of the government regarding the use of public and private lands. The policy recognizes that current land issues relevant to Canadian society include the preservation of unique habitats for wildlife.

One of the eleven policy clauses states:

The federal government will identify and, as appropriate protect through designation or acquisition, lands of particular value to the nation because of historical cultural, recreational, aesthetic or ecological importance.

A policy guideline used to aid in the application of policies also states:

The impact of policies and programs on fragile and critical habitats will be considered and appropriate action will be taken to prevent unnecessary damage to such lands. (Canada, Department of Environment, 1980).

The recent adoption of the Federal Policy on Land Use confirms the commitment of the federal government to sound management of the land resource.

Besides demonstrating land management concerns, the federal government has initiated development of a wildlife policy. Wildlife habitat preservation is one of the key goals of the proposed draft (Globe and Mail, November 3, 1981). The policy would be a statement of goals used by government agencies, federal and provincial, concerning wetlands and agricultural drainage. The draft policy which has not received Commons approval strives to fulfill the need for a coherent policy for wildlife habitat preservation, of which wetlands is one component.

The Manitoba government also demonstrates a concern for wildlife habitat. The Manitoba Provincial Land Use Committee of Cabinet has defined Provincial Land Use

Policies by a set of regulation under the Planning Act.

As in the federal policy on land use, Manitoba has prepared policy statements relating to wildlife habitat preservation. The statements are very broad. Since they must guide a wide range of land uses, they do not account for special local situations. Policy 9 and 10 refer to wildlife habitat preservation (Appendix B).

The Ontario government has expressed concern about loss of waterfowl habitat. The Land Use Committee of the Cabinet Committee for Resource Development approved the composition and terms of reference of a Wetlands Policy Development Subcommittee to deal with this concern (April 29, 1980). The Subcommittee realized that little consideration had been given to wetlands in their natural state. There was neither a provincial policy on wetlands, nor a commitment to ensure that their values were considered. This problem is a result of improper consideration and understanding of wetlands by planners and decision-makers (Ontario Ministry of Natural Resources, September, 1981).

Ontario planning guidelines, created within the existing legislative framework, have been suggested as a means of ensuring that land use planning and management recognize wetland benefits. The administration of related government assistance programs and selected Ontario statutes which have an effect on wetlands will be reviewed.

2.4 Government Assistance Programs

There are many federal and Manitoba acts with associated policies and programs, that promote habitat destruction. Agricultural programs administered by the Department of Agriculture (federal and Manitoba) are responsible for much of the habitat loss. These programs influence land use by providing assistance in a variety of ways. Since land use practices are influenced, waterfowl habitat is often consequently threatened. Examples of assistance programs are federal fiscal policies, sectoral support programs and regional development programs.

2.4.1 Fiscal Policies

Federal taxation policies are one means of influencing the level of economic activity in an area. Stimulating economic activity affects the quantity and nature of land utilized for various purposes. The Income Tax Act is one provision that provides deductions to farmers, for any amount paid by him for clearing land, levelling land, or laying drainage tile for the purpose of carrying on a farm business.

The National Housing Act, administered by Canada

Mortgage and Housing Corporation (CMHC) influences regional
economic activity that consequently causes land use changes.

CMHC may acquire land reserves that promote urban growth
onto wetlands. Federally controlled mortgage and interest
rates may also contribute to regional changes in land use.

2.4.2 Sectoral Support Programs

Income support and credit-assistance programs, particularly in agriculture, affect the economic climate of a region and consequently influence the land management practices associated with agriculture. A notable government assistance program is the Agricultural Rehabilitation and Development Act of 1961, and its successor, The Agricultural and Rural Development Act (ARDA) of 1966. They were designed to provide for rehabilitation and development of rural areas in Canada.

Another important support program, the Prairie Farm
Rehabilitation Act (PFRA) of 1935 indirectly provides incentives for farmers to invade non-arable land. These assistance programs concentrate heavily on soil management schemes, reclamation of poorly drained soil and irrigation projects.

Consequently, sectoral support programs have an impact on waterfowl habitat. The literature on government assistance programs revealed that programs are often directed towards, and have partially achieved, a variety of different goals

that became distorted in their interpretation. An example is the determination of eligibility for public financial assistance programs (Beattie, K.G., et.al., 1981).

2.4.3 Regional Development Programs

The federal government administers development programs in certain regions of Canada that are designated to stimulate economic growth. These programs directly affect land use by encouraging industrial growth, the expansion of resource and associated community development. Program administration is carried out by the Department of Regional Economic Expansion (DREE). Integral parts of regional development programs are land acquisition, ownership and management.

One such DREE program that involves large scale land ownership is the Water Development Service (WDS), under the auspices of the PFRA. The WDS constructs and operates irrigation and water conservation projects for the purpose of rehabilitating land and improving crop production. Often, large scale drainage occurs at the expense of waterfowl habitat.

2.5 Marginal Agricultural Land Use

The federal government controls agencies and departments that have produced a variety of funding agreements and assistance programs directed at increasing agricultural activities. The government assistance programs have goals of improving the efficiency of agricultural production and promoting

effective management of the land. Policies, programs and other activities of the federal Department of Agriculture have resulted in annual expenditures in excess of \$700 million in ten provinces. Other federal departments (Regional Economic Expansion; Industry, Trade and Commerce; Transport Canada; Manpower and Immigration) have spent an additional \$1 billion on agricultural activities (Rakowski, P.W. and D.R. Jurick, 1980).

The agricultural literature reviewed provided a key disagreement concerning goals of improving agricultural efficiency (Beattie, 1981). Should public assistance programs be devoted to:

- extending the limits of the agricultural margins¹ at the expense of waterfowl habitat and assisting farming operations in marginal areas to become economically viable, or
- 2. assist farmers in increasing existing agricultural potential and convert marginal farmland to more suitable and productive uses such as waterfowl habitat preservation.

This discussion of increasing existing agricultural potential or expanding the agricultural land base into marginal areas is discussed in further detail.

2.5.1 Increasing Agricultural Land Base

The agricultural use of marginal lands that are potential waterfowl habitat will continue to increase (Agricultural Institute of Canada, 1979). Food production will

 $[\]frac{1}{1}$ Marginal lands is defined in Definition of Terms (p. 6).

inevitably be forced onto poorer quality land as more prime agricultural land succumbs to urban encroachment (Wight, 1978). Even if Canada manages to protect its prime agricultural lands, the extension of Canada's agricultural base into marginal areas which support waterfowl might occur as world food crises pressure the agricultural industry into bringing new marginal lands under cultivation (Beacom, 1974).

This argument of expanding the area of agricultural base is perceived to be a problem to wildlife conservationists, as well as agriculturalists. There are higher costs of production, greater agricultural risks and very little crop producing potential associated with the farming of marginal lands. Ecologically, aesthetically and in terms of direct economic returns, much of this effort and investment is distinctly counter-productive (Sawatzky, 1981).

2.5.2 Increasing Existing Agricultural Potential

Opponents to expanding the area of agricultural base argue that local farming potentials have been under-estimated. An efficient public policy would be to preserve prime agricultural land rather than encourage the farming of marginal lands (Agricultural Institute of Canada, 1979). Prime agricultural land could be preserved and increasingly efficient land use practiced, if public funds were spent on research and farm support to increase and intensify food production on prime agricultural lands (Agricultural

Institute of Canada, 1979). Support for increasing existing agricultural potential is stated,

No matter what technology is used for food production in the future, it will always be most productive, most efficient and least expensive on the best agricultural lands. (Dick, 1975)

2.6 Summary

In conclusion, waterfowl habitat literature revealed the existence of numerous federal and Manitoba policies and programs that influence land use in a variety of ways. Misinterpretation of these programs often leads to detrimental and inefficient land use allocations. Central to the theme of habitat preservation is the nature of wildlife resources. Waterfowl, a product of wetlands, are a publicly owned "free good", often located on private land. This fact creates complexities in economic valuation and consequent preservation policy.

Finally, the literature revealed a need for improved understanding of legislation and the related impacts of programs on waterfowl habitat.

The present statutes are unclear and often confusing. Recent agricultural drainage studies in Manitoba emphasize this fact.

Consulting the legislation concerning water and drainage law, the resource manager will find many of the key statutory provisions obscure and inconsistent (Elliott, 1978).

More recently, concern has been expressed towards legislative inconsistencies:

The legislative and institutional frame-work within which land managers must operate is beset with internal inconsistencies. If land management within Manitoba is to develop beyond the incremental stage in which it is presently stalled, these inconsistencies must be rectified (Zittlau, 1979).

Besides being unclear and confusing, the present legislation, that has potential impact on waterfowl habitat aids agricultural interests:

Even though the intent of some of the statutes seems to be to reorganize the value of wetlands, the letter of the law is, at best, vague and usually assumed to be related to soil and water conservation for agricultural purposes only (Elliott, 1978).

A recent preliminary legislative review of programs affecting waterfowl habitat summarizes habitat preservation concerns clearly:

Key pieces of legislation should be selected for more thorough investigation to determine if programs, often agricultural, that are of major detriment to waterfowl habitat can be modified (Rakowski, P.W. and D.R. Jurick, 1980).

CHAPTER III

FEDERAL LEGISLATION

- 3.1 Department of Regional Economic Expansion
- Under this Act, the Department of Regional Economic Expansion Act
 pansion is established (D.R.E.E.). The Department administers
 six statutes in Canada. The Agricultural and Rural Development Act and the Prairie Farm Rehabilitation Act are included
 in this report. D.R.E.E. is responsible for federal government efforts to overcome regional economic disparity. The
 main objective of D.R.E.E. is to assist and encourage each
 region of Canada in realizing its economic and social potential.

A major component of D.R.E.E. is the General Development Agreements (GDA's) which have formed the framework for much of D.R.E.E.'s planning. The GDA's, first signed with the western provinces in 1974, provide the administration of federal - provincial Subsidiary Agreements.

Subsidiary Agreements are instruments by which the strategies and objectives of the GDA's are to be met. Each Subsidiary Agreement has financial limitations, a fixed costsharing agreement, and focuses on specific economic needs of particular regions in Canada. As of December 1979, 11 GDA's and 106 Subsidiary Agreements have been signed in Canada.

D.R.E.E. has invested or committed more than \$600 million in western Canada under the Subsidiary Agreements. Of this total,

\$246 million has been committed in Manitoba (Table 1).

