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# MANAGEMENT PLAN

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## KING GEORGE IV

## ECOLOGICAL RESERVE



**Parks and Natural Areas Division  
Department of Environment and Conservation  
Government of Newfoundland and Labrador**

1997

## TABLE OF CONTENTS

1.0	THE KING GEORGE IV ECOLOGICAL RESERVE .....	1
1.1	Introduction .....	1
1.2	History .....	
1.3	Objectives .....	2
2.0	NATURAL FEATURES .....	4
2.1	Location and Setting .....	4
2.2	Climate .....	4
2.3	Geology .....	5
2.4	Flora .....	5
2.5	Fauna .....	6
2.6	Summary .....	7
3.0	MANAGEMENT POLICIES .....	8
3.1	Management and Administration .....	8
3.1.1	Hunting and Trapping .....	9
3.1.2	Forest Harvesting .....	9
3.1.3	Recreational Activity .....	9
3.1.4	Aircraft Activity .....	10
3.1.5	Domestic Animals .....	10
3.1.6	Research and Monitoring .....	10
3.1.7	Mineral Exploration and Development .....	11
3.1.8	Information and Education .....	11
3.1.9	Ecological Integrity .....	11
	APPENDIX I - Selected References .....	13
	APPENDIX II - Habitat Description .....	14
	APPENDIX III - Reserve Order and Regulations .....	16

## Forward

*In 1980, the Wilderness and Ecological Reserves Act was established to protect and preserve special natural areas in Newfoundland and Labrador. Several areas of the Province have been set aside as Ecological Reserves under the Act. These areas contain representative or unique ecosystems, species, or naturally occurring phenomena. The objectives of establishing an Ecological Reserve as stated in the Act are:*

- 1. To provide for scientific research and educational purposes in aspects of natural environment,*
- 2. To preserve the habitat of an animal or plant species that is rare or endangered;*
- 3. To provide standards against which the effects of development in other areas may be measured;*
- 4. To provide an opportunity for study of the recovery of ecosystems from the effects of modification by human beings;*
- 5. To preserve rare botanical, zoological, geological or geographical characteristics;*
- 6. To preserve representatives of distinct ecosystems in the province; or*
- 7. To preserve organisms in their natural habitat to ensure the preservation of their gene pools.*

## **1.0 The King George IV Ecological Reserve**

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### **1.1 INTRODUCTION**

The King George IV delta is a part of the Lloyds/Exploits river system, the largest river system on the island of Newfoundland. These two rivers, the Lloyd's and the Exploits, and their main tributary, the Victoria River, drain a major portion of the southwest corner of the Island. The proposed King George IV Ecological Reserve (Figure 1) encompasses one of the largest undisturbed delta sites in the Province. It supports a rich and diverse wetland plant community, which in turn provides for a great diversity of fauna. This plan documents the history of preservation efforts for the site and provides an introduction into the fascinating natural history of the area. Based on these features the management policies for the King George IV Ecological Reserve are described.

### **1.2 HISTORY**

The site was established as a provisional reserve in 1984. The considerable delay in granting full reserve status resulted from several land use conflicts, including land, timber, water and mineral rights. In late 1995, upon the request of the Parks and Natural Areas Division, Abitibi- Price Inc. generously donated to the Province, in the absence of inducement or consideration, the lands which the Reserve occupies.

The resolution of the mineral rights issue was successfully concluded through the involvement of the Nature Conservancy of Canada (NCC). The NCC negotiated a settlement with Noranda Minerals Inc., whereby Noranda has agreed to relinquish its mineral rights. Abitibi-Price Inc., in recognition of their corporate stewardship role also agreed to relinquish their timber rights within the King George IV site. At that time, Abitibi-Price Inc. was not prepared to relinquish their water rights. However, the company stated that it has no intention of using the water above the reserve for power generation, or other projects. Therefore, it does not oppose the establishment of the reserve. The potential for any future land use conflicts has been greatly reduced by addressing these issues prior to establishment of the reserve.

