

LEGISLATIVE ASSEMBLY OF THE  
NORTHWEST TERRITORIES  
6<sup>TH</sup> COUNCIL, 38<sup>TH</sup> SESSION

SESSIONAL PAPER NO. 5-38

JANUARY 24, 1969

PROPOSED NATIONAL PARK  
GREAT SLAVE LAKE

JANUARY 1969



NATIONAL PARKS SERVICE — PLANNING  
DEPARTMENT OF INDIAN AFFAIRS AND  
NORTHERN DEVELOPMENT

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*Department of Indian Affairs and  
Northern Development,  
National and Historic Parks Branch,  
National Parks Service - Planning.*

## INTRODUCTION

There are nineteen national parks in Canada. Each is distinctive. In the same manner, the proposed "Great Slave Lake National Park" has its distinctive features.

Dr. Durward Allen, noted conservationist, in a few words summarizes the character and purpose of the proposed park:

"The most perishable amenities of the world are its open spaces and quietudes, its greenery, pure waters, natural rivers and choice scenery, its dwindling modicum of true wilderness."

Dr. Allen's words capture the essence of the proposal.

The quality of the area as a national park has been recognized for many years. Formal studies commenced in 1962, and further efforts aimed at defining a suitable boundary were carried out in 1968.

The objectives of the boundary study were to identify park values as well as other resource values, to determine the essence of the park, while at the same time recognizing other potential land uses. The boundary has been drawn to attain this goal.

In addition, the proposed park would be established on the basis of a "Core" plus "Reserve" concept. This concept entails the establishment of a

National Park Core of 1,100 square miles. This area would be brought under the full protection of the National Parks Act. In addition, a reserve area in which the mineral potential is not fully known would be added to the park after a further period of exploration.

"Great Slave Lake National Park" would be among the outstanding parks in North America. No where else is the treeline-tundra transition represented in such a dramatic manner. The scenic splendour is striking; green waters contrasting with red cliffs, waterfalls thundering into the gorges of the Lockhart River.

#### PURPOSE

The purposes of the "Great Slave Lake National Park" have, in a preliminary manner, been identified as follows:

1. to preserve a representative yet outstanding example of the scenic, geological and biological features in the East Arm of Great Slave Lake;
2. to preserve an outstanding section of the Lockhart River, including its spectacular falls and rapids, as well as the historical ruins of Old Fort Reliance and also Pike's Portage Route;
3. to preserve one of the best known areas of transition from boreal forest to barrens - that area lying about Artillery Lake;

PURPOSE (CONT'D)

4. finally, to preserve a representative group of eskers which typify the barrens to the east of Great Slave Lake.

The theme would be "Edge of the Barrens", emphasizing the association of barren grounds, drainage, geology and biology with one of the major lakes within the forested area of Canada. This theme would illustrate the many contrasts to be found along a transition zone such as this, and would, at the same time, capture many of the separate characteristics of each.

HIGHLIGHTS

Physiography and Geology

1. The East Arm of Great Slave Lake lies within the major physiographic region of the Canadian Shield as yet unrepresented in any other National Park.
2. The East Arm of Great Slave Lake provides an excellent sample of the characteristic, structural and geological conditions of the Canadian Shield. From the standpoint of natural history and scenic beauty, it meets the requirements of the unique and representative in superior fashion.

Drainage

The hydrographic patterns provide a superb example of the youthful disorganized drainage that characterizes the amphibian landscape of the Shield. Four falls, including Hanbury, Anderson, Perry and Tyrell, are present on the Lockhart River.

## HIGHLIGHTS (CONT'D)

### Vegetation

The East Arm and Artillery Lake contain excellent samples of the Tundra and the Taiga vegetation. While the area in general is transitional between these two regions, the line of demarcation between them is sharp.

### Fish and Wildlife

1. The East Arm is transitional between the Arctic and Hudsonian life zones with the Arctic Zone poorly represented.
2. Angling conditions are excellent in the East Arm.

### Climate

1. The East Arm has a Boreal interior climate which is not represented in any other existing National Park.
2. Generally, the climate is adequate for a park and outdoor recreation. Summer temperatures are cool and the season short. There are some limitations to outdoor recreation, particularly swimming, due to low water temperatures.
3. Rainfall is low and combined with the long summer days and satisfactory sun and cloud conditions, the capability for outdoor recreation activity is good.

### History

The construction of Fort Reliance (1833) on the East Arm by Captain Sir George Back is the most important incident in the period of scientific exploration.

### Population and Settlement

Park development will cause minimal disturbance to established land use patterns in the Artillery Lake area and land alienation would not present major problems.