Table 1

DEPARTMENT OF REGIONAL ECONOMIC EXPANSION SUBSIDIARY AGREEMENTS IN MANITOBA

SUBSIDIARY	-	FEDERAL	FEDERAT.		
AGREEMENT	BUDGET 1		REE)		
Industrial Development (April 1, 1978 to March 31, 1983)	\$ 44,000,000	\$ 26,400,000 (4	4%)		
. Value-Added Crops Production (April 1, 1979 to March 31, 1984)	\$ 18,500,000	\$ 11,100,000 (6	0%)		
Tourism Development (April 1, 1979 to March 31, 1984)	\$ 20,000,000	\$ 12,000,000 (6	0%)		
Manitoba Northlands (April 1, 1976 to March 31, 1982)	\$155,416,000	\$106,009,000 (68	3%)		
Interim Subsidiary Agreement for Regional Economic Expan- sion and Drought Proofing (May 30, 1980 to March 31, 1982)	\$ 8,950,000	\$ 5,370,000 (60	7 <i>9</i> \		

Source: Canada, Department of Regional Economic Expansion, April 1, 1980.

3.1.1.1 Value-Added Crops Production

The Value-Added Crops Production General Development Agreement was signed by D.R.E.E. and the Manitoba Department of Agriculture on December 15, 1978 and will terminate on March 31, 1984. The general objective of the Agreement is

¹Budget refers to duration of agreement.

to expand the economic production of value-added crops¹, improve the efficiency of the red meat industry and expand both commercial services and processing of agricultural products.

Although crops dominate agricultural output in Manitoba, the use of some crops to raise livestock is an alternative means of marketing grain. Increasing value-added can be obtained through improving efficiency of forage production and expanding feeding and finishing of cattle. (Canada, Department of Regional Economic Expansion, Subsidiary Agreement, December 15, 1978). Waterfowl habitat is threatened by this program because the existing livestock industry is based mainly on marginal and unimproved farm lands that provide habitat for migratory birds.

The Value-Added Crops Production program encourages farmers to produce special crops on marginal and presently unimproved farm land. The risk of crop losses is much greater on marginal land. Also, special crop production and farming of marginal lands requires higher production investments and more expert management. Drainage can be a factor affecting production risk. Thus, risk can be reduced by undertaking drainage. The Value-Added Crops Production program provides the farmer with opportunities to undertake drainage. A specific project of the Value-Added Crops Production that has potential negative effects

Value-Added crops include malting barley, sunflowers, rapeseed, soybeans, sugarbeets, and alfalfa (Canada, Department of Regional Economic Expansion, Subsidiary Agreement, December 15, 1978).

on waterfowl habitat is Program 4: Related Productivity Measures.

The Related Productivity Measures Project objective is to implement productivity measures that will remove constraints to the production of value-added crops with particular emphasis on water management projects. Nine operations under this program are located in three crop production zones: Southeast, Assiniboine South and Portage-Carberry. Although specific reference is made to these zones in the Agreement, no distinct boundaries have been delineated or mapped by Manitoba Department of Agriculture (Al Chorney, personal communication, July 1981).

All projects are presently in development stages. Localized land clearing has begun in the vicinity of Cook's Creek. Projected five year total costs of the Related Productivity Measures Program (1979-84) are \$9 million (Table 2). The projects attempt to demonstrate irrigation technology and provide advice in the design and development of appropriate drainage works to augment water levels throughout the growing season.

Unimproved farm land - native pasture, wetlands, idle land adjacent to roads, railways and other service corridors. (Manitoba Department of Agriculture Yearbook, 1979).

Table 2

CANADA - MANITOBA SUBSIDIARY AGREEMENT
ON VALUE - ADDED CROPS PRODUCTION

Summary of Projected Costs - (1979 - 1984)

PROGRAM	4 RE:	LATED PRODUCTIVITY MEASURES		(x 000)	
			FED	PROV	FIVE YEAR TOTAL COST
Project	4.1	Cooks Creek Area Project	1500	1000	2500
Project	4.2	Marsh River Area Project	300	200	500
Project	4.3	Organic Soil Productivity Investigations	300	200	500
Project	4.4	La Salle River Area Project	900	600	1500
Project	4.5	Morris River Area Project	600	400	1000
Project	4.6	Domain Crop Area Demonstration Project	720	480	1200
Project	4.7	Irrigation Technology In- vestigation and Demonstra- tions	300	200	500
Project	4.8	Almassippi Wet Sands Management	480	320	800
Project	4.9	Related Productivity Projects	300	200	500
,		•	5400	3600	9000
-					

Source: Canada, Pepartment of Regional Economic Expansion, Subsidiary Agreement, April 1, 1980).

Two proposed projects in the Southeast crop zones include extensive land drainage to reduce constraints to crop production.

The Cook's Creek Area Project provides provision of 125,000 acres (50,607 hectares) of crop land through drainage system improvements, including construction of main channel drains and improvements to feeder drains. These drainage improvements are projected to increase yields by 12% and extend the opportunity to produce a wider range of crops (Canada, Department of Regional Economic Expansion, Subsidiary Agreement, December 15, 1978).

The Marsh River Area Project plans to provide improvement of 105,000 acres (42,510 hectares) for crop land through channel improvements to expand crop production potential. The La Salle River, Morris River and Domain Crop Area Demonstration Projects are attempting to reduce crop productivity constraints of excess water in wet years and drought in dry years.

Another area of concern to waterfowl habitat is the management and administration of the Value-Added Crops Production Agreement. The Agreement is administered by an Implementation Committee with the following

duties:

- a. to ensure that the intent, terms, and conditions of the Agreement are carried out during the duration of the Agreement,
- b. to approve projects under the Agreement,
- c. to transfer funds from one program to another where appropriate and consistent with the intent of this Agreement,
- d. to establish project advisory committees as required, or request the presence of representatives from other departments or agencies where it is considered that their presence would contribute to the effectiveness of the Implementation Committee.

Presently, the Implementation Committee is comprised of representatives of DREE, Agriculture Canada, Manitoba Department of Agriculture and one other representative from the provincial government of Manitoba.

The Canada/Manitoba Value-Added Crops Production Subsidiary Agreement states:

The intent of both the Federal Environmental Assessment and Review Process and the Manitoba Environmental Assessment and Review Process shall be followed for all capital projects or groups of projects jointly funded under this Agreement. (Canada, Department of Regional Economic Expansion, December 15, 1978). Usually, the procedures of the Manitoba Environmental Assessment and Review Process are implemented to evaluate potential project impacts in Manitoba. Under agreement from the Federal Environmental Assessment and Review Process. In certain instances, the federal process will request further project information that was not included in the Manitoba review (K. Simmons, personal communication, March 1982).

The Manitoba Environmental Assessment and Review Process is established:

to ensure that environmental assessments are carried out for all proposed provincial projects that may significantly alter or affect the environment as a result of contamination of air, water and soil. (Manitoba, Department of Mines, Resources and Environmental Management, 1975, p. 2)

Since "wildlife habitat" is not included in the definition of "environment", drainage projects that may result in a potential loss of waterfowl habitat are not subject to MEARP review. Research into the effectiveness of the MEARP has revealed similar deficiencies in the process (Simmons, 1982). As well, the Manitoba Department of

Environment is presently preparing draft legislation to replace present policy in an attempt to rectify process deficiencies.

3.1.1.2 Canada/Manitoba Interim Subsidiary
Agreement on Water Development for
Regional Economic Expansion and
Drought Proofing

This GDA Subsidiary Agreement, signed May 30, 1980 and scheduled to expire on March 31, 1982 is valued at \$8.95 million (Table 3). The purpose of the Agreement is to improve the potential for economic and socio-economic development in Manitoba, alleviating the constraints imposed on economic performance by recurring water shortages and droughts.

TABLE 3

CANADA - MANITOBA INTERIM SUBSIDIARY AGREEMENT ON WATER DEVELOPMENT FOR REGIONAL ECONOMIC EXPANSION AND DROUGHT PROOFING

Summary of Costs (1979 - 1982)

(000)

*****	-	DREE	MANITOBA	TOTAL
A.	Water Management Activities	2475	875	3350
В.	Water Supply	2875	27 25	5600
				\$8950

Source: Canada, Department of Regional Economic Expansion, April 1, 1980).

The programs under this Agreement are carried out in two sectors:

- a. Water management activities will be undertaken which are focused on the development of a long term strategy for water development and drought proofing.
- b. Water supply projects will be investigated to improve water supplies and offset water shortages.

The Canada/Manitoba Interim Subsidiary Agreement on Water

Development for Regional Economic Expansion and Drought Proofing
has the potential of encouraging wetland consolidation. Often
small sloughs are drained into larger basins for irrigation.

Although some programs under this Agreement are intended to
develop surface water conservation projects, the results can be
detrimental to waterfowl habitat.

3.1.2 Prairie Farm Rehabilitation Act

This Act is administered by the Prairie Farm Rehabilitation Administration (P.F.R.A.). The three main services of P.F.R.A. are Land Use, Water Development, and Engineering. Soil and water conservation projects and drought proofing programs are included in all three services (Table 4). Since its inception, P.F.R.A.'s expenditures have totalled over \$668 million in Manitoba, Saskatchewan and Alberta.

Table 4 EXPENDITURES BY SERVICE Includes Operation, Maintenance, Capital Funds, and Contributions 1935 — March 31, 1980

	1979-80	1935-1980
ADMINISTRATION Handmanton Administration and related activities	• 0 050 757	# 00 E00 +49
Headquarters Administration and related activities	\$ 2 250 757	\$ 22 520 143
LAND USE SERVICE		
Cultural Work — Soil Drifting, etc. (Experimental Farm Service)		4 966 394
Community Pastures — Construction, Operation and Maintenance	7 809 999	107 284 266
Movement of Settlers		227 841
WATER DEVELOPMENT SERVICE		
Supervision, Individual Dugouts, Wells, Community Large Water Storage,		
and Irrigation Projects	4 911 112	108 470 450
Equipment — Purchase and Repairs, Service Depot	1 644 701	30 996 452
Tree Nursery	1 689 948	14 454 921
Bow River Irrigation		47 353 798
ENGINEERING SERVICE		
Surveys, Design, Geotechnics, Draining Studies, Legal Surveys, Supervision		
of Construction	6 110 168	80 495 330
St. Mary Irrigation Project	0 110 100	33 928 864
South Saskatchewan River Project	326 281	139 259 126
Assiniboine River Dyking	101 363	1 973 822
Shellmouth Dam and Portage Diversion	101 303	14 796 868
B.C. Reclamation and Development, including Lillooet Project	-	3 310 182
Land Protection and Reclamation, Manitoba and Eastern Canada		4 136 021
Alberta Irrigation Rehabilitation	536 132	25 172 377
Agricultural Service Centres	2 050 170	21 531 532
Vermilion Dam and Reservoir	16 362	1 115 285
Miscellaneous Projects — Construction	336 032	6 104 487
	\$27 783 025	\$668 098 159
REVENUES BY ACTIVITIES		
Community Pastures Operations	\$ 5 166 334	\$ 52 801 360
Irrigation Project Operation and General Revenue	3 553 856	31 336 899
•	\$ 8 720 190	\$ 84 138 259

3.1.2.1 Community Pastures

The main objective of the P.F.R.A. Community Pasture program is to manage the lands under P.F.R.A. jurisdiction to sustain or increase long term cattle production. The land inventory of P.F.R.A. in Manitoba is provincial Crown land managed by D.R.E.E. In 1979-80, \$7,809,999 were spent on construction, operation and maintenance of community pastures in the prairies while \$5,166,334 were generated in revenue from community pastures operations.