### **1.3 OBJECTIVES**

The following objectives, in order of priority, outline the reasons why King George IV Ecological Reserve is established, and the fundamental basis for which management decisions are made:

1. To preserve and maintain one of the Island's largest undisturbed delta systems, which serves as a refuge for a diversity of wildlife.
2. To preserve and maintain an important wetland breeding site for waterfowl.
3. To preserve and maintain an example of the Central Newfoundland Forest Eco-region in as pristine a state as possible.
4. To foster scientific studies which are permitted to ensure the achievement of the previous three objectives.

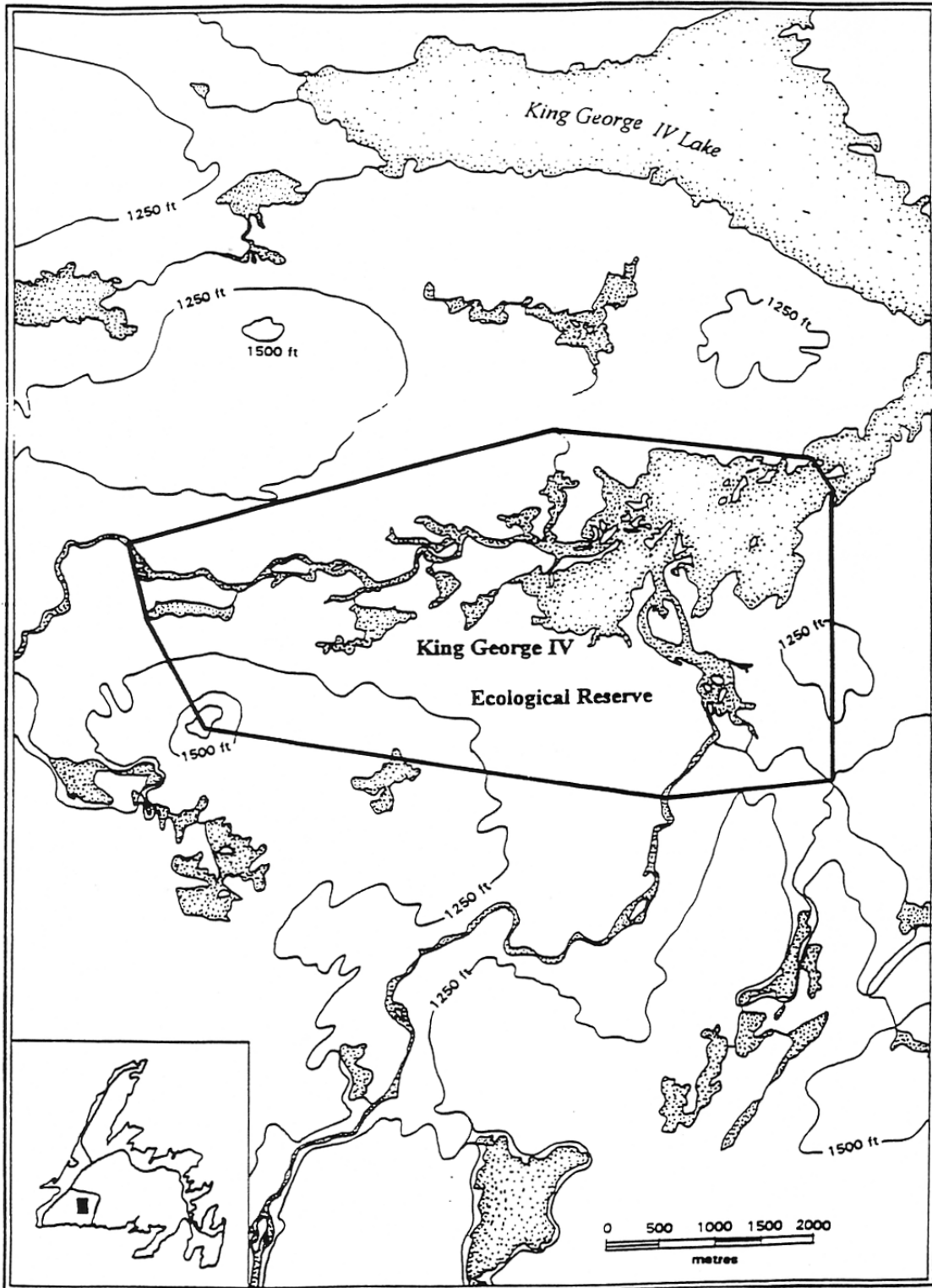


Figure 1. King George IV Lake Ecological Reserve.

