UNSOLICITED PROPOSAL
TO
WILDLIFE HABITAT CANADA
FOR

LAND ACQUISITION
AT
ROBSON BIGHT
ON
NORTHERN VANCOUVER ISLAND
BRITISH COLUMBIA

Prepared by:

The Nature Trust of British Columbia
October 1, 1987

Supporting Agencies

Ministry of Environment and Parks
Fisheries and Oceans Canada
Sierra Club of Western Canada

"for all of us forever"

The Nature Trust

October 1, 1987

Mr. David Neave
Executive Director
Wildlife Habitat Canada
Suite 301
1704 Carling Avenue
Ottawa, Ontario
K2A 1C7

Dear Sir:

Re: Unsolicited Proposal for Wildlife Habitat Acquisition at Robson Bight on Northern Vancouver Island, British Columbia

The Nature Trust of British Columbia is pleased to submit this unsolicited proposal dealing with wildlife habitat acquisition on northern Vancouver Island. Robson Bight is located approximately 120 km northwest of Campbell River at the mouth of the Tsitika River, a watershed which, until 1979, remained the last unlogged system on Vancouver Island's east coast.

The Tsitika River estuary is on the Pacific Flyway and is of considerable importance to migrating and resident wildfowl. The river itself supports one of the most diverse fisheries resources on Vancouver Island and outstanding flora and fauna resources have been identified in the watershed. In addition, the Robson Bight area is the most significant known habitat for killer whales in the world and on this basis was assessed as a National Site of Canadian Significance by Parks Canada in 1982.

The major threats to the biological productivity of the Tsitika watershed and the serenity of Robson Bight and its associated whale habitat include the impacts of pending forestry developments, the lack of information on killer whale behaviour and the potential harassment problem by unsupervised whale watchers.

In 1982 an Ecological Reserve was created on the foreshore of Robson Bight to protect valuable killer whale habitat. The objective of the enclosed proposal is to acquire 38.06 ha of private land to be combined with the existing 1248 ha reserve and a proposed 515 ha upland portion to be acquired by the Crown. Upon amalgamation, Ecological Reserve No. 11 will total 1801 ha of foreshore and upland to preserve a killer whale core area and its Robson Bight backdrop. Concurrently, six other Ecological Reserves will be created in the watershed to preserve representative habitats.

...../2

The Nature Trust of British Columbia
909 - 100 Park Royal South
West Vancouver, B.C. V7T 1A2

Telephone: (604) 925-1128

The intent of this proposal is to secure sufficient funding to acquire the only private lot in the Tsitika estuary. A fair market value appraisal of the land and timber has been completed for and reviewed by the Ministry of Environment & Parks and the landowner is a willing vendor. Should Wildlife Habitat Canada look favourably upon this proposal, the cost of this $414,100 acquisition would be allocated as follows:

Ministry of Environment & Parks	$207,050
Wildlife Habitat Canada	$103,525
The Nature Trust of British Columbia	$103,525

We feel that this is an acquisition of international significance and the culmination of a great deal of effort to secure representative portions of the Tsitika watershed for future generations.

We thank you, in advance, for reviewing this proposal and eagerly anticipate your response.

Yours sincerely,

Ron Erickson
Executive Director

RE/hnc
Enc.

Table of Contents

List of Figures

List of Appendices

1.0 INTRODUCTION

1.1 GENERAL DESCRIPTION AND PROJECT LOCATION

The purpose of this proposal is to request Wildlife Habitat Canada's participation in the acquisition of 38.06 hectares of estuary, river-front, and forested upland in Robson Bight. The property fronts Johnstone Strait in a remote location on northeastern Vancouver Island between Port Hardy and Campbell River (Figure 1).

1.2 SIGNIFICANCE OF THE ACQUISITION

Robson Bight lies at the mouth of the Tsitika watershed which, until 1979, remained the last unlogged system on Vancouver Island's east coast. In its undeveloped state, the watershed represented a sensitive environment with significant potential for primary (plant) and secondary (animal) productivity studies (Romer, 1973 and Harestad, et al, 1975) as well as for hydrology research (Chatwin, 1985 and Karanka, et al, 1987). In the estuary, kelp and eelgrass beds and a broad array of invertebrate and fish species are also of interest to researchers (Karanka et al, 1985).