Of P.F.R.A.'s total land inventory in the prairies (955,078 hectares), community pastures account for 97% of the total (932,165 hectares). Only 166,983 hectares are community pasture in Manitoba. The pastures are usually located on grazing land, designated by P.F.R.A. as submarginal for cereal production (Canada, Department of Regional Economic Expansion, P.F.R.A. Annual Report. 1979-80). Wetlands in native and/or tame grass areas of community pastures have little nesting cover due to grazing (Zittlau, 1979). Consequently, these wetlands represent poor waterfowl habitat.

3.1.2.2 Water Development Service

The main objective of this service is to construct and operate irrigation and water conservation projects for the purpose of rehabilitating land and improving crop production. These projects include dugouts, stockwatering dams, irrigation schemes and wells. Although dugouts conserve surface water, they provide poor or non-existent waterfowl habitat due to a

lack of nesting cover.

Manitoba received financial assistance for 944 P.F.R.A. projects (\$331,944) from April 1, 1979 to March 31, 1980. The projects were from the Water Development Service. Direct P.F.R.A. financial assistance is not formally available for land drainage, although reclamation activities often require drainage works. Back-flood irrigation has been debated as a drainage practice funded by P.F.R.A. (Elliott, 1978).

Back-flood irrigation is an activity that requires a dyke, culvert and ditch for water storage and irrigation. Technical and financial assistance can be provided through P.F.R.A.

This activity is called "controlled drainage" and is used for reclaiming sloughs and potholes. Back-flood irrigation inyolves both water retention and drainage (LaRose, 1969). Consequently, P.F.R.A. contributes towards the development of drainage practices, although direct financial assistance is not formally available.

3.1.3 Agricultural and Rural Development Act

The purpose of this legislation is to authorize the federal government to enter into agreements with a provincial government for the joint undertaking of alternate land use projects and rural development projects. These projects assist farmers with small or otherwise unprofitable units and promote the conservation of soil and water resources.

Since 1962, three A.R.D.A. Agreements have been signed

between Canada and Manitoba. A.R.D.A. I (1962 - 1965) included construction of water storage structures, and rural development activities. A.R.D.A. II (1965 - 1970) initiated similar projects as under A.R.D.A. I. In addition, special rural development areas were designated under A.R.D.A. II. Projects in the Interlake region were financed under A.R.D.A. II and F.R.E.D. (Fund for Rural Economic Development). Oak Hammock marsh is a project developed under A.R.D.A. II (1969) that provides waterfowl habitat in southwest Manitoba. The A.R.D.A. III Agreement (1972 - 1978) emphasized farm income improvements, and soil and water conservation.

Approximately \$100 million was spent under the A.R.D.A.

Agreements for the prairie provinces (1962 - 1978), (Rakowski,
P.W. and D. R. Jurick). An additional \$85 million was allocated
to the F.R.E.D. Agreement (1967 - 1977), of which \$7 million
was assigned to 7 major drainage systems in Manitoba (Elliott,
1978). Presently, Special A.R.D.A., signed in 1971, is the
only A.R.D.A. agreement in effect. Disadvantaged people, particularly of native descent, are provided with opportunities
to start commercial ventures which will employ local people and
improve regional income from primary producing activities
(hunting, fishing, trapping and agriculture). (Canada, Department of Regional Economic Expansion, April 1, 1980). Special
A.R.D.A. focuses on remote, northern areas of Manitoba. Consequently, impacts on waterfowl habitat are minimal.

3.2 Department of Agriculture

3.2.1 Department of Agriculture Act

The Department of Agriculture Act outlines the framework of the Department of Agriculture and delegates responsibility to the Minister for maintaining the well-being of Canadian agriculture. The Department of Agriculture administers federal statutes that include administration, assistance, and production and marketing related Acts (Appendix A).

The objectives of the Department of Agriculture are to meet the needs of Canadians for reasonable priced food, provide farmers with a fair return on their labour and investment, optimize opportunities in overseas markets and to provide assistance in international food requirements. These objectives are met by federal legislation and consequent programs and policies. The programs and policies create impacts which can potentially result in a loss of waterfowl habitat.

A recent Department of Agriculture discussion paper, exemplifies a Department objective of expanding the supply of agricultural land. The report reveals that strengthening the supply base involves a number of factors including: conserving and upgrading the land resource, adding new land to the cultivated acreage and providing adequate financial support to ensure the continued viability of family farms. Specific proposals to Cabinet for new programs and policies, or adjustments to existing ones, will be submitted to achieve Department of Agriculture objectives (Canada, Department of Agriculture, 1981).

The various agricultural programs and policies are developed by the Policy, Planning and Economics Branch of the Department of Agriculture. This Branch provides economic analysis and research for department senior management on the establishment of plans and priorities. Their concerns include long term tax credit policy, tax analysis and agricultural development programs.

3.2.2 Farm Credit Act

Since the Canadian Farm Loan Act was passed in 1929, \$5.4 billion has been extended to Canadian farmers, by the federal Department of Agriculture, under the Farm Credit Act and the Canadian Farm Loan Act. The Farm Credit Act established the Farm Credit Corporation which succeeded the Canadian Farm Loan Board in 1959. The Corporation (FCC) makes long term mortgage loans at reduced interest rates, to assist Canadian farmers to develop viable farm businesses.

The FCC may lend up to \$200,000 to an individual and up to \$400,000 for two or more applicants entering farming. Loans may be used to acquire farm land, to erect or modernize farm buildings, to purchase livestock and farm equipment, to discharge liabilities, undertake improvements, or for any other purpose that in the judgment of the Corporation will facilitate the efficient operation of the mortgaged farm. Farmers have used this agricultural credit to clear, drain and break marginal land, destroying waterfowl habitat.

Such drainage activity is considered part of land improvements.

On January 27, 1982, a bill was introduced to the House of Commons to reform the Farm Credit Corporation.

Proposed modifications are to allow the Corporation to borrow money in the private sector. Previously, the F.C.C. relied exclusively on government funds for loan capital.

The Department of Agriculture is considering a system of tax breaks to farmers who agree to lend money to the F.C.C. The loans would be at a reduced interest rate and the farmer could be relieved of income tax on interest revenue from the Loan. Presently, the F.C.C. lends money at 16½%

(April 1, 1982). This rate is below Canadian chartered banks prime business loan rates (F.C.C. Annual Report, 1981).

Other major changes proposed in the bill include:

- raising the F.C.C. debt limit to \$5.625 billion from \$3.75 billion
- increasing the maximum amount individual farmers can borrow to \$300,000 from \$200,000
- increasing the maximum amount two or more applicants entering farming can borrow to \$500,000 from \$400,000
- transferring the maximum loan level from a statute to a regulation, so government can increase the loan level without Parliamentary approval (Western Producer, February 4, 1982).

The impact of this bill on drainage activity is significant because proposed modifications of the F.C.C., if passed, will facilitate the acquisition of agricultural

credit is partially used for land improvements, of which drainage is included, the proposed bill may encourage farmers to increase clearing and breaking activities.

F.C.C. loan statistics were reviewed to determine the extent of land improvements resulting from F.C.C. funds. Statistics from the Research Division of the Department of Agriculture were compiled for 9 municipalities in the Minnedosa pothole region of western Manitoba. All F.C.C. loans in these municipalities, totally or partially used for improvements from 1975-76 to 1980-81, were summarized according to total owned and total cultivated land before and after the loan, for 22 individual applications (Table 5). The figures indicated an increase of 1579 hectares of cultivated land after the loans were instituted.

Of the \$68,250 used for improvements, \$54,750 (80%) was used for clearing and breaking approximately 250 hectares of unimproved land. The remainder of the funds were used for fence repair, pasture development and farm diversification. Farm improvements accounted for 4.8% of the total amount approved (\$1,457,200).

The Farm Credit Act is not the only legal instrument by which farmers can obtain credit to carry out farm improvements. The Manitoba Agricultural Credit Corporation, administering the Agricultural Credit Corporation Act (Chapter 4), and The Farm Improvements Loans Act, administered by Agriculture Canada, provide additional agricultural financial assistance.

Table 5

FARM CREDIT CORPORATION LOAN STATISTICS*

(1975/76 - 1980/81)

22 Records

	HECTARES
Total Owned Before	2850
Total Owned After	5393
Cult. Owned Before	1828
Cult. Owned After	3407
Amount Approved (\$)	1,457,200
Amount for Improvement (\$)	68,250

Source: Department of Agriculture, Research Division, Ottawa, July, 1981.

^{*}Statistics compiled from the following Manitoba municipalities: Birtle, Blanshard, Harrison, Hamiota, Saskatchewan, Strathclair, Russell, Shoal Lake, Sivercreek.

3.2.3 Farm Improvement Loans Act

The Farm Improvement Loans Act, enacted in 1945, provides intermediate and short term credit to farmers for the improvement and development of farms and for the improvement of living conditions. The Department of Agriculture initiates the term loans to farmers by chartered banks, for a wide range of farm improvement projects.

The main purpose for which the loans were made in 1980 were:

- purchase of agricultural implements and equipment,
- general works for the improvement or development of a farm, including clearing and breaking of land, irrigation systems, fending and drainage works,
- construction, repair or alteration of farm buildings,
- . purchase of livestock,
- . purchase of additional farm land,
- major repair or overhaul of agricultural implements or equipment.