## **2.0 Natural Features**

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### **2.1 LOCATION AND SETTING**

The King George IV Lake delta is situated 90 km north of Burgeo, approximately 5 km west of the Burgeo Highway. The delta formed where the upper section of the Lloyd's River and another unnamed stream enter the southwest corner of King George IV Lake. The segment of the Lloyd's River that enters the Reserve flows through a fairly narrow steep-sided valley of the Long Range Mountain Range. Within the reserve the terrain reaches an elevation of 490 meters. The reserve encompasses an area of approximately 19 km<sup>2</sup>.

The King George IV site falls within the Central Newfoundland Forest Eco-region (Damman, 1983). The Lake is surrounded by wooded lands, a considerable portion of which is productive forest. The area of greatest ecological significance is the delta, with its deposit of nutrient rich alluvial soils and series of island gravel and sand bars. It is one of the largest and most diverse undisturbed delta sites on the Island (Wells and Hirvonen 1988). The alluvial soils support a rich floral community, which in turn attracts diverse fauna.

### **2.2 CLIMATE**

The climate of the Central Newfoundland Forest Eco-region is generally the most continental of any part of the Island. The area experiences the highest summer temperatures and the lowest winter temperatures for the Island. The length of the vegetative season is 140-160 days. Precipitation and snowfall are about average for the island and the winter snow cover is reliable. Warm summers and high evapo-transpiration loss result in low soil moisture values in this area. The northern section of the eco-region is very dry and except for the Reserve area, it is one of the driest parts of the Island.

There is no climatological station within close proximity to the King George IV Reserve, therefore, detailed site-specific climatological data is not available. One must assume that the local climatological conditions would differ from the general climate of the eco-region, since the site is located within a deeply incised, wooded river valley and the local climate is affected by the surrounding topography and the lake.

### **2.3 GEOLOGY**

Geologically, the Island of Newfoundland has undergone major tectonic changes associated with an opening and closing cycle of late Precambrian to Mid-Paleozoic ocean. An ancient ocean known as the proto-Atlantic or Iapetus Ocean was located west of the present day Atlantic. As this ocean closed and the Atlantic opened, major deformation in the form of subduction, obduction, faulting, volcanic and plutonic activity occurred. Structurally the Island can be separated into four main structural zones: Humber, Dunnage, Gander and Avalon. The reserve site forms part of the Dunnage Zone. The rocks of the Dunnage zone formed at the western oceanic margin of the Iapetus Ocean and today the geology of the Dunnage Zone includes evidence of ancient oceanic crust. Typically, the Dunnage Zone contains Cambrian to Ordovician ophiolitic mafic-ultramafic rocks, pillow lavas and related intrusive rocks indicative of volcanic activity occurring in a marine environment. In addition, Cambrian to Silurian sedimentary rocks, island arc volcanic and volcanoclastics are present throughout the Zone.

The Reserve site possesses a number of the rock units that typify the Dunnage Zone. Rocks of the Middle Ordovician Lloyd's River Intrusive Suite underlie most of the Reserve. These rocks grade from gabbro and tonalite in the west, to coarse grained granite and granite diorite to the east. In the southeastern corner of the Reserve, units belonging to the early to mid-Devonian Windsor Point Group and early Ordovician King George IV Lake Ophiolite Complex occur. The rocks of the Windsor Point Group that occur within the reserve include: feldspathic litharenite and fossiliferous black siltstone and conglomerate. Mafic pillow lavas, pillow breccias, intercalated mafic tuffs, and red and green chert belonging to the King George IV Ophiolite Complex occur along the entire eastern boundary of the Reserve.