The Tsitika River estuary is located in the Pacific Flyway and is of considerable importance to migratory and resident shorebirds and waterfowl (Rennie, 1982). The uplands provide feeding and resting areas while the intertidal habitat, including the eelgrass beds, provides an invaluable source of food for resident and migrating birds.

The Tsitika River supports one of the most diverse fisheries resources on Vancouver Island. All five species of salmon, steelhead and cutthroat trout, Dolly Varden char and eulachon are present. The summer steelhead (rainbow) trout run may be the largest on Vancouver Island (Karanka et al, 1985).

Significant wildlife values (including Roosevelt elk, blacktailed deer, cougar, black bear, Vancouver Island wolf and wolverine, bald and golden eagle) (Harestad et al, 1975) and ecosystem values (vegetation communities ranging from coastal to alpine) are also well recognized.

In addition, the Robson Bight area is the most significant known habitat for killer whales (Orcinus orca) in the world. In their "core area", whales spend the majority of the time resting, playing, socializing, and rubbing on the pebble beaches. While most of the behaviour exhibited by killer whales in Robson Bight is encountered elsewhere, nowhere else is it as frequently or as reliably

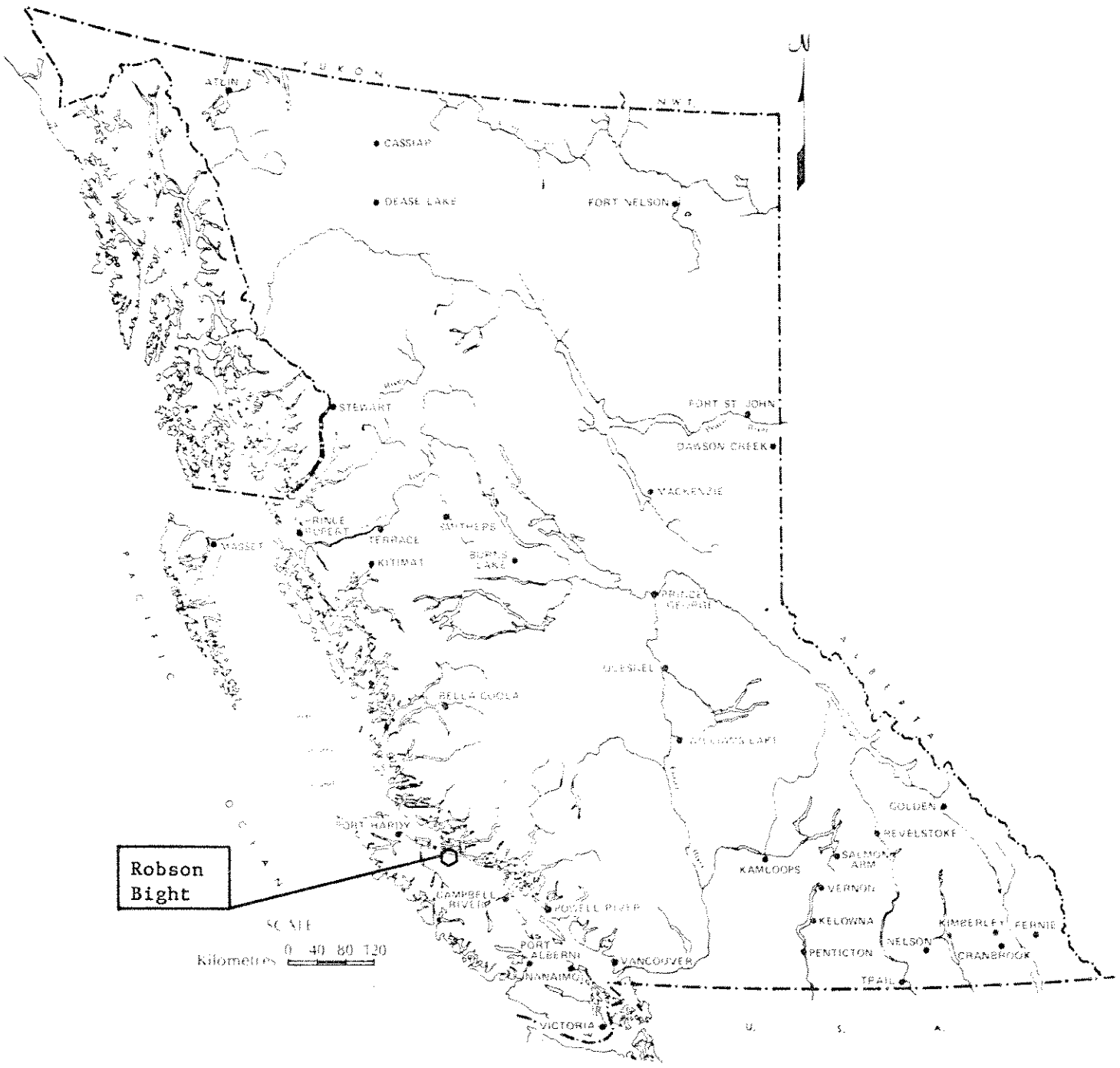


Figure 1: Location of Robson Bight in British Columbia

encountered. In addition, the phenomenon of whales rubbing on beaches is very rare, it has been encountered only once in another location, and little is understood of its meaning or purpose. In summary, Robson Bight and vicinity offers an opportunity which is globally unique to study and observe killer whales in their natural habitat because of their concentration in a small and relatively accessible area where their presence and behaviour is very predictable (Rennie, 1982).

1.3 THREATS OR MANAGEMENT PROBLEMS

The major threats to the biological productivity of the Tsitika watershed and the serenity of Robson Bight and its associated whale habitat include the impacts of pending forestry developments, the dearth of information on killer whale behaviour and the potential orca harassment problem by unsupervised whale watchers.