During 1980, 2,478 loans totalling \$25,211,082 were administered in Manitoba through various chartered banks. (Table 6) Of this total, 93 loans amounting to \$705,544 were used for farm improvement loans used for land drainage and fencing amounted to \$10,855.

3.2.4 Farm Syndicates Credit Act

The Farm Syndicates Credit Act, initiated in 1964, is also administered by the Farm Credit Corporation. This Act provides for loans to groups or syndicates of three or more

Table 6
FARM IMPROVEMENT LOANS CLASSIFIED BY PROVINCES AND LENDERS

- 41 -

Lenders Provinces		Bank of Montreal	No	Bank of ova Scotia	R	oyal Bank of Canada	Do	oronto ominion Bank
	No.	Amount	No.	Amount	No.	Amount	No.	- Amount
British Columbia	418	7,088,079	19	217,934	49	656,038	132	2,115,328
Alberta	355	4.584.457	1,307	14,791,147	39	859,590	1,729	17.333.334
Saskatchewan	59	1,267,782	987	11,908,098	696	11,566,893	1,361	12,499,245
Manitoba	36	430,113	272	2.863,794	39	800,800	526	5,329,433
Ontario	143	2,148,687	40	541,966	69	1,386,366	632	8 .087,369
Quebec	4	29,150	1	10,956	32	959,948	3	34,220
New Brunswick	60	458,583	46	342,708	47	479,740	•	04,220
Nova Scotia	4	95,475	50	366,013	18	205.878		
Prince Edward Island	27	448,795	129	983,434	1	10,470	2	47,700
Newfoundland Northwest Territories	4	103,432	5	128,802	·		_	**,****
Yukon							1	22,800
Total	1,110	16,654,553	2,856	32,154,852	990	16,925,723	4,386	45,469,429

LOANS CLASSIFIED BY PROVINCES AND LENDERS (Cont'd)

Lenders Province	Nat	National Bank of Canada		Canadian Imperial Bank of Commerce		Bank of British Columbia		Total Chartered Banks	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	
British Columbia			523	6,884,859	3	37,400	1,144	16,999,638	
Alberta	1	21,400	3,278	34,727,299	4	51,800	6,713	72,369,027	
Saskatchewan			3,608	39,273,867		•	6.711	76,515,885	
Manitoba	33	577,200	1,572	15,209,742			2.478	25,211,082	
Ontario	29	434,145	239	3,406,907			1,152	16,005,440	
Quebec	28	671,664	6	294,965			74	2,000,903	
New Brunswick	13	133,995	14	90,375			180	1,505,401	
Nova Scotia		·	52	419,705			124	1.087.071	
Prince Edward Island	25	202,549	167	1,320,892			351	3,013,840	
Newfoundland Northwest Territories		·	4	91,505			13	323,739	
Yukon							1	22,800	
Total	129	2,040,953	9,463	101,720,116	7	89,200	18,941	215,054,826	

Source: Farm Improvement Loans Act, Annual Report, 1980.

Table 7

LOANS FOR VARIOUS FARM IMPROVEMENT

PURPOSES MANITOBA - 1980

PURPOSE	NO.	AMOUNT (\$)
Clearing and Breaking	27	151,772
Fencing and Drainage Works	3	10,855
Other Work for the Improve- ment or Development of a Farm	31	181,007
Irrigation Systems	7	93,950
Fixed Equipment	25	267,960
TOTAL	93	705,544

Source: Farm Improvement Loans Act, Annual Report, 1980.

farmers for the joint purchase of machinery, buildings and installed equipment. No assistance is provided for additional land purchase or farm improvements, but the assistance may access other capital that may be used for drainage purposes.

A concluding statement pertaining to the use of agricultural credit must be considered. Although farmers are
using federal or provincial agricultural credit to drain
wetlands, consequently destroying waterfowl habitat, farmers
also drain wetlands without financial assistance. These individual land improvements that do not require financial
assistance are difficult to isolate and determine habitat impacts.

3.2.5 Agricultural Stabilization Act

The Agricultural Stabilization Act provides for the stabilization of agricultural commodity prices in order to assist the agricultural industry in realizing fair returns on its labour and investment. Section 3(1) establishes the Agricultural Stabilization Board. Duties are to stabilize the prices of agricultural commodities to ensure that prescribed prices bear a fair relationship to production costs. Total deficiency payments to producers in 1980-81 amounted to \$48,049,081 for 29,475 claimants (excluding dairy payments) (Department of Agriculture, Agricultural Stabilization Board Annual Report, 1980-81).

Legislation, similar in nature to the Agricultural Stabilization Act includes the:

- . Agricultural Products Board Act
- . Agricultural Products Cooperative
- . Agricultural Products Marketing Act
- . Western Grain Stabilization Act

- . Prairie Farm Assistance Act
- . Crop Insurance Act

A common theme in these statutes is assistance to farmers in price support and marketing of agricultural commodities and subsidies. This assistance maintains a fair return on investment and possibly minimizes production risks. Consequently, this type of legislation provides farmers with additional security in maintaining operation. Without price support, a farmer might reduce his attempts to increase production on marginal lands.

3.3 Department of Industry, Trade and Commerce

3.3.1 Farm Business Development Act

New and existing enterprises, including agricultural, whose owners require assistance for improvement projects, can obtain financing from the Federal Business Development Bank. The FBDB compliments the Farm Credit Corporation. The FBDB will help finance a start, a modernization, or expansion of a farm business. This statute is administered by the Department of Industry, Trade and Commerce.

Agricultural credit is not usually obtained from the FBDB due to the existence of the Farm Improvement Loans Act and the Farm Credit Corporation. Hence, the impact of this Act on waterfowl is negligible.

3.4 Department of National Revenue

3.4.1 Income Tax Act

Since the Income Tax Act is very complex, it is difficult to provide an accurate summary. Key sections of agricultural interest are included. Further clarification will require indepth examination and interpretation of the Act.

Section 30 concerns land clearing, levelling and laying drainage tile:

there may be deducted in computing a taxpayer's income for a taxation year from a farming business any amount paid by him in the year for clearing land, levelling land or laying drainage tile for the purpose of carrying on the farm business.

Section 20(1) outlines Capital Cost Allowances for farmers.

Deductions may be claimed for each taxation year as follows:

(a) (b)	<pre>a building a building, or other structure of:</pre>	5% 10%
	 frame stucco galvanized iron, or corrugated iron 	
(c)	a fence	10%
(d)	non-automotive equipment and machinery	20%
(e)	automotive equipment,	200
	sleigh or wagon	15%
(f)	tile drainage, acquired	
	before 1965 taxation year	10%
(g)	a tool costing less than \$100	100%

Other sections that relate to agriculture are:

- . section 28 computation of income
- . section 40 capital gains
- section 76(4) grain inventory sales
- . section 101 disposition of partnership land
- . section 119 income averaging rules

The magnitude of the habitat impacts from these sections is unknown, although tax deductions are available only to landowners that have taxable income. In conclusion, section 30 and 20(1) contain the most significant impacts to waterfowl habitat. A farmer can deduct land clearing costs, and interest on borrowed money for these purposes at reduced interest rates and also deduct capital costs of equipment. Consequently, the Income Tax Act adds to existing incentives to invade non-arable land.

3.4.2 Excise Tax Act

In addition to available deductions to the Income Tax

Act, the Excise Tax Act allows exemptions for some farm items

from federal sales tax. These include gasoline for farm purposes, fertilizers and some agricultural equipment. Tax de
ductions and exemptions are a direct means of reducing farm

operating costs. This may create impact on waterfowl habitat,

where potential returns on land development are marginal.

3.5 Department of Transport

3.5.1 Canadian Wheat Board Act

The Canadian Wheat Board Act provides the constitution and powers of the Canadian Wheat Board (CWB). The Board is

incorporated with the objectives of marketing in an orderly manner, in interprovincial and export trade, grain grown in Canada. To control grain movement and marketing at a reasonable price, the Board sets quotas for each kind of grain that may be delivered by producers to elevators or railway cars, within any period or periods, either generally or specifically.

The formula upon which the producer's quota is based includes the following categories:

- Land seeded to the six quota grains (wheat, barley, oats, flax, rapeseed, rye).
- 2. Land in summerfallow.
- Land seeded to miscellaneous crops.
 This includes all crops other than the six quota grains and perennial forage.
- 4. Land seeded to perennial forage up to a maximum of one-third of the combined total of land in grains and oil seeds, summerfallow, and miscellaneous crops. This includes alfalfa, perennial grasses, and clover.

The structure of the quota system encourages expansion of cultivate land. Land must be broken before it is assigned a quota. Therefore, farmers consider improvement of uncultivated or marginal land to increase their quota. A recent agricultural study in Manitoba summarized the quota system as follows:

Given that delivery opportunities and the size of a quota allotment are largely a function of cultivated acreage (as opposed to productivity per acre), farmers that wish to adopt more intensive management practices are given very few incentives to do so (Zittlau, 1979, p. 170).

In January, 1982, the Canadian Wheat Board announced charges in the quota system that attempt to incorporate a productivity factor into the system. Beginning August 1, 1982, farmers engaging in continuous cropping of the six major grains, can acquire bonus acres to add to their existing quota base. The existing base is calculated according to previously mentioned formula. Under the new system, if one-third of the acreage planted to the six major grains is greater than the acreage devoted to summerfallow and special crops, the difference will be added to the farmers quota base. (Western Producer, February 4, 1982).

The modified quota system will likely encourage farmers to crop quota grains intensively, producing higher yields on existing cultivated acreage. Bonus acres can be obtained without necessarily increasing cultivated acres. This can be achieved by reducing incentives to produce special crops (mustard) and summerfallow and emphasizing continuous cropping of the six major grains. Although the quota system still encourages the expansion of cultivated land, motivation to invade marginal land can be potentially eliminated through the bonus acreage modification.

Table 8
SUMMARY OF FEDERAL LEGISLATION

1

FEDERAL DEPARTMENT	LEGAL INSTRUMENT	CLASSIFICATION OF POTENTIAL ON WATERFOWL HABITAT
Agriculture	Dept. of Agriculture Act Farm Credit Act Farm Improvement Loans Act Farm Syndicates Credit Act Agricultural Stabilization Ac	Category 1 Category 3 Category 2 Category 2 Ct Category 1
Regional Economic Expansion	Dept. of Regional Economic Expansion Act Agricultural and Rural Development Act Prairie Farm Rehabilitation A	Category 3 Category 3 Act Category 3
National Revenue	Income Tax Act Excise Tax Act	Category 3 Category 1
Transport	Canadian Wheat Board Act	Category 3
Industry, Trade and Commerce	Federal Business Development Act	Category 1

Category 2 - Impact on Waterfowl Habitat Recognizable but Not Readily Quantifiable.