HIGHLIGHTS (CONT'D)

Transportation

Access to the East Arm is relatively difficult at this time. However, the area is reasonably well located with respect to the Mackenzie River corridor, and a connection with the Mackenzie-Yellowknife Highway appears to be a feasible proposition in the future.

Economic Considerations

The establishment of a park on the East Arm could broaden the base of income, employment and investment opportunities within the area.

THE CORE AND NATIONAL PARK RESERVE CONCEPT

Under this concept, a core area is first established with full national park status and a contiguous area is officially and legally designated as a national park reserve. No specific size is laid down for the core area, but it must be of such size as to contain the necessary physical attributes to make it a viable national park in itself since it may be many years before the reserve area attains national park status and is added to the core.

The contiguous national park reserve area is the area which really should form part of the national park in the first instance, but which for various reasons, normally, the possibility of minerals, is left as a reserve area for a number of years. During this period - ten years is suggested for the Great Slave Lake area - mineral exploration is permitted. At the end of this period, areas which have not been proven to the Department's satisfaction to have economically exploitable



THE CORE AND NATIONAL PARK RESERVE CONCEPT (CONT'D)

mineral resources will be added to the core area and given full national park status. Areas which have been proven to the satisfaction of the Department to have economically exploitable mineral resources will continue as national park reserve, but exploitation will be permitted with controls being applied to minimize the damage to the natural scene. When exploitation of the area comes to an end, the exploiter will be required to return the area to its natural condition in so far as is reasonably possible as determined by the Department. At this point in time, the area which has been exploited will then also be added to the core and receive full national park status.

THE BOUNDARY

The boundaries for the "Great Slave Lake National Park" are based on the "Core" plus "Reserve" principle.

Because of the mineral potential which exists in the Meridian Lake area, it was necessary to divide the core into two units so that the principle features of the park could be incorporated in the core without including a known area of mineral potential

The core and reserve areas combined would create a 4,300 square mile National Park that would fill an important gap in the landscapes and natural features being sought to complete the National Parks System of

THE BOUNDARY (CONT'D)

Canada. The size of this park is considered to be the minimum needed to reflect the true scale and magnitude of the features and landscapes involved.

Core Area I

This portion of the National Park Core closely resembles, but differs slightly from the reserve placed on this area (for public recreation) by the Government of the Northwest Territories, dated June 14, 1968. It contains approximately 600 square miles of land and water necessary to adequately protect:

1. the outstanding features of the Lockhart River: falls, canyons and rapids;
2. the transition from forests to tundra which is so dramatically illustrated on the shores of Artillery Lake;
3. Pike's Portage Route, the traditional and historically significant portage which bypasses the Lockhart River;
4. the historic ruins of Fort Reliance.

Core Area II

The land and water area encompassed by this core area (measures slightly less than 500 square miles) would provide the necessary protection for the outstanding scenic, geological and biological aspects of the Pethei, Kahochella and Douglas Peninsulas plus Redcliff and associated islands.

Reserve Area

Land requirements for this National Park would be completed through the addition of the lands and waters within the boundaries of the National Park Reserve Area. This 3,200 square-mile reserve would provide eventual protection for the drainage of the Hoarfrost River; a series of eskers

typical of the barrens area; a complete cross-section of the types of drainage which occur in this region of Canada; a portion of the McDonald Fault which amply illustrates the above-ground aspect of the Fault; and the balance of Artillery Lake as it extends out into the barrens.

A P P E N D I C E S

APPENDIX A - RESOURCES

Park Resources

The forested basin of the East Arm, Great Slave Lake and the barrens to the east of the East Arm, together have a number of features which are of interest to the National and Historic Parks Branch; and to include a representative cross-section of these features within this Park is not only desirable but almost a prerequisite to an acceptable "edge of the barrens" National Park.

The Peninsulas

The Pethei, Kahochella and Douglas Peninsulas, which protrude out into the East Arm of Great Slave Lake, are aesthetically, floristically, and geologically interesting, particularly so in this region of the North where vertical relief is normally measured in tens of feet rather than in hundreds of feet. The spectacular sheer rock walls interspersed with stretches of pillared rocks, dikes, sills and extensive talus slopes, characterize the north faces of these peninsulas, whereas the southern faces dip gently under water and are characterized by smoothly eroded surfaces, pockets of sandy gravel, and stretches of relatively low shoreline and shallow offshores.

These peninsulas are dotted with a number of small lakes which lie at much higher elevations than Great Slave Lake, and should prove to be ecologically and aesthetically significant, particularly in light of their isolated location. One such lake was noted to drain underground, feeding a small waterfall through (not over) a sheer rock face some distance to the north and below said lake. Features such as this are first-class and are a desirable asset to a National Park.