Logging of the watershed will likely increase sediment loads, increase water level fluctuations, and affect wildlife and fisheries resources as well as the aesthetic appearance of the forested slopes above the bight. The impact of soil erosion is unknown at this time because due to strong, local current and waves, sediment loads may accumulate in the estuary and the bight, or they may be flushed out of the estuary entirely.

A great deal remains to be learned about the biology and behaviour of the killer whale. The complexity of its nature, its acoustic patterns, and even its population biology have led to international interest in conducting killer whale research, particularly in northern Johnstone Strait and the Robson Bight area.

As a result of the great media exposure given to the killer whales at Robson Bight and increased access to the north end of the Island, people management became a problem during the summer of 1981. Numbers of visitors to the area increased phenomenally and incidences of whale harassment were reported. The cumulative effect of power boats, float planes, scuba divers, film crews and photographers contributed to disturbance of killer whale pods. Killer whales are most sensitive to disturbance when at the rubbing beaches and in the bight. It is feared that if the shoreline profile is drastically altered or the whales are overly disturbed when in this core area, they may leave the entire area.

A draft set of guidelines for behaviour and etiquette around killer whale pods has been prepared and forms the basis of a management program for the area (Appendix 1). Protection of marine mammals and their habitat is covered under the Fisheries Act, but enforcement of the Act is difficult because a clear definition of whale harassment is lacking. It is felt by those involved with whale protection that amendments to regulations under the Fisheries Act is required in order to clarify the meaning of harassment and to provide for more enforceable protection of marine mammals, particularly killer whales.

1.4 CURRENT MANAGEMENT AND PROTECTION

In 1978, the B.C. government released the Tsitika Watershed Integrated Resource Plan which outlined the manner in which the watershed would be logged, with various considerations for wildlife and fish habitat (B.C. Ministry of Forests, 1978). Seven small ecological reserves, one of which would cover the estuary at the river's mouth, were proposed. In the plan, MacMillan Bloedel proposed log handling take place in the bight and the importance of the bight to killer whales was not mentioned.