Category 3 - Impact on Waterfowl Habitat Observable, Significant and Possibly Quantifiable.

CHAPTER IV

MANITOBA LEGISLATION

4.1 Department of Agriculture

4.1.1 Department of Agriculture Act

The Department of Agriculture Act outlines the powers and authorities of the Minister. This statute allows the Minister to collect and disseminate information, conduct research and enables the Department of Agriculture to enter into agreements with other levels of government. The following provincial statutes, administered by the Department of Agriculture, are included in this section of the review:

- . Land Rehabilitation Act
- . Agricultural Productivity Council Act
- . Agricultural Credit Corporation Act
- . Agricultural Societies Act
- . Agricultural Lands Protection Act

4.1.2 Land Rehabilitation Act

Section 3(1) allows a municipality to do anything to rehabilitate any agricultural area within a municipality and to develop within that area, systems of farm practice, tree culture, water supply, land utilization and land settlement that will afford greater economic security. Section 3(2) states that a municipality may construct, acquire, extend, improve, conduct, operate and maintain works and acquire

lands. Land required under clause 3(2) may be acquired by a municipality in the form of purchases or expropriations.

The Land Rehabilitation Act allows municipalities to exercise control over farmers practicing abusive land management techniques. Often, this goal of improved land use is not achieved because of permissiveness. Most municipalities are reluctant to take action against farmers because municipal councillors are often friends and neighbours of these farmers (Zittlau, 1978). Also legislation to improve land management is primarily punitive, in that it offers no incentive for voluntary land-use improvement (Rakowski, P.W. and D.R. Jurick, 1980).

Section 8 states that all power and authority granted to a municipality is subject to the Water Rights Act. This section would apply to municipal land rehabilitation that involved drainage. The Land Rehabilitation Act reveals potential negative impacts on waterfowl habitat, because the Act allows municipalities to rehabilitate agricultural areas, possibly at the expense of wetlands.

The Land Rehabilitation Act includes a clause that could provide a means of instituting a municipal wetlands tax credit or similar economic incentive to preserve waterfowl habitat. Section 3(2)(h) states that a municipality may exempt any lands from all or any part of municipal tax assessment. Exempting wetlands from municipal tax assessment is a potential waterfowl habitat preservation alter-

native. A municipality has the authority to institute such exemptions through the Land Rehabilitation Act (see Municipal Assessment Act, p.70).

4.1.3 Agricultural Productivity Council Act

The Agricultural Productivity Council Act is administered by the Department of Agriculture. The Agricultural Productivity Council, an advisory agent of the government, with no executive power, controls provisions within the Act. The major objective of the Council is:

to further the development of the agricultural industry in Manitoba in order that it may make a greater contribution to the economy of the province to the mutual benefit of those employed in the industry and to the citizens of the province.

Section 4(2) outlines specific objectives:

- to consider obstacles to economic growth and development of the agricultural industry of Manitoba and the development of means of overcoming them.
- to examine any factor which may influence the cost of production and productivity and the competitive ability of the agricultural industry of Manitoba.
- to analyze and develop ideas and proposals calculated to benefit the agricultural industry of Manitoba.

The activities of the Agricultural Productivity Council, now dormant, have attempted to increase agricultural productivity in Manitoba. The objectives of this provincial agency would

appear to consider waterfowl and their habitat as obstacles to economic growth.

4.1.4 Agricultural Credit Corporation Act

The Agricultural Credit Corporation Act administered by the Department of Agriculture outlines the powers of the Manitoba Agricultural Credit Corporation. The M.A.C.C. objectives are to provide credit to farmers, assist farmers in obtaining credit and assist in farm development. The Corporation provides loans and credit to assist the farmer:

- to diversify his farm operations; or
- 2. to carry on or improve a farming operation; or
- to relocate on new farmland where he will be better able to carry on a farming operation; or
- 4. to establish or develop a farming operation that will assist other farmers in their operation.

In July 1978, a current loan program was established. Prior to this date, Agricultural Credit Corporation loans were not available for land purchase and the majority of loans were for equipment purchase. From July 1978 to March 1980, direct loans of \$32.5 million were approved with \$22 million of this amount used for land purposes. A comparison of approved direct loans by purpose for 1979-80 reveals that 69% of the loans were for land purchase and that permanent land improvements comprised less than one percent of approved direct loans. (Table 9).

Loan statistics of the Manitoba Agricultural Credit Corporation are not filed by municipality, therefore

TABLE 9

MANITOBA AGRICULTURAL CREDIT CORPORATION APPROVED DIRECT LOANS BY PURPOSE PERCENTAGE COMPARISON 1979-1980

	1979	- 1980
PURPOSE	90	Amount (\$)
Purchase of Land by Borrower	69	16,878,988
Permanent Improvements, Buildings	8	1,986,905
Permanent Improvements, Land	-	80,655
Consolidation of Debts	18	4,315,444
Purchase of Livestock	4	809,923
Purchase of Equipment	_	84,284
Other Purposes	1	203,192
TOTAL	100	24,359,391

Source: Manitoba Agricultural Credit Corporation, Annual Report, March 31, 1980.

determination of the exact nature and location of loan activity in Manitoba is beyond the scope of the study.

However, 1979-80 statistics reviewed reveal insignificant direct impact of the Corporation's loans on waterfowl habitat in Manitoba (Table 9).

4.1.5 Agricultural Societies Act

The Agricultural Societies Act outlines the establishment and operation of agricultural societies in Manitoba.

The objective of the Act is to promote agricultural improvement in Manitoba. Selected examples of activities that agricultural societies provide, include the following:

- good farming competitions
- . circulation of agricultural literature
- the promotion of progress of any branch of agriculture
- meetings for the delivery of lectures and discussions on subjects connected with agricultural and sponsor study groups.

Agricultural societies in Manitoba, representing a substantial proportion of Manitoba's farming community could serve as a forum to educate farmers about wetland values. Potential components of a regional habitat preservation strategy could be conveyed to Manitoba farmers through agricultural societies. Numerous societies within Manitoba could provide important farming community opinion on preservation programs or potential implications of such a program

on the farmers.

4.1.6 The Agricultural Lands Protection Act

Section 2(1) states that an ineligible person shall not purchase or otherwise indirectly acquire land in Manitoba which would result in that person owning or having an interest in land that exceeds the aggregate 20 acres (8.1 hectares). Foreign controlled corporations can own or acquire land in excess of 20 acres (8.1 hectares) if the corporation owned or acquired the land prior to April, 1977; or the corporation acquires land on or after April 1, 1977 if the right to obtain title to the land arose prior to that date.

Section 15(1) establishes the Manitoba Agricultural Lands Protection Board. Three significant powers of the Board are:

- a) to carry out surveys, research programs and agricultural statistics; and
- b) conduct hearings and investigations and determine and prescribe the scope thereof for the purpose of determining whether a person has purchased or otherwise acquired land in contravention of the Act; and
- c) subject to the guidelines established by the regulations, the Board may exempt any person or class of persons, or land or classes of land from this Act.

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An ineligible person is a person who is not a resident
of Canada.

It seems possible that the Board may exempt corporations from this Act, to acquire land in excess of 20 acres (8.1 hectares). These purchases could include wetlands, therefore creating potential impact on waterfowl habitat. It is unlikely that waterfowl habitat is an environmental concern when the Board reaches decisions on proposed agricultural land acquisition.

4.2 Department of Natural Resources

The Department of Natural Resources administers significant legislation in terms of land and water policy in Manitoba. The following statutes are included in this section of the review:

- . Water Rights Act
- . Water Resources Administration Act
- . Conservation Districts Act
- . Crown Lands Act
- . Wildlife Act

4.2.1 Water Rights Act

The Water Rights Act is an important statute in Manitoba. Although it lacks clarity and consistency in certain sections due to numerous amendments, it contains pertinent provisions concerning individual land drainage.

Section 7(1) indicates that the use of all water at any time is vested in the Crown:

...the property in, and the right to the use of, all water at any time in any river, stream, watercourse, lake, creek, spring, ravine, canyon, lagoon, swamp, marsh or other body of water shall be deemed to be vested in the Crown.

Section 7(2) and 7(3) restrict damming or diverting of any water without written authority from the Minister, or under legal right. The term "rights" has been used in various ways: As Hohfeld (1913) states:

...the term "rights" tends to be used indiscriminately to cover what in a given case may be a privilege, a power, or an immunity, rather than a right in the strictest sense, which always is correlated with a duty of non-interference resting on someone.

There is a "Saving Provision", section 7(7), that allows landowners to drain within the boundaries of their land. This section has potential impact on waterfowl habitat because it allows landowners to consolidate wetlands within their boundaries.

The approval process for drainage works in Manitoba is unclear and inconsistent. Section 51(1) states that approval in writing is necessary from the Minister to construct any drainage works (drains or ditches). Subsection (4) then indicates that after initial approval, a license may not be necessary to construct and operate the proposed drainage works. Presently, an increasing demand for irrigation water has created a backlog of water rights licenses.

Consequently, the approval of water rights licenses can take up to two years (R. Jones, personal communication, February 1982). This delay can encourage farmers or organizations to proceed with projects without approval. The Water Rights Act contains inconsistencies and unclear statements. Since other important Manitoba statutes concerning land drainage practices are subject to the Water Rights Act, numerous legislative interpretations are evident. This can result in land management practices with potential negative impacts on waterfowl habitat.

4.2.2 Water Resources Administration Act

The Water Resources Administration Act clearly outlines the powers it provides to the Minister and the Lieutenant Governor-in-Council. These powers include the authority to construct and operate any drainage works and the power to obtain jurisdiction over any existing drainage channel. Jurisdiction over provincial waterways is clearly defined. Section 13(1) provides authority to the Lieutenant Governor-in-Council to designate any water control works, natural water channel, or lake as a provincial waterway (Appendix C).

¹Water control works - works for the conservation, control, disposal, protection, distribution, drainage, storage or use of water; or for the protection of land or other property from drainage by water.

Although section 270 of the Municipal Act gives each municipality jurisdiction over all drains within its boundaries, Water Resources Branch of Department of Natural Resources assumes jurisdiction over provincial waterways. Section 14(1) states:

...all jurisdiction over, and control and possession of every provincial waterway are vested in the government; and subject to subsection (5), upon designation of a provincial waterway, the municipality in which the provincial waterway is situated is thereupon relieved of any responsibility of maintaining or repairing the provincial waterway.