### **2.4 FLORA**

The Reserve falls within the the Portage Pond subregion of the southwestern corner of the Central Newfoundland Forest Ecoregion, (Damman 1983, Meades 1990). Forests characterize the Central Newfoundland Ecoregion, but they are mostly absent from the subregion which is dominated by barren land due to its much higher elevation. The forest which covers much of the Reserve is mainly comprised of three different forest types which include balsam fir and black spruce associations. King George IV Ecological Reserve is not characterized by vegetation typical of this area of Newfoundland, (Bouchard 1991, Bouchard et. al. 1991). The water level of



King George IV Lake is 345 metres above sea level with barrens occurring in the northern and western portions of the Reserve. Nonetheless, the valley serves to protect a small previously uncut forest.

The forested landscape of the Reserve is interspersed by a number of peat lands. These peatland types range from basin bogs to shore fens that provide valuable habitat for waterfowl and other species (peatland types from Wells and Hirvonen 1988, Wells and Pollett 1983). The dominant wetlands are the freshwater marshes which form a number of permanent and semi-permanent islands. This type of wetland is very rare in Newfoundland and even absent from many parts of the island. These habitats illustrate the biological productivity of the area which annually support new growth of lush vegetation. The excellent summary of these habitats, by Goudie, is provided in Appendix 1.

## **2.5 FAUNA**

The King George IV delta has been described as an “oasis” for a variety of wildlife. The site is provincially significant for its waterfowl, both large and small mammals and other wildlife species.. Throughout any given year, waterfowl use different habitats for the nesting, brooding and staging parts of their annual cycles (Gilliland, pers. comm.). The Reserve is one of the most important waterfowl sites on the Island for several reasons. Canada Geese, Black Ducks, Green-winged Teal, American Goldeneye, and Ring-necked Ducks all build nests among the drier sections of the marsh in the spring. As many as eighty (80) Canada Geese have been observed within the delta during the summer. After the chicks fledge, they brood with the parents among the wetter, more open areas of the delta. During late summer and early fall, the delta serves as a staging area for the waterfowl as they prepare to migrate south. Any birds moulting at this time are unable to fly and are basically defenseless against attack by predators. These periods in the annual cycle of waterfowl are important as the birds must store enough energy to survive their arduous migration south (Goudie 1987).

Habitats in the Reserve are also extensively used throughout the year by large mammals. The area is utilized by the La Poile Caribou Herd, which is comprised of about 9,000 animals (Tucker, pers. comm.). A large number of males may be found in the area during the summer and stay until the rutting season in the fall. Males and females may enter the valley in the winter if the season is particularly harsh and food is unavailable on the barrens. They find shelter in the

forest and feed on the readily available tree lichens. The area is also a favorite site for moose which may be found here throughout the year. The Reserve is large enough to support small populations of other mammals such as the muskrat and the snowshoe hare (Dodds 1983). In especially severe winter weather Arctic hare find refuge in the river valley.

## **2.6 SUMMARY**

King George IV Ecological Reserve serves as an oasis for wildlife in a high altitude, sub-arctic environment. It supports a relatively high breeding population of waterfowl and also supports migrating and staging waterfowl. Local populations of large mammals use the area frequently. The potential of the Reserve to support other wildlife species is very high. These species are supported by a diverse spectrum of plant communities, ranging from barren and forest communities, to diverse freshwater marsh communities. In fact, the habitat provided by the freshwater marsh is rare in the Province.

### **3.0 Management Policies**

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The management issues concerning King George IV Ecological Reserve arise from activities which threaten the integrity of the delta and the wildlife which depend upon it. This plan outlines these issues and the appropriate policies and regulations to ensure that the objectives of the Reserve are met and maintained.

The King George IV delta has been given Ecological Reserve status primarily because it is provincially important as an example of an undisturbed delta system that contains a rich floral community providing an important refuge for a variety of wildlife. To reflect this significance, the management policies give priority to the protection of the delta system and its flora and fauna, in as natural a state as possible, congruent in purpose to the preservation and protection objectives of the *Wilderness and Ecological Reserves Act*.