In response to the Resource Plan, various public interest groups petitioned for preservation of the core killer whale habitat area and the lower watershed. The Sierra Club of Western Canada put forth a brief in 1981 which proposed that both an ecological reserve and a provincial park be created. Public support for the protection of Robson Bight and the killer whales has been overwhelming and a considerable amount of literature has been generated (see Appendix 2).

After deliberation of the various alternatives including provincial park, ecological reserve, and both park and reserve status, the B.C. Parks and Outdoor Recreation Division decided upon the Ecological Reserve proposal. Reasons for this choice included the cost involved in compensating the lumber companies for land and timber leases in the lower watershed, and public pressure opposed to a park because it would further attract visitation to the area.

Additional publicity is presently perceived by whale researchers as potentially negative. Provincial Ecological Reserve status would entail neither advertisement nor an interpretive/educational program. However, management of the area is regulated under the provincial Parks Act and wardens are on site to patrol the area during the summer season. A proposal to give the area a National Site of Canadian Significance (NSCS) status, i.e., a site containing a natural feature or phenomenon which is unique or rare in Canada or the world, or the best example of a particular natural theme component in Canada, would need to ensure that appropriate management was in place to provide for the long-term protection of the unique values of the site.

The Tsitika Follow-up Committee was formed by the B.C. government to monitor logging effects, ensure that the resource plan is followed, and recommend changes if necessary. To date, logging is proceeding downstream from the Tsitika headwaters as well as along the shoreline of Johnstone Strait from the south. No studies to examine the effects of upstream logging on an estuary are planned, and no assessment of what the effects might be on the habitat of the killer whales is available.

2.0 SITE CHARACTERISTICS

2.1 LOCATION AND PHYSICAL CHARACTERISTICS

Robson Bight is located on the northeast coast of Vancouver Island at the mouth of the Tsitika River, approximately 75 km southeast of Port Hardy and approximately 120 km northwest of Campbell River (Figure 1). The watershed covers 39,400 ha, with a mainstem length of 42 km. The river valley runs between two mountains of the Vancouver Island Range, Mount Derby to the east and Mount Tsitika to the west. Land elevation reaches a maximum of 1,780 m, then drops steeply into Johnstone Strait where the river has formed an alluvial fan with three main channels. The estuary, which contains primarily gravel substrate with some finer river sediments, is located between 126°34' and 126°36'W and 50°28.5' and 50°29.1'N.

The bight, or open bay, measures 3.5 km at its greatest width. Most of the shoreline consists of rocky bluffs, and small, sheltered pebbly beaches. Beyond the lower subtidal area, the bottom falls away rapidly to deep water, reaching a depth of 50 fathoms inside the bight and close to 100 fathoms at the outer edge of the bay.