### The Islands

Islands lying immediately offshore would, of course, be included with these peninsulas to provide additional contrast and to control development in the near or distant future.

In addition, Redcliff Island (and the smaller islands directly associated with it) should also be included within the park due to its spectacular geology. Its high cliffs retain their sheerness to a considerable depth below the water surface and the relatively small size of the island (approximately 20 square miles) serves to emphasize their height and abruptness.

### The Fault

The McDonald Fault represents a striking example of a break in continuity of rock strata which extends along a fracture plane from the Slave to the Thelon River, a distance of approximately 350 miles.

It constitutes an exceptionally fine landmark in the vicinity of the East Arm, what with its almost straight-line wall of rock traversing the south-eastern shore of Great Slave Lake, sometimes to heights of 700-800 feet. Eastward of Meridian Lake, the Fault disappears below the surface and is expressed as a trough made up of a series of connected small lakes and streams, the combination of which is now known as Pike's Portage Route, a route of historical interest.

### The Rivers

The Lockhart River, i.e., that portion draining Artillery Lake into Great Slave Lake, is a tremendously scenic and fast-flowing river of crystal-clear water which, by means of its thundering waterfalls and

boiling rapids, injects a dynamic element into what might otherwise be considered a somewhat desolate or foreboding area of Canada. The river drops somewhat less than 700 feet in its 20-mile descent from Artillery Lake to the East Arm, and the many whitened caribou skeletons to be found along its banks attest to the savage strength of its swiftly moving waters. The respect which wilderness travellers have for this river is best illustrated by their use of Pike's Portage Route.

In contrast to the Lockhart, the Hoarfrost River is perhaps most representative of the many small streams draining watersheds into the north shore of the East Arm. Typically, these streams connect with the number of small lakes above the rim of the East Arm, draining them through a series of troughs, rapids and/or falls in a manner which frequently precludes any form of water travel for considerable distances, notably in the last few miles of descent to the East Arm. Sandy gravel deposits frequently signify the outlets of these streams and normally indicate a landing site for boats or aircraft.

#### The Lakes

Great Slavo Lake is the fourth largest freshwater lake in Canada. The East Arm of this lake, by virtue of its lofty peninsulas, its many islands, and its crystal clear waters, is by far the most scenic portion of this lake. The break-up to freeze-up period here, brief as it is elsewhere at this latitude, runs somewhat later than the inland lakes, but this does not deter the numbers of sport fisherman who annually journey to the sport fishery lodges along the north shore of the Arm in search of trophy lake trout and grayling.

Artillery Lake, on the other hand, is more remote and is visited only infrequently.

### The Lakes (Cont'd)

It stretches north-westward from the Lockhart River for a distance of approximately 50 miles, and occupies an area of approximately 210 square miles. Of outstanding significance here is the complete transition from wooded shorelines near its outlet to barren grounds at its inlet. According to a number of early and more recent travellers, the most dramatic impact of the treeline phenomenon is attained in the Artillery Lake area. Sandy gravel beaches, the product of thousands of years of exposure to the elements, occupy a goodly portion of the shoreline and are frequently dimpled with the footprints of passing caribou, wolves, fox and other small resident mammals and birds. Indians who hunt near Artillery Lake generally restrict their hunting to the south-west shore (Pike's Portage Route lies nearby).

The annual migration of barren ground caribou can usually be observed in the vicinity of Artillery Lake. The animals may elect to (a) travel around the east end of the lake, (b) may swim the lake, or (c) may cross the Lockhart River. The timing and extent of barren ground caribou migrations here vary each season, and in recent years is not an event to be depended upon, at least as a source of food.

A huge esker notes the north-eastern extremity of Artillery Lake, and is representative of the many such eskers in the barren grounds.

### The Barrens

The lands which extend outwards from the tree line change gradually from what has been termed forest tundra in the vicinity of Artillery Lake to true tundra towards the Thelon River. This phenomenon, with its attendant changes in environmental conditions, degree of solitude,



The Barrens(Cont'd)

and wildlife and botanical representatives, is of tremendous importance to the National Parks of Canada in that it presents an opportunity to capture this phenomenon in a relatively compact area, an area through which many of the early travellers in this region passed on their excursions out into the barrens. Here the ptarmigan thrive during the warmer months, raising their broods on the rich supply of food which the barrens produce. Here, too, the barren grounds caribou pass on their annual migration to and from the tree line. Wolves can be found here as well, but the barren grounds grizzly, a relatively scarce item on the barrens, may only put in occasional appearances in the area being considered here.