#### **3.1 MANAGEMENT AND ADMINISTRATION**

Parks and Natural Areas Division is responsible for the management and administration of the Reserve under the *Wilderness and Ecological Reserves Act*.

- Action:
1. Parks and Natural Areas staff, Provincial Wildlife Conservation Officers, Canadian Wildlife Service Enforcement Co-ordinators and the Royal Canadian Mounted Police have the authority to enforce the King George IV Ecological Reserve Regulations. The help of these agencies in the enforcement of these regulations will be actively solicited.
  2. Parks and Natural Areas Division will be responsible for controlling visitor access to the reserve and ensuring that visitors conduct themselves in a manner that conforms with the Botanical Ecological Reserve Regulations. This responsibility will be carried out through patrols of the Reserve and public education.

### **3.1.1 Hunting and Trapping**

The King George IV Ecological Reserve is an important refuge for wildlife. Hunting and trapping are incompatible with the preservation objective of the Reserve.

- Action:
1. In accordance with the **Wilderness and Ecological Reserves Act** hunting and trapping are prohibited within the Reserve.
  2. Firearms must be wrapped and cased while in the Reserve.

### **3.1.2 Forest Harvesting**

The Reserve contains a rich and diverse floral community. Forest harvesting, both commercial and domestic, is incompatible with preserving the plant community of the Reserve in as natural a state as possible.

- Action:
1. In accordance with the **Wilderness and Ecological Reserves Act** the cutting, removal or destruction of any plant species is prohibited.

### **3.1.3 Recreational Activity**

The King George IV Ecological reserve can sustain a certain level of low impact (low intensity) recreational activity without causing significant disturbance to the wildlife or the plant communities within the Reserve.

- Action:
1. Hiking is permitted throughout the entire Reserve, except through areas containing waterfowl during the breeding season.
  2. Visitors are required to carry garbage out of the Reserve.
  3. Open fires are prohibited within the Reserve.
  4. Canoeing is permitted within the Reserve.

### **3.1.4 Aircraft Activity**

Aircraft travel may cause undue stress on breeding birds and other wildlife.

- Action:
1. Aircraft flying over the Reserve, must, if safety permits, maintain an altitude of at least 300 meters.
  2. No aircraft is permitted to take off or land in the Reserve between April 1 and November 31.

### **3.1.5 Domestic Animals**

Domestic animals can be extremely destructive by disturbing vegetation or by chasing birds, digging up nests and destroying eggs or chicks.

- Action:
1. Domestic animals are excluded from the Reserve.

### **3.1.6 Research and Monitoring**

One of the objectives of the Reserve is to foster scientific studies which are required to ensure the achievement of the following objectives:

1. To preserve and maintain one of the province's largest and most undisturbed delta systems, which serves as a refuge for a diversity of wildlife.
2. To preserve and maintain an important wetland breeding site for waterfowl.
3. To preserve and maintain an example of the Central Newfoundland Forest Ecoregion in as pristine a state as possible.

- Action:
1. Research will be authorized by Research Permits from Parks and Natural Areas Division. The research of the highest priority will be that which addresses management issues, with an emphasis on understanding and preserving the delta, its flora and wildlife.

2. Research which requires the destruction or disturbance of the plant or fauna will not be permitted, except in special circumstances where the desired information could not otherwise be obtained.

### **3.1.7 Mineral Exploration and Development**

Activities associated with mineral exploration and development may be destructive to the delta's ecosystem. In 1994 the Nature Conservancy of Canada negotiated the purchase of Noranda's existing mineral rights within the Reserve.

- Action:
1. Congruent with the Wilderness and Ecological Reserves Act, mineral exploration and mining are prohibited in the Reserve.

### **3.1.8 Information and Education:**

The Reserve provides an opportunity to understand and appreciate the complexity of a delta ecosystem.

- Action:
1. Parks and Natural Areas Division will provide fact sheets which describe the site, its significance, and the reasons for protecting it.
  2. The Division will provide schools in the area with copies of this information.