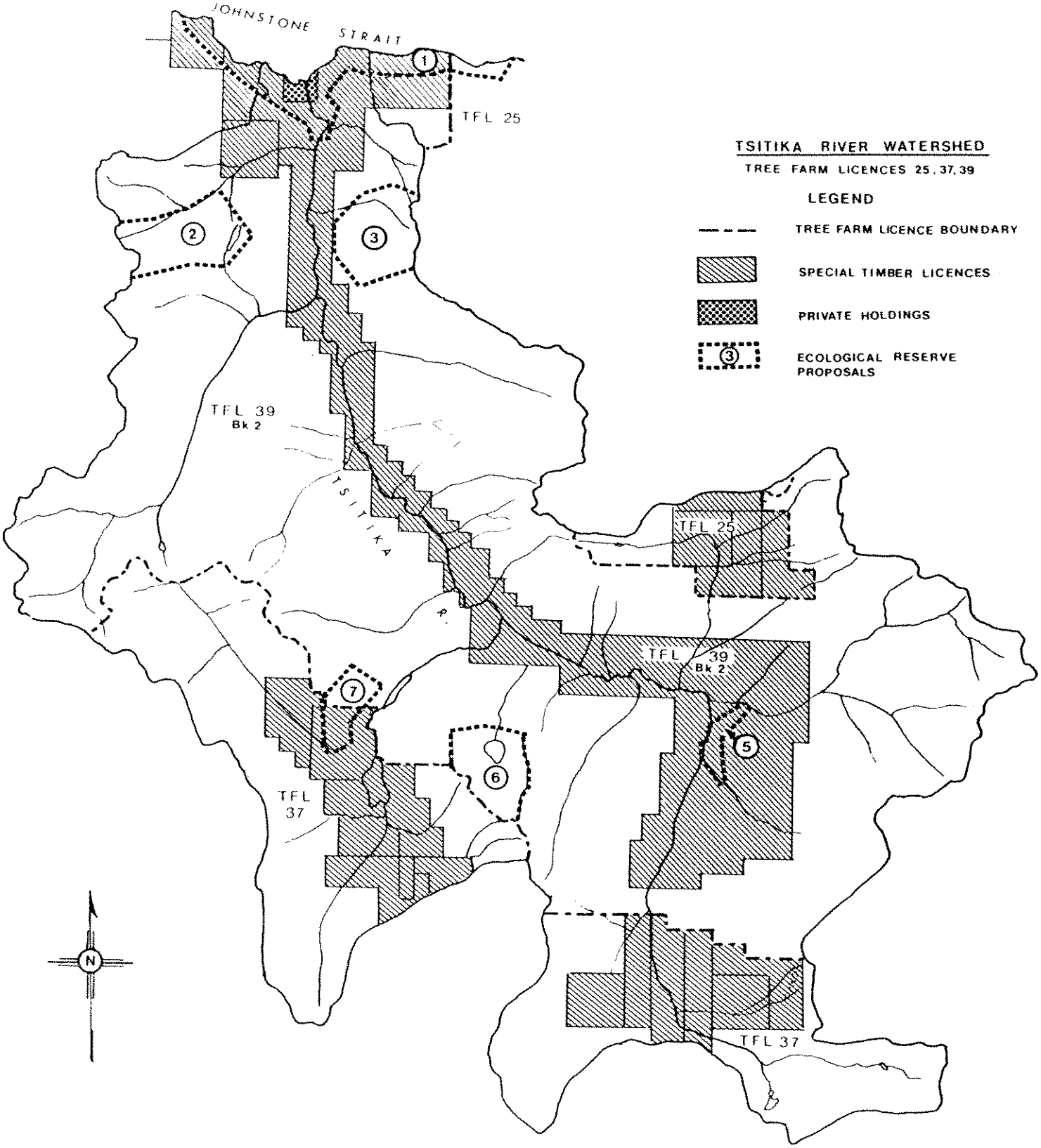
2.2 OWNERSHIP, LEGAL DESCRIPTION AND SIZE

Figure 2 shows the Tsitika River watershed, current land tenure and the locations of seven proposed ecological reserves. The project proposed herein addresses the acquisition of one private lot including the timber rights, that forms the estuarine plain for the Tsitika River (Figure 3). Lot 223 contains 1811 m of irregular oceanfrontage and 34.8 ha of merchantable timber on a growing site rated as predominantly good (Coell & Associates, 1985). The registered owner has committed this property to forestry use.

Legal Description:	District Lot 223, Rupert Land District
Size:	38.06 ha (94 acres)
Registered Owner:	MacMillan Bloedel Ltd. Timberland and Properties Division 1075 West Georgia Street Vancouver, B.C. V6E 3R9

One Ecological Reserve was created in the area on June 17, 1982, in order to protect valuable killer whale habitat. This reserve, known as the Robson Bight Ecological Reserve No. 111, is located on the foreshore north of the subject, and covers a water area of 1248 ha (Figure 3).