All other drains, not designated as a provincial waterway by the Department of Natural Resources, fall under the jurisdiction of municipal governments.

4.2.3 Conservation Districts Act

The Conservation Districts Act outlines the procedure of establishing conservation districts in Manitoba. The Minister of Natural Resources is responsible for administration of the Act. The purpose of the Act is two-fold:

- 1) to provide for the conservation, control and prudent use of resources through the establishment of conservation districts
- 2) to protect the correlative rights of owners

The establishment of conservation districts in Manitoba is significant to drainage law because district boundaries follow drainage basin boundaries. Also, municipal

jurisdiction over drains and surface water becomes inoperative and management is assumed by a conservation district board.

Section 15(1) states:

Where on the establishment of one district, any rights, jurisdiction, authority or control are under The Municipal Act or any other Act of the Legislature, vested in the municipality with respect to,

- a) the reclamation and use of flooded, wet or low lying land,
- b) the deepening, dredging of watercourses
- c) drain construction
- d) provision of water supply
- e) control of natural watercourses
- f) the use and development of land in any way that relates to the conservation of water resources within the district;

the municipality shall not thereafter have or exercise within the district those rights or that jurisdiction.

Section 15(2) allows municipal jurisdiction if a project is under the direction of the municipality on the date of establishment of the district.

An important component of a conservation district is the conservation district board. The board, consisting of chairmen from each sub-district committees, has all jurisdiction over the area within the conservation district. The aims, objectives and powers of the board are to promote the conservation and control of the water resources within the district and, for that purpose, it shall put into effect,

operate or maintain a scheme in respect of the district for the purpose of controlling, developing, protecting, restoring, or using,

- a) the water resources within the district;
- b) the land, forest, wildlife and recreational resources within the district (section 14(1))

Section 16(1) outlines the general powers of the Board. Subsection (q) states:

...the board may enter into an agreement with the owner of any land for the carrying out of any scheme or conservation practice considered necessary by the Board for the purpose of achieving its aims and objectives.

The agreement may be signed for the purpose of:

- i. planting of trees
- ii. the retirement of land to permanent or temporary forage cover
- iii. the exclusion of animals from lands to prevent erosion
 - iv. the protection of watercourses
 - v. the storage of water, or the retarding of flow thereof, for any purpose with- in the aims and objectives of the Board.

Section 27 states that land and personal property acquired for or on behalf of the Board, and any personal property and works erected, acquired, or held by the Board for the purposes of this Act are exempt from municipal taxes. Further investigation into agreements between the Conservation District Boards and individual farmers is necessary to determine if wetlands are acquired by the board or if

farmers can obtain tax exemptions on land in agreement with the Conservation Districts Board.

The Conservation District Act is unclear in the outline of powers of the Conservation District Boards. Agreements may be signed between the Board and individual farmers for the purpose of protecting watercourses, storing water or retarding flow. Contrary to this authority, section 38 (2) states that no person shall alter the flow of waters within a district without first obtaining a permit from the Board. Further investigation reveals that the Conservation District Board must approve individual permits, but if the proposed drainage work is small, the Board will approve the permit without requiring the permit to become subject to the Water Rights Act. There is no definite quantified value for "small".

If the Board feels that the proposed drainage works are of significant scale, provincial agriculturalists are asked to assess the proposed work. Again, it is unclear what constitutes "significant" drainage works. Often board members interests become involved in the decision-making process. The Conservation District Board's approval process for proposed drainage works lacks clarity. Definition of the magnitude of proposed drainage works by the Conservation District Boards is subjective.

4.2.4 Crown Lands Act

The Crown Lands Act was enacted in 1930 when the transfer of jurisdiction over resources to the provinces occurred (Resource Transfer Agreement). The Dominion Lands Act and the Provincial Lands Act were superceded by the Crown Lands Act. Crown land includes land, whether within or without the province, vested in the Crown. Any expression in an Act of legislature including "provincial lands" is also considered Crown land.

Under Section 7(1), the Lieutenant Governor-in-Council may set aside Crown land for persons engaged in a project of draining and reclaiming swamp lands. Section 7(2) states that land disposed, pursuant to subsection (1), exceeding 4 townships must be ratified by legislature. Under section 9(1), the Lieutenant Governor-in-Council may lease Crown land or issue permits of occupation for, Ranch Grazing Leases, Farm Grazing Leases, Casual Grazing Permits and Casual Hay Permits. The impact of the Crown Lands Act on waterfowl habitat is minimal because most wetlands in Manitoba are located on private lands. In southwest Manitoba, approximately 3.0% of class 1 to 3 waterfowl habitat is located on Crown land (Rakowski et al., 1975). Although Crown waterfowl habitat may actually be greater than 3%, sloughs on Crown land are also drained (R. Jones, pers. comm., February, 1982).

4.2.5 Wildlife Act

The Wildlife Act is administered by the Department of Natural Resources. Under section 2, the Lieutenant Governor-in-Council may by regulation, designate areas of the province for the management, conservation and enhancement of the provincial wildlife resources. A land use or uses to which each area is devoted, may also be prescribed. Although waterfowl are considered a wildlife resource in this Act, the Wildlife Act is primarily concerned with Crown land wildlife habitat. Since most waterfowl habitat is on privately owned land, there is minimal impact on waterfowl habitat.

Section 50(1) outlines provincial Crown land regulations concerning wildlife habitat:

No person shall destroy or damage habitat on Crown lands, except pursuant to a license, permit or other authorization issued or given under this or any other Act of Legislature.

Section 89 authorizes the Lieutenant Governor-in-Council to make regulations:

- (a) designating areas of land for wildlife habitat preservation on Crown Land; and,
- (b) prescribe programs of land use with respect to preservation, maintenance and restoration of wildlife habitat on Crown Land.

Under the Wildlife Act land designated as wildlife habitat,

may partially consist of private land. Section 4 states:

An area designated for the better management, conservation, and enhancement of the wildlife resources of the province, may consist of Crown land, or other land.

Land that is designated as non-Crown land may be proposed as a Waterfowl Control Area, Game Bird Refuge or Wildlife Refuge section 5(2). The government may acquire, by purchase, exchange or expropriation, under the Expropriation Act, the land required as a designated area for the better management, conservation and enhancement of the wildlife resource.

In final consideration of the Wildlife Act, authority is issued for joint habitat management programs that have potential positive waterfowl habitat impacts. Section 84 outlines this authority:

Subject to approval of the Lieutenant Governor-in-Council, the Minister of Natural Resources may enter into an agreement with the federal government, the government of a province or territory in Canada, with a municipality or local government district, or any society, group, organization, persons, or individual for;

- a) the joint management of wildlife, or mutual assistance in the enforcement of laws relative to wildlife; or
- b) the development and implementation of joint information, educational or training programs; or
- c) the joint management of wildlife habitats.

A joint management example is the St. Malo Wildlife Management Area in southeast Manitoba. A cooperative agreement exists between Manitoba Department of Natural Resources and a private hunting and fishing club. Such a joint habitat management program provides positive preservation incentives.

4.3 Department of Municipal Affairs

The following statutes, administered by the Department of Municipal Affairs, are included in this section of the review:

- . The Municipal Act
- . The Municipal Assessment Act
- . The Planning Act
- . Land Acquisition Act
- . Expropriation Act

4.3.1 The Municipal Act

The Municipal Act, section 270, provides each municipality with the jurisdiction over all drains within its boundaries. Division II, relating to Drainage of Land, contains all the provisions relating to waterfowl habitat. Two sections within the Act pertaining to waterfowl habitat are section 273(1):

A private landowner may file a petition with the municipality to construct a dam or ditch across the land.

and section 312:

The council of any municipality may pass by-laws for reclaiming, filling in, and converting into land suitable for building or other purposes, rocky, barren, or waste lands, or any wet or low lying lands or shoreland.

Section 272(1) gives municipal council the power to pass drainage by-laws:

Subject to section 276 and to the Water Rights Act, the council of any municipality may pass by laws; (a) for constructing, opening, making improvements, deepening, contracting, widening, altering, diverting, straightening, discontinuing or stopping up any drain or natural watercourse or surface watercourse, or for providing outlets therefor or preventing surface water flooding into or within the municipality, and for acquiring by expropriation or otherwise, any land in or adjacent to the municipality in any way necessary or desirable, in the opinion of the council, for any purpose... for determining the course of, and regulating, drains or natural watercourses in the municipality, for preventing the obstruction thereof in any manner, and for protecting them from enroachment or injury...

The Municipal Act prohibits the unnecessary impoundment of water. This fact is evident in section 272(2):

Any person cannot interfere with municipal drains.

Section 276(1):

Watercourses are not to be filled up or obstructed.

Section 276(2):

Stopping drains at property boundaries is prohibited.

Section 277(1):

The munipality has the jurisdiction to keep every drain within its bound-. aries properly cleared out and in repair.

The Municipal Act is prohibitory in certain sections but includes the word "may", implying enabling action on the part of a municipality or individual landowner. An example is section 273(1). Petitions may be filed with a municipality to construct drains. The majority may be accepted because municipal councillors are often neighbours of farmers that submit petitions. Furthermore, the councillors may engage in similar drainage activities (Zittlau, 1979). Consequently, through interpretation, the Municipal Act partially contributes to unnecessary drainage.

4.3.2 The Municipal Assessment Act

The Municipal Assessment Act provides guidelines for the assessment and taxation of private lands. Section 2(1) delegates the setting and collection of land taxes to local municipalities. The province is issued the responsibility to designate powers of taxation under the BNA Act, section 92, clause 2.

The individual property information is recorded in assessment rolls. The assessment is based on a percentage of current or market value with reassessments every five years. Included in the establishment of market values for assessment of rural property are the following considerations:

- locational advantages and disadvantages
- . soil quality and productive capability
- income-earning potential
- · resources found on the property

Another important factor is how an individual property assessment compares to other assessments within a municipality, thus ensuring an equitable distribution of the tax burden. The provincial assessment and taxation of private lands by careful planning can be used to assist waterfowl and wildlife habitat preservation programs. An example is a wetlands tax credit program.