### **3.1.9 Ecological Integrity**

It is essential that the ecological integrity of the King George IV Ecological Reserve is protected. This necessitates the prohibition of a number of activities that would be detrimental to natural ecological processes.

- Action:
1. In accordance with the Wilderness and Ecological Reserves Act, the use of motorized vehicles or equipment is prohibited in the Reserve.
  2. Except for scientific purposes covered by permits, there shall be no disturbance or damage to, or removal of any plant, animal or natural objects from the Reserve.

3. Ecosystems within the Reserve shall be allowed to follow their present succession unless deliberate management is required for the preservation of an indigenous plant or animal species
4. Dumping, depositing or the emission of any substance is prohibited in the Reserve.

## **APPENDIX I - Selected References**

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## ***APPENDIX II - Habitat Description***

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In 1977 Goudie undertook a recreational and ecological assessment of the King George IV Lake area including the proposed reserve area. His report provides the following description of the plant communities which occur within the Reserve. This is a direct excerpt.

*Vegetation is predominantly pristine forests of balsam fir, white birch and spruce. Areas of rich fens, bogs and alluvial grass meadows are common, typified by species of a temperate climate. There are five basic vegetative/ecological zones:*

- *backshore zone*
- *floodplain zone*
- *subaquatic zone*
- *aquatic zone*
- *floating mat zone*

***The backshore zone:*** *constitutes the area of dominant forest cover interspersed with various bogs, fens and water bodies. This zone represents a fairly stable ecotone. Most of the Central Forest Ecoregion has been subjected to the widespread fires of the period from 1958-1974, resulting in the development of fire stands of Picea mariana, and to a lesser extent Betula papyrifera especially in the northern and eastern parts of the ecoregion. Populus tremuloides stands of fire origin occur locally. The southerly limit of the Ecoregion, including the forests of the Reserve, have not been subjected to such severe forest fires. Hence, fire origin black spruce forests are not typical of the King George IV Lake area. Instead the area exhibits edaphic climax balsam fir forest with white birch and black spruce predominating in localized areas. Additional to the major forest cover, areas of impeded drainage show characteristic development of bogs and fens. The vegetation in those cases are more typical of the floodplane zone.*

***The floodplain zone:*** *is the most dynamic of the ecozones present. Here, a constant cycle of deposition and erosion leads to the formation and subsequent destruction of alluvial islands. The rich sediment deposited as a result of flooding results in the development of a diverse assemblage of grasses, sedges, forbs and shrubs. Consequently this ecozone offers productive wildlife habitat.*

*The vegetation of these alluvial islands can vary from alluvial grass meadows or small shrub meadows to mature balsam fir forests. The tremendous productivity of the seral vegetation stages, species variation and composition, coupled with the relatively large area of the zone (6.4 sq. km) makes this area unique for the Island. Such deltas occur in other areas of the province but are not of a comparable size. Furthermore very few of these area remain in pristine condition.*

***The subaquatic zone:*** *consists of species capable of inhabiting both land and water.*

*Variations in water levels due to floods and spring run-off dictate that only species adapted to an amphibious lifestyle can survive in this zone. Species such as Sanquisorba, Carex, Juncus, etc are present and provide indications of water flush and flood areas. The subaquatic zone is restricted to the margins of ponds and streams and to a certain degree to areas of frequent flooding by melt water or rain where standing water may occur periodically. This zone will at times invade open water which is sufficiently shallow and turbulent free to support such vegetation. Such areas are common in the smooth flat water meander channels of the King George IV Lake. This zone contains the most productive waterfowl habitat.*

**The floating mat zone:** *is a significant zone in the dynamic succession of standing water to bog/fen and eventual forest cover. In areas where moist soil conditions, light and oxygen conditions are favorable Sphagnum carpets may expand over the surface of the water forming a mat of moss and peat which increases in consistency with time. Often the edge of the carpet anchored to the shoreline can support the weight of a person. Over a period of time peat may accumulate to fill in certain parts of the standing water leading to the establishment of fen conditions. Once established the floating mat is little affected by changing water levels and eventually near the shoreline the mat may rise above the water table and shrubs such as Alnus crispa, Chamaedaphne calyculata and Myrica gale may invade the site. The wildlife productivity of the floating mat zone is low, however, it becomes important as fodder for ungulates when water tolerant shrubs establish themselves. At this stage it's better classified within the floodplain zone.*