LOCATION AND LAND TENURE OF PROPOSED TSITIKA AND ROBSON BIGHT ECOLOGICAL RESERVES



SCALE: 1 INCH = 40 CHAINS

Figure 2

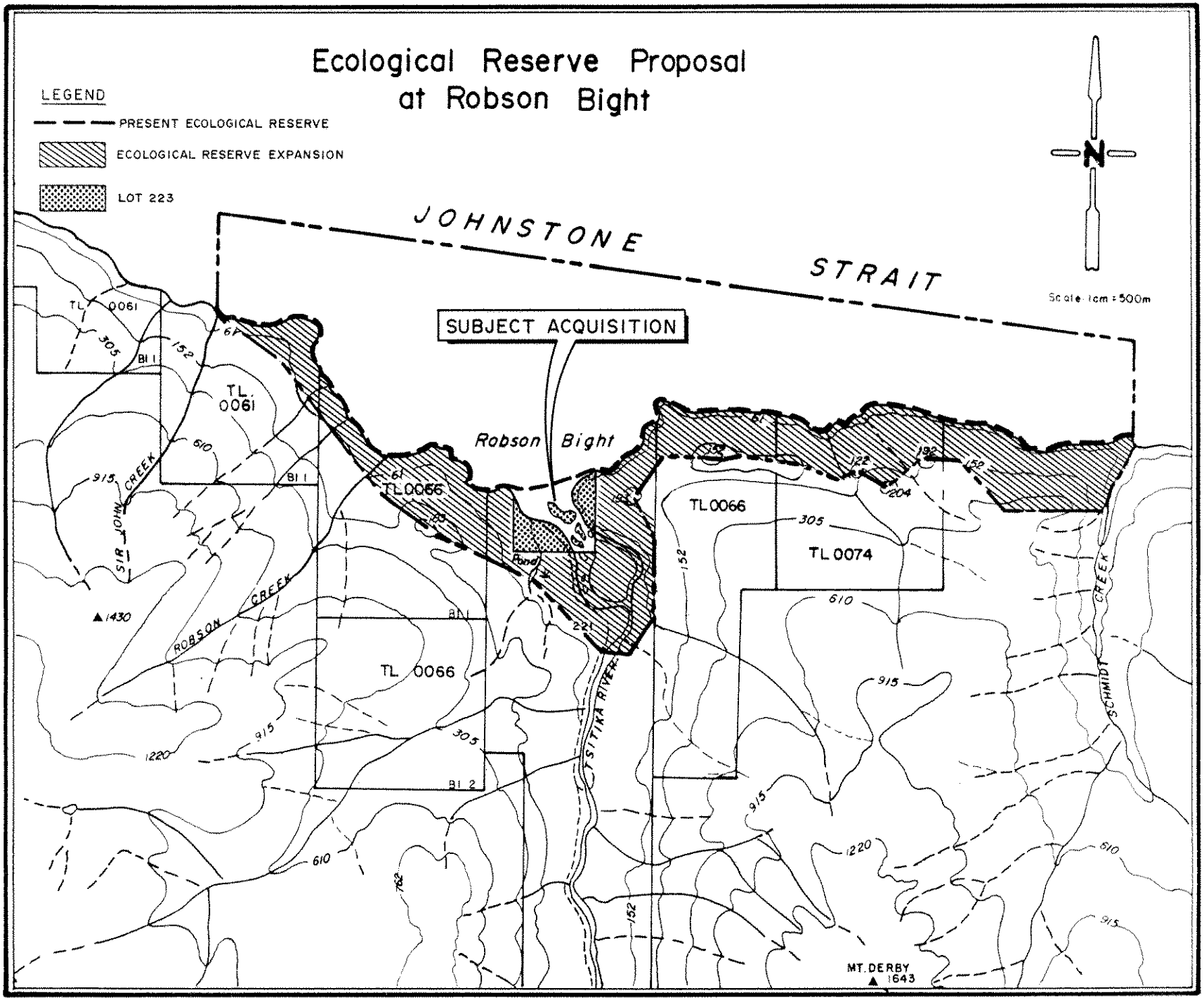

Ecological Reserve Proposal
at Robson Bight
LEGEND
PRESENT ECOLOGICAL RESERVE
ECOLOGICAL RESERVE EXPANSION
LOT 223
JOHNSTONE STRAIT
SUBJECT ACQUISITION
Robson Bight
N
Scale: 1cm = 500m
TL 0061
TL 0066
TL 0074
SIR JOHN CREEK
ROBSON CREEK
TSITIKA RIVER
SCHMIDT CREEK
▲1430
MT. DERBY
▲1643

Figure 3

3.0 PROJECT GOALS AND OBJECTIVES

The goal of this proposal is to augment Ecological Reserve No. 111 at the outflow of the Tsitika River into Johnstone Strait to preserve a killer whale "core area" and its backdrop at Robson Bight.