A provincial tax rebate program can represent an attempt to reduce the rate of waterfowl habitat loss on privately owned agricultural land. Landowners with wildlife habitat would qualify for a property tax rebate on all habitat acres. A tax rebate program would not require the establishment of extensive bureaucracy. Existing legislation and institutions could be utilized (The Land Rehabilitation Act). A property tax credit program was initiated in Minnesota in 1980. Private landowners have generally received the

program with optimism (Peterson, C.C. and C.R. Madsen, 1981).

The implementation of a tax rebate program for wetlands relies on the principle that wetlands are beneficial and valuable to most provincial residents. Unfortunately, lost revenue occurs when a tax credit is applied because the full tax value is not collected. Although other levels of government can reimburse municipalities for lost tax revenue, justification of a tax rebate program is difficult.

Benefits of preserving wetlands must be accurately determined and quantified to promote the justification of a tax rebate program. Farmers are providing a public benefit in preserving wetlands. Provincial taxpayers must pay for these benefits to the extent of annual rebate payments plus initial implementation costs, although wetlands may not be beneficial to some taxpayers. Comments on the Minnesota wetland tax credit program support the importance of accurately determining and quantifying wetland benefits:

If dollar values are properly attached to each of the wetland benefits, the rebate payments and administration costs of a tax credit may only be a fraction of the total benefits received (Madsen, 1981)

In summary, a tax rebate program can be an economic incentive to preserve waterfowl habitat. Accurate determination and quantification of wetland benefits is necessary to justify the implementation of such a program.

4.3.3 The Planning Act

The Planning Act provides municipalities with mechanisms to make land use decisions. The legislation serves three basic functions:

- 1. Supervision over the subdivision of land.
- 2. Decision-making structure within government.
- 3. Manitoba land use policies.

Manitoba Land Use Policies contain statements that have potential implications on waterfowl habitat because the policies affect land use.

The Provincial Land Use Policies (Appendix B) were drafted by the Provincial Land Use Committee of Cabinet.

The Committee was established by Order-in-Council to provide a specific policy on land use decisions. The Committee functions as a coordinating mechanism for the development of land use policy proposals, projects and legislation. The Committee is comprised of the following five Ministers:

- 1. Highways and Transportation
- 2. Municipal Affairs
- 3. Natural Resources
- 4. Finance
- 5. Agriculture

A key component of the decision-making structure is the Interdepartmental Planning Board (IPB). The Board members are established by Order-in-Council and include deputy

¹ Manitoba Regulation 217/80 under Planning Act (Manitoba Gazette, Nov. 29, 1980).

ministers or equivalent staff from all departments and agencies having a significant role in land use planning. The departments and agencies represented on the IPB include:

- . Agriculture
- . Attorney-General
- . Consumer and Corporate Affairs and Environment
- . Cultural Affairs and Historic Resources
- . Economic Development and Tourism
- . Energy and Mines
- . Highways and Transportation
- . Municipal Affairs
- . Natural Resources
- . Northern Affairs
- . Manitoba Housing and Renewal Corporation
- . Manitoba Hydro
- . Manitoba Telephone System

The Provincial Land Use Policies were designed to guide management of Manitoba's land resources, avoid waste and misuse of public funds and maintain an acceptable standard of environmental quality. The thirteen policies inform municipal governments of the land use interests of the provincial government, thus helping municipal governments prepare local land use initiatives. The policies are concerned with preservation of agricultural land, recreational land use, hazard lands, highways and critical and renewable resource areas. Policies 9 and 10 are habitat-preservation oriented in their

intent but their application can contradict policy objectives.

Policy 9 states:

Areas critical to the existence of rare or endangered plants or animals, significant natural features, and cultural and historical sites of the region shall be identified and should be designated and preserved.

This statement is broad, general and preservation oriented providing potential positive initiatives towards waterfowl habitat preservation. Positive preservation initiatives will only occur if waterfowl become rare or endangered in a region of Manitoba according to the Provincial Land Use Committee.

Policy 10 specifically states that areas shall be identified, designated and reserved for renewable production, utilization and preservation by outlining:

- a) areas of existing prime wildlife habitat,
- b) existing exceptional forestry value areas,
- c) areas of existing prime fish habitat,
- d) other areas of renewable resource significance.

The application of this policy does not promote wetlands preservation because the application protecting wetlands from development, exempts agricultural and agricultural-related

purposes:

No subdivision or development, except for agricultural and agriculturalrelated purposes, shall be approved for the following types of resource areas, if it can clearly be demonstrated that the proposed subdivision or development will conflict with their resource values:

- a) existing wetlands greater than, or equal to 40 acres.
- b) existing wetlands less than 40 acres within areas designated class 1, 2, 3 by Canada Land Inventory Wildlife-Waterfowl Classification.

Since agricultural related purposes are exempt from this restriction, it is evident that agricultural development can occur at the expense of wetlands, even though Policy 10 is preservation oriented. This is an example of policy objectives directly contradicting policy application. The agricultural exemption should be removed from Policy 10.

The Planning Act can potentially affect waterfowl habitat in the interpretation of the establishment of special planning areas. Section 12(2) allows the Lieutenant Governor-in-Council to designate an area of land to be a special planning area, where the land has a special provincial or regional significance. Although section 12(1) states that the Minister may recommend to the Executive Council the establishment of an area for the creation and preservation of wilderness areas and wild animal and bird sanctuaries, section 12(3) and 12(6) make this area establishment unlikely.

Section 12(3) requires the Minister to consult with the council of the municipality in which the area is situated. Section 12(6) requires the Municipal Board to consult councils and hold public hearings. If the municipal councils consulted are comprised of a majority of farmers, it is unlikely that areas will be designated for habitat preservation.

4.3.4 The Expropriation Act

The Expropriation Act relates to the Land Acquisition

Branch and the Land Value Appraisal Commission, established

under the Land Acquisition Act. Section 1(1)g defines

expropriation as acquisition of title to land without consent of the owner. Section 2(1) states that the Act applies

wherever an authority expropriates lands or causes injurious affection to land.

Since the Land Acquisition Branch, operating by the Land Acquisition Act carries out appraisals and negotiations to acquire Crown land for authorities, there is little impact on waterfowl habitat. Most destruction of waterfowl habitat occurs on private owned agricultural lands (see Crown Lands Act).

4.4 The Highways Department Act

The Highways Department Act is administered by the Department of Highways and Transportation. Section 3 authorizes the administration, management, direction and

control of the Department to the Minister of Highways and Transportation. Section 7(1) outlines the acquisition of property for departmental roads:

The Minister may acquire by purchase, lease, expropriation or otherwise, any real property or by purpose, lease, or otherwise any personal property that he deems necessary for departmental roads and for purposes connected therewith; and he may hold, manage and develop such property.

Section 7(2) concerns highway drainage:

With consent of the Minister of Agriculture, the Minister of Highways may construct and maintain, and acquire land for the purpose of drains, draining water from departmental roads.

Manitoba municipalities have jurisdiction over all drains within their boundaries (Section 270, Municipal Act).

Water Resources Branch of the Department of Natural Resources assumes jurisdiction over provincial waterways (section 14, Water Resources Administration Act) and has the power to obtain jurisdiction over any existing drainage channel. However, section 7(2) should be amended to include Department of Natural Resources consent, thus correctly reflecting drainage jurisdiction in Manitoba.

The Consent of the Minister of Agriculture should not be exclusive in Section 7(2).

TABLE 10
SUMMARY OF MANITOBA LEGISLATION

Provincial Department	Legal Instruments	Classification of Potential Impact on Waterfowl Habita	
Agriculture	. Department of Agriculture Ac	t Category 1	
	. Land Rehabilitation Act . Agricultural Productivity	Category 2	
	Council Act . Agricultural Credit Corp-	Category 1	
	oration Act	Category 2	
	 Agricultural Societies Act Agricultural Lands Protec- 	Category 1	
	tion Act	Category 1	
Natural			
Resources	. Water Rights Act . Water Resources Administra-	Category 2, 3	
	tion Act	Category 2	
	. Conservation Districts Act	Category 2, 3	
	. Crown Lands Act	Category 1	
	. Wildlife Act	Category 1	
Municipal			
Affairs	. The Municipal Act	Category 3	
	. The Municipal Assessment Act		
	. The Planning Act	Category 3	
	. Expropriation Act	Category 1	
Highways and Transporta-			
tion	. The Highways Department Act	Category 2,3	

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

Federal and Manitoba legislation encourages the expansion of land use activity that can potentially encroach on waterfowl habitat. This study identified 12 federal and 16 Manitoba statutes that revealed a varying degree of impact on waterfowl habitat ranging from direct and actual to potential. The overall legislative impacts were negative towards waterfowl habitat preservation.

5.2 Conclusions and Recommendations

The legislation reviewed, provides landowners with incentives to increase cultivation on marginal lands. The incentives represent price support, tax deductions and exemptions and marketing strategies. For example, the Canadian Wheat Board quota system encourages expansion of cultivated acreage by requiring land to be broken before it is assigned a quota. Conversely, the reviewed legislation generally lacked habitat preservation incentives. Modification of Manitoba's land taxation and assessment procedures is a potential method of providing landowners with incentives to preserve wetlands. Therefore I recommend that:

1) Canadian Wildlife Service initiate a study in 1982 to assess the feasibility of implementing a waterfowl habitat preservation program in Manitoba. A possible component is a wetland tax rebate.

Legislative review was difficult due to a lack of clarity

in statements and clauses in the statutes. For example,
Manitoba Land Use Policy 10 of the Planning Act contains an
objective to preserve areas of existing prime wildlife habitate, including waterfowl habitat. The application of this
policy exempts agricultural and agricultural related purposes from development restrictions. Therefore the policy
objective contradicts its application. Also, the administration of drainage law in Manitoba is ambiguous in terms
of outlining land management responsibilities. Drainage
permit application and approval procedures lack clarity.
Hence the following actions are necessary:

- 2) Amendment of Manitoba Land Use Policy 10 to remove the existing agricultural exemption from development restriction.
- 3) Amendment of section 7(2) of the Manitoba Highways Department Act to include the consent of the Minister of Natural Resources in land acquisitions to drain water from departmental roads.

The overall land-use decision-making process in Manitoba offers little opportunity for interaction between land use planners and wildlife managers. Landowner education from conservation district boards, sub-district committees and Manitoba agricultural societies, of waterfowl habitat benefits, is an important component of this decision-making process. I recommend that Canadian Wildlife Service and Manitoba Department of Natural Resources increase their profile of habitat preservation efforts by:

4) becoming involved with project advisory committees within the Implementation

Committee of Canada-Manitoba Subsidiary Agreements

- 5) educating Manitoba agricultural societies and P.F.R.A. decision-makers about wetland benefits by written and visual presentation at meetings. The educational theme must be a sustained effective promotion of long term productivity from the existing land base
- 6) provide consultation on Manitoba conservation district boards and sub-committees to ensure that unnecessary drainge practices are not approved by the district boards

The Manitoba Environmental Assessment and Review Process investigates a variety of projects according to established criteria and definitions.