**The aquatic zone:** *is extensive in the King George IV Lake delta. Here communities of floating and submerged aquatic plants form various stages through the year round changes of the water table. Active sedimentation and slow water movement provide a rich habitat with diverse aquatic species. Most aquatic species root in the bottom from which most of the nutrients are derived and maximum cover occurs in the shallower more productive waters.*

*The aquatic zone represents a very important component in the habitat of moose and waterfowl. Many species such as Nuphra spp., Potamogeton gramineus, Juncus spp. etc; act as preferred food species for moose and as a component food species for waterfowl. Productive waterfowl habitat is extremely rare on the Island and due to the relatively poor soils in Newfoundland, most water bodies do not support productive vegetation areas of high waterfowl potential. Areas of delta formation and outwash plains are practically the only areas which can offer the rich soil and shallow slow water necessary to support productive waterfowl habitat.*

## ***APPENDIX III - Reserve Order and Regulations***

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*King George IV Lake Provisional Ecological Reserve Order*  
under the  
*Wilderness and Ecological Reserves Act*

(O.C. 96-190)

Under the authority of subsection 14(1) of the *Wilderness and Ecological Reserves Act* and the *Subordinate Legislation Revision and Consolidation Act*, the Lieutenant-Governor in Council makes the following Order.

### **ORDER**

*Analysis*

Section:

- I. Short title
2. Area included

Section:

3. Repeal
- Schedule

- |               |  |
|---------------|--|
| Short title   | 1. This Order may be cited as the <i>King George IV Lake Provisional Ecological Reserve Order</i> .                      |
| Area included | 2. The area included in the King George IV Lake Provisional Ecological Reserve is as set out in the Schedule.            |
| Repeal        | 3. The Order re the Provisional Ecological Reserve at King George IV Lake. Newfoundland Regulation 16 1/84. is repealed. |

## Schedule

All that area of the province bounded by a line commencing at the tip of a small peninsula on the shore of King George IV Lake whose approximate co-ordinates are 48° 10' 45" north latitude and 57° 52" west longitude and then following a southerly direction approximately 2.850 metres to the junction of two brooks whose approximate co-ordinates are 48° 09' 15" west latitude and 57° 52' west longitude:

Then following a westerly direction approximately 1,625 metres to a point where a small brook joins the major river which flows into King George IV Lake. the approximate co-ordinates being 48° 09' 09". north latitude and 57° 53' 15" west longitude;

Then following a general northwesterly direction approximately 4.400 metres to the summit of a hill whose approximate co-ordinates are 48° 09' 35" north latitude and 57° 57' 15" west longitude;

Then following on in a general northerly direction a distance of approximately 800 metres to a point on the south shore of the Lloyd's River the approximate co-ordinates being 48° 10' 32" north latitude and 57° 57' 23" west longitude:

Then following a general northeasterly direction a distance of approximately 4.225 metres to the eastern extremity of a small pond having approximate co-ordinates 48° 11' 07" north latitude and 57° 54' 07" west longitude;

Then following a general easterly direction approximately 2.500 metres to the eastern extremity of a small peninsula on the shore of King George IV Lake. the approximate co-ordinates being 48° 10' 54" north latitude and 57° 52' 09" west longitude:

Then following a southeasterly direction across King George IV Lake to the point of commencement.

161/84

*Botanical Ecological Reserve Regulations*  
under the  
*Wilderness and Ecological Reserves Act*  
(O.C. 97-247)

*(Filed May 21, 1997)*

Under the authority of sections 25 and 29 of the *Wilderness and Ecological Reserves Act*, the Lieutenant-Governor in Council makes the following regulations.

Dated at St. John's, May 13, 1997.