The objectives of this proposal are to:

1. Acquire 38.06 ha of private land and timber from MacMillan Bloedel Ltd. for $414,100; and,

2. Lease the above acquisition to the Ecological Reserves Unit of the Ministry of Environment and Parks for 99 years to be combined with the existing 1248 ha Robson Bight Ecological Reserve No. 111 and the proposed 515 ha land portion to be acquired by an exchange of timber rights and land between the Crown and MacMillan Bloedel Ltd. Upon completion, Ecological Reserve No. 111 will total 1801 ha.

4.0 ECOLOGICAL DESCRIPTION AND PROJECT IMPLEMENTATION

4.1 ECOLOGICAL DESCRIPTION

4.1.1 Climate and Vegetation

The climate of the area may be classified as Marine West Coast; precipitation is high, humidity is high, and fog, especially in the summer, is common. Weather patterns are influenced to a large extent by local topography. While lower elevations of the watershed receive an average of about 250 cm/year of rainfall, precipitation increases at higher elevations, with much of it falling as snow in winter.

Temperatures are moderate with relatively slight fluctuation. Mean temperatures at Alert Bay, 28 km to the northeast, average 14.1°C in July and 3.0°C in January.

Vegetation in the Tsitika River estuary consists of mature forest stands on the islands and upland areas, intertidal uplands and various algal communities in the lower estuary. Principal tree species are western hemlock, Douglas fir, and Sitka spruce. In addition, western red cedar, lodgepole pine and red alder inhabit the area. As the lower watershed has yet to be logged, much of this forest stand consists of virgin timber.

Intertidal vegetation species include Bering's hairgrass, dune wild rye grass, carex sedge, and sea plantain. Of the many algal communities, rockweed and sea lettuce are the most abundant. Within Robson Bight, there are a number of bull kelp beds, a large patch of eelgrass, and a variety of coralline and brown algal species. These algal communities harbour high populations of invertebrates, which in turn attract a variety of fish species.

4.1.2 Fish

The Tsitika River and its tributaries support one of the most diverse fisheries resources on Vancouver Island. British Columbia Fish and Willdife Branch surveys of the river indicate that anadromous salmon species returning to the river each year include approximately 6,000 pink salmon, 1,200 chum salmon, 2,000 coho salmon, and a small number of sockeye and chinook salmon (Chamberlin et al, 1975). Anadromous trout species (steelhead) include approximately 3,500 summer and winter run rainbow trout, as well as an unknown number of cutthroat trout and Dolly Varden char. The Pacific lamprey, eulachon, and the prickly sculpin are also found in the system.

Robson Bight, particularly the estuarine area, forms important staging and feeding areas for all of these species, and provide a highly productive and protective rearing habitat for juvenile salmonids.

4.1.3 Killer Whales

It is estimated that about 265 killer whales, in 30 pods, inhabit the inshore waters of B.C. Two types of pods are present; resident and transient. Resident pods are divided into a northern and southern community. The northern community utilizes the stretch of Johnston Strait which centres around Robson Bight. There are 12 pods, totalling about 150 whales, most of which are present from July to October (Rennie, 1982).

Robson Bight is unique in that killer whales in this area behave differently than they do elsewhere; their behaviour and movements are predictable; and they can be reliably encountered in an area with easy access and relatively protected waters. Their main activity in the area occurs within about 30 meters of shore and consists of lying still on the surface or moving slowly along the shore. They frequently rub themselves on rocky outcroppings and the pebble beaches of the Bight (Rennie, 1982).

4.1.4 Wildlife and Birds

While Robson Bight is renowned for the presence of the killer whale, there are other wildlife resources present within the bight, the estuary and the watershed. These include blacktailed deer, Roosevelt elk, wolves, cougars, black bears, harbour seals, Dall porpoises, mink, and river otter.