Environmental assessments are carried out for all proposed provincial projects that may significantly alter or affect the environment, as a result of contamination of air, water and soil.

Since "wildlife habitat" is not specifically included in the definition of "environment" (air, water and soil) by this body, drainage projects that may potentially have negative impacts on waterfowl habitat, may not be subject to M.E.A.R.P. review. I recommend:

- 7) the Manitoba Department of Environment expand the definition of "environment" to include wildlife habitat, and
- 8) remove the clause "as a result of contamination of air, water and soil" from project selection criteria

Legislation is an important component of waterfowl habitat preservation. A regional strategy towards habitat management involves complex interaction among government officials, private landowners, interest groups and the legislation that governs land use planning. The preceding legislative review has provided a base from which further habitat preservation efforts can be initiated.

In this context, government agencies at all levels must develop an integrated approach towards waterfowl habitat preservation that will:

- modify legislation to eliminate negative habitat impacts,
- provide positive incentives for wetland conservation,
- 3) encourage each level of government to preserve waterfowl habitat within their jurisdiction; and
- 4) allow cooperation between government levels in regional implementation of waterfowl habitat preservation incentives.

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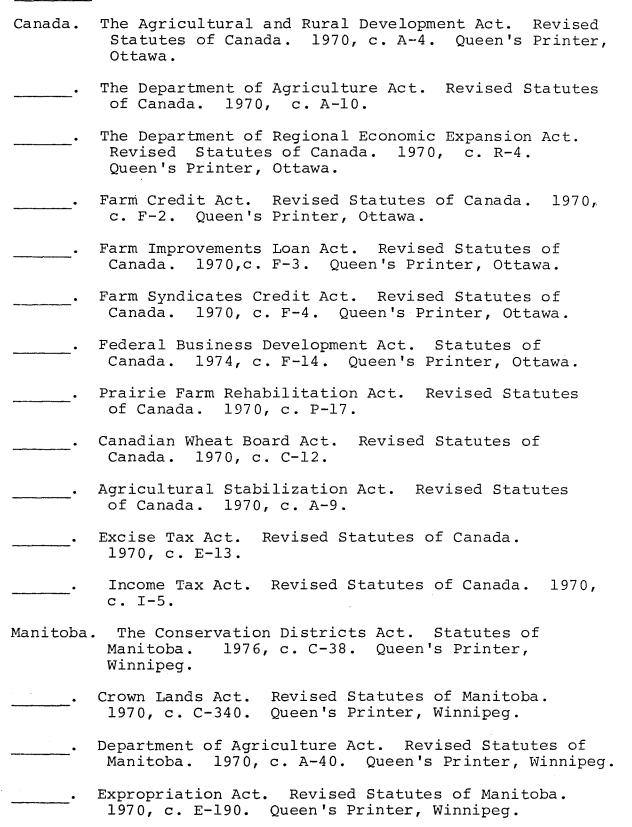
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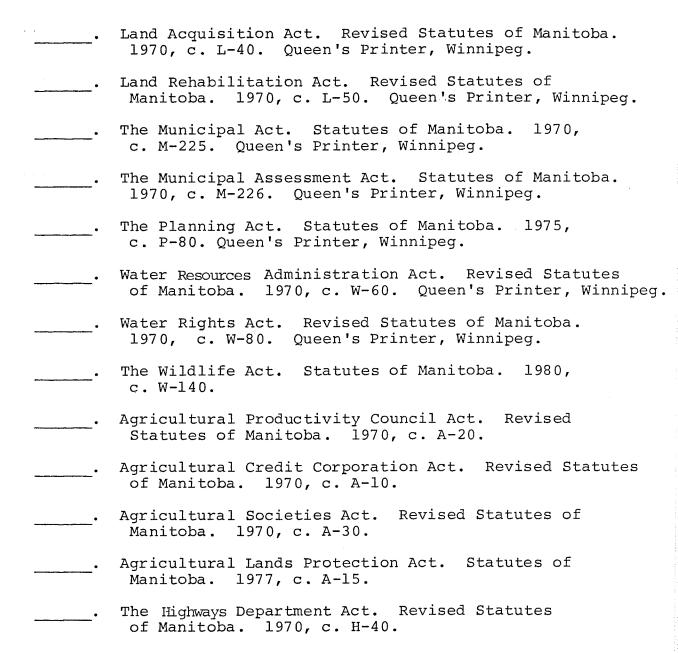
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Statutes





APPENDIX A

FEDERAL DEPARTMENT OF AGRICULTURE

MINISTER

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Canada Grain Commission	Canadian Dairy Commission	Farm Credit Corpora	Mi	eputy inister	Canadian Livestock Feed Board	National Farm Products Marketing Council	Stabili- zation	Agric. Products Board
				 -	1		 1	
Senior Ass' Deputy Minister Policy and Planning	t Director Intergove tal and D tional Se Branch	ernmen- Interna-	Ass't Ministenance Admini	er Fi-	Director General Infor. Services	Director General Admin. Branch	Senior D Minister Operation	

LEGISLATION

The Minister of Agriculture is responsible for the following statutes:

Advance Payments for Crops Act
Agricultural Products Board Act
Agricultural Products Co-operative Marketing Act
Agricultural Products Marketing Act
Agricultural Stabilization Act
Animal Disease and Protection Act
Canada Agricultural Products Standards Act
Canada Dairy Products Act
Canada Grain Act
Canadian Dairy Commission Act
Cheese and Cheese Factory Improvement Act
Cold Storage Act
Criminal Code, Sec. 188, Racetrack Supervision

Crop Insurance Act Department of Agriculture Act Experimental Farm Stations Act Farm Credit Act Farm Improvement Loans Act Farm Products Marketing Agencies Act Farm Syndicates Credit Act Feeds Act Fertilizers Act Foot and Mouth Disease, Control and Extirpation Act Fruit, Vegetables and Honey Act Grain Futures Act Hay and Straw Inspection Act Humane Slaughter of Food Animals Act Inland Water Freight Rates Act Livestock and Livestock Products Act Livestock Feed Assistance Act Livestock Pedigree Act Meat and Canned Foods Act Meat Inspection Act Milk Test Act Pest Control Products Act Pesticide Residue Compensation Act Plant Quarantine Act Prairie Farm Assistance Act Seeds Act Wheat Co-operative Marketing Act

Legislation for which responsibility is shared with

another ministry:

Inspection and Sale Act
(Agriculture; Consumer and Corporate Affairs)
Maple Products Industry Act
(Agriculture; Consumer and Corporate Affairs)
Western Grain Stabilization Act
(Agriculture; Minister Responsible for the Canadian
Wheat Board)

Canada, Department of Agriculture Annual Report, 1978/79.

APPENDIX B

MANITOBA LAND USE POLICIES*

- Policy 1: Areas should be preserved for a full range of agricultural activities where agriculture is in the dominant position on prime agricultural land and where agricultural activities are dominant on lower class lands and it is desirable to protect such activities.
- Policy 2: Areas should be preserved for limited agricultural use where because of the mixture of the land uses, a full range of agricultural activities may no longer be possible.
- Policy 3: Lands may be designated for rural residential development provided that the siting and design of such development reflects its role as an alternative to the urban life-style and not as an evolutionary step towards an urban environment. In addition, the development shall be planned to minimize conflict with resource-related industries and activities and to minimize public sector costs.
- Policy 4: Proposed urban land uses shall strengthen existing urban centres rather than establish new competing centres.

 Growth of existing centres:
 - (a) shall be planned in such a manner that sewer and water services can be made available at an economically feasible cost;
 - (b) shall, if the centre is bordering on one side of a major highway, be restricted to the same side of that highway, wherever feasible;
 - (c) may necessitate urban expansion onto adjoining lands. In these instances, the land requirements of the urban centre of the urban centre shall normally have priority over the existing use of that land.
- Policy 5: Development plans shall identify areas of high recreational capability and existing recreation developments of regional and provincial significance.

^{*}Manitoba Regulation 217/80 being a regulation under The Planning Act respecting Provincial Land Use Policies. Detailed policies are published in The Manitoba Gazette, November 29, 1980.

- Policy 6: Recreational developments shall be permitted only to the carrying capacity of the resource being utilized. Such developments should be planned in harmony with the natural environment. Public access to and use of key resource areas shall be preserved.
- Policy 7: Waterways, water bodies and shorelands having environmental, recreational or other general significance to the public should be afforded protection.
- Policy 8: Recreation and resource areas shall be afforded protection from adjacent uses that would degrade or endanger their primary function.
- Policy 9: Areas critical to the existence of rare or endangered plants or animals, significant natural features and cultural and historical sites of the region shall be identified and should be designated and preserved.
- Policy 10: Areas shall be identified, designated and reserved for renewable resource production, utilization and preservation by outlining:
 - (a) areas of existing prime wildlife habitat;
 - (b) existing exceptional forestry value areas;
 - (c) areas of existing prime fish habitat;
 - (d) other areas of renewable resource significance.
- Policy 11: Lands subject to hazards such as flooding or erosion should be retained for open space or agricultural cropping.

 More intensive development shall only be considered where the hazard can be eliminated or where the use would be compatible with the risk.
- Policy 12: New development should be restricted in the vicinity of provincial highways so as to avoid any interference with the main function of this regional transportation network.
- Policy 13: Economically valuable aggregate and quarry mineral deposits should be protected from surface land uses that would interfere with their ongoing and future exploitation.

APPENDIX C

MANITOBA WATERWAY CLASSIFICATION SYSTEM

- First Order Waterways: drains or watercourses serving a watershed with a drainage area up to one mile.
- Second Order Waterways: drains or watercourses serving a watershed with a drainage area greater than one square mile or having a tributary or tributaries of the First Order.
- Third Order Waterways: drains or watercourses formed at the point of confluence of at least two Second Order Waterways and may have tributaries of the Second Order and lower.
- Fourth Order Waterways: drains or watercourses formed by the confluence of at least two Third Order Waterways and may have tributaries of the Third Order or lower. Higher order waterways (orders 5, 6 and 7) are defined in the same manner.