John Cummings  
Deputy Clerk of the Executive Council

**REGULATIONS**

*Analysis*

Section:

1. Short title
2. Definitions
3. Restrictions
4. Exception
5. Research in reserve

Section:

6. Exception for research
  7. Hunting and fishing
  8. Permit required
  9. Application of regulations
- Schedule

- Short title 1. These regulations may be cited as the *Botanical Ecological Reserve Regulations*.
- Definitions 2. In these regulations
- (a) “Act” means the *Wilderness and Ecological Reserves Act*;
  - (b) “managing agency” means the Parks and Natural Areas Division of the Department of Tourism, Culture and Recreation;
  - (c) “management plan” means the management plan for a declared botanical ecological reserve on file with the managing agency;
  - (d) “permit” means a permit issued and valid under these regulations;
  - (e) “personal water craft” includes jet-skis, sea-doods, wave-runners and the like but excludes ordinary motorized boats, kayaks and canoes;
  - (f) “reserve” means a botanical ecological reserve set aside under the Act and listed in the Schedule;
  - (g) “structure” means a man-made object intended to be permanent or semi-permanent in nature and includes, but is not limited to, buildings, houses, cottages, cabins, wharves, docks, boathouses, slipways, trailers, mobile homes, tents, tent platforms, and recreational vehicles used for any purpose but does not include semi-permanent blinds and signs erected under the authority of the management plan; and
  - (h) “wildlife” means an animal or plant.
- Restrictions 3. Within a reserve, a person shall not
- (a) remove or dislocate a botanical specimen except for scientific study and this only when the researcher is the holder of a valid permit;
  - (b) pollute or obstruct a stream or other body of water or dispose of any garbage;
  - (c) build or erect or cause to have built or erected any structure;
  - (d) destroy, damage, remove, disturb, or handle the home, den, or nest of wildlife;
  - (e) destroy, damage, remove, disturb, or handle an egg of any wild bird;

- (f) destroy, damage and remove any wildlife, fossil or other natural object;
- (g) destroy, damage, or remove a sign or other government property;
- (h) remove sand, stone, or gravel;
- (i) prospect, claim stake, mine or quarry;
- (j) use, operate or be in possession of a motor car, motor truck, four-wheel drive vehicle, all-terrain vehicle, snowmobile, personal water craft or other motorized conveyance;
- (k) land an aircraft;
- (l) operate a commercial establishment or commercial enterprise within the reserve, except guiding, touring and outfitting;
- (m) display, post or broadcast an advertisement;
- (n) herd or graze animals within a reserve;
- (o) light a fire; and
- (p) camp.

- Exception      4. A person engaged in the administration or management of a reserve in the normal course of his or her duties is exempt from paragraphs 3(a), (d), (e), (1), (g), (k) and (m).
  
- Research in re-      5. Scientific research within a reserve shall require a permit and  
serve                      those permits may be obtained from the managing agency on  
                                 submission of a written request outlining the research project. and  
                                 subject to the terms and conditions that the managing agency may  
                                 determine.

- |                               |   |
|-------------------------------|---|
| Exception for re-<br>search   | 6. A person engaged in scientific study which is approved by the managing agency and for which a permit has been issued under section 5 may be exempted from paragraphs 3(a),(c), (d), (e) and (f).   |
| Hunting and fish-<br>ing      | 7. All hunting and fishing within the West Brook and Watts Point Reserves is allowed in accordance with permits or licenses issued under the <i>Wildlife Act</i> , the <i>Migratory Birds Convention Act</i> (Canada) or the <i>Fisheries Act</i> (Canada). |
| Permit required               | 8. (1) A person engaged in a touring, guiding or outfitting enterprise shall obtain a permit for the enterprise from the managing agency.<br><br>(2) Applications for a permit shall provide a full description of the enterprise planned.                  |
| Application of<br>regulations | 9. These regulations shall apply to the botanical ecological reserves listed in the Schedule, except to the extent that they have been modified by the Order declaring a given botanical ecological reserve in effect.                                      |

### **Schedule**

1. Hawke Hill Ecological Reserve.
2. Watt's Point Ecological Reserve.
3. West Brook Ecological Reserve.
4. King George IV Ecological Reserve.