Despite a relatively short growing season, the barrens put forward an impressive display of flowers during the summer months, and in the fall, with the first hint of winter the barrens become one vast array of colour.

Eskers are common on the barrens, and can frequently be used as landmarks in areas which would otherwise have few distinguishable topographic characteristics. Some sand dunes also exist, appearing almost mirage-like on the horizon as they come into view.

Other Considerations

Land Alienation

All lands encompassed by this National Park are Crown owned. Only a few private buildings exist in the vicinity of Fairchild Point; the Department of Transport maintains a weather station here as well. Prospecting claims exist in the vicinity of Meridian Lake (uranium possibilities), on Fairchild Point, and also directly south of Walmsley Lake, and others may by now have been recorded elsewhere within the reserve portions of this National Park. None of the preceding, however, should in any way deter the establishment of this National Park.

Transportation

The East Arm of Great Slave Lake lacks scheduled transportation facilities. Access to the region is by means of chartered aircraft usually based at Yellowknife, 175 air miles distance, Hay River or Fort Smith, all of which are serviced by Pacific Western Airlines on a scheduled basis. Charter services are also available at Edmonton.

The Northern Transportation Company operates a barge service during the navigation season from Waterways, Alberta, down the Mackenzie River system servicing intermediate points. An annual barge shipment to Reliance from Hay River is scheduled in the latter part of the season to supply the Department of Transport and residents. Additional trips are scheduled only when warranted. Water transportation service is becoming less viable due to the increased movement of freight by road and air.

The Mackenzie Highway extends to Yellowknife and continues a short distance north-eastward to include Lake as the Ingraham Trail. Eventual road access to the area appears to be feasible. Hovercraft and charter boat facilities for access to the East Arm are other distinct possibilities in the future.

#### Resource Conflicts

1. Sporting lodges in the East Arm area may lose a degree of exclusiveness through Park development, but it is doubtful if this will be reflected in any actual loss of business. On the other hand, increased public use of this area (arising out of the establishment of a National Park here) can be expected, along with an associated increase in tourist spending from which these lodges should benefit.
2. No big game outfitters operate in the East Arm region.
3. There will be no conflict of interests with forestry for the area does not contain commercial stands of any major significance.
4. There is power potential in the Lockhart River in East Arm. However, it would be difficult to find any area in which there would not be a resource conflict of some kind. In our view the long term aesthetic and economic value of national park status would outweigh any possible hydro-electric power potential.
5. There should be no conflict with commercial fisheries in the East Arm. The area is already zoned and operated on a quota system with Artillery Lake reserved for angling.
6. The East Arm has few known mineralized areas and it has been prospected for some time.

Development Considerations

Developments would be minimal, at least for the first few years following the establishment of this park, and would be limited to items such as Warden facilities, a visitor reception area and overnight facilities, and trails and portages. Wilderness would be a major asset here, thereby reducing the need for any extensive developments.

The lands of the Park would have to be zoned for various types of public use and development to ensure the best use of the resources for park purposes.

Resource management such as control of fires and control of mineral explorations on the reserve areas of the Park will also be necessary to minimize impairment of the landscape and to prevent the loss of any park resource.

APPENDIX B - HISTORICAL BACKGROUND

The only association of note that the East Arm of Great Slave Lake had with early scientific exploration occurred with Captain Back's expedition of 1833-1835 to the Arctic Coast. The expedition was carried out primarily to assist the John Ross Arctic Expedition which was in difficulty in the Boothia Peninsula region.

Back established Fort Reliance at the mouth of the Lockhart River as his winter operational base. From Fort Reliance, he carried out two seasons of exploratory work to the north-east reaching the Great Fish(Back) River in the first season; and, following advice that the Ross Expedition was safe, the second year progressed to Chantry Bay on the Arctic Ocean by way of the Great Fish River.

Fort Reliance was occupied for only two seasons before being abandoned in 1835. Narratives of this expedition by both Captain Back and Lieutenant King have provided excellent accounts of the area and the native population. For a short period after 1855, Fort Reliance served as a very minor trading post. Three ancient chimneys are all that remain to indicate the presence of this early outpost.

Two of the earliest Arctic explorers, Samuel Hearne (1772) and Alexander Mackenzie (1789), reached Great Slave Lake, but well to the west of Fort Reliance. Later G.M. Dawson and J.B. Tyrrell of the Geological Survey of Canada, in the late 1890's and early 1900's, carried out exploratory work in the area. Similarly, Warburton Pike's travels through the region in the late 1880's was largely exploratory in nature.