A wide variety of birds, including raptors, passerines, cavity nesters, waterfowl, and shorebirds also utilize the area (Jones, 1978). Bald eagles nest on the islands, and golden eagles have been sighted. The area is of considerable importance to migratory and resident shorebirds and waterfowl as it lies along the Pacific Flyway. While no major breeding colonies are present, the diversity of habitats suggests that a variety of birds is likely nesting in the area.

4.2 PROJECT TIME FRAME AND WORK SCHEDULE

The primary objective of this proposal is to generate sufficient financial support to purchase 38.06 ha of deeded land and an adjacent 515 ha of Crown upland to expand the Robson Bight Ecological Reserve No. 111 to 1801 ha. Background activities to date and the short term work schedule are as follows:

Background

	Activity	Completion Date
1.	Tsitika watershed proposed for ecological reserve status.	1972
2.	Preliminary draft of the Tsitika Watershed Integrated Resource Plan completed by Tsitika Planning Committee.	Spring 1978
3.	Designation of 1248 ha of foreshore area as the Robson Bight Ecological Reserve No. 111.	June 17, 1982
4.	Initial interest by The Nature Trust (TNT) and offer of assistance to Ecological Reserves Coordinator.	December 13, 1982
5.	Ministry of Lands, Parks & Housing welcomes TNT assistance and former assumes responsibility for completing an appraisal to assess land and timber values.	January 12, 1983
6.	Tsitika - Robson Bight funding proposal to TNT by Sierra Club of Western Canada.	April 15, 1984
7.	Robson Bight submission to Cabinet by Ecological Reserves Unit.	May 31, 1984
8.	TNT informed Ministry of Lands, Parks & Housing that former was prepared to assist in the funding of the Robson Bight acquisition.	June 14, 1984
9.	TNT informed by Ministry of Lands, Parks & Housing that an appraisal was in progress and TNT role would be clarified.	August 30, 1984
10.	TNT informed by Deputy Minister of Ministry of Environment that TNT would be kept informed of new developments.	April 22, 1985
11.	Appraisal on Lot 223, Rupert District "Robson Bight" completed by D.R. Coell and Associates Inc., Victoria.	July 17, 1985

12.	MacMillan Bloedel Ltd. agrees to sell land ($84,600) and timber ($329,500) on Lot 223 for a total of $414,100.	February 7, 1986
13.	Ministry of Environment & Parks confirmation that the Provincial Cabinet had approved $207,000 plus incidental costs for TNT acquisition of Lot 223.	August 17, 1987
14.	TNT site visit.	September 16, 1987

Future Events

	Activity	Proposed Completion Date
1.	TNT final negotiations with MacMillan Blodel Ltd. on acquisition details.	October 30, 1987
2.	Wildlife Habitat Canada proposal review.	November 25 - 27, 1987
3.	Ministry of Environment & Parks via the Crown Land Fund payment of $207,000 "in trust" to TNT solicitors and, upon acceptance of proposal, Wildlife Habitat Canada payment of $103,500 "in trust" to TNT solicitors.	December 15, 1987
4.	Completion date, pay out and transfer of title.	December 18, 1987
5.	Process TNT 99 year lease with of Environment & Parks.	February 15, 1988
6.	Establishment of Ecological Reserve No. 111.	1988

5.0 FUTURE MANAGEMENT

5.1 ECOLOGICAL RESERVE STATUS

The Ecological Reserves Act, created in 1971, empowers the provincial Cabinet to reserve, through Order-in-Council, Crown land for ecological purposes. Reserves may be established on lands identified as representative examples of ecosystems, gene pool reserves, and/or areas of long term environmental research and study and casual, non-consumptive use of an ecological reserve is permitted. Research or education use may be undertaken only when authorized by a permit. Reserve establishment and permitting procedures are the responsibility of the Ecological Reserves Unit of the Ministry of Environment & Parks (Krajina et al, 1978).

This project proposes to expand Ecological Reserve No. 111 which currently exists on the Crown foreshore areas of Robson Bight to include the private property to be acquired from MacMillan Bloedel Ltd. (Lot 223 - refer to Figure 3). Once purchased, the land would be leased to the Ecological Reserves Unit of the Ministry of Environment and Parks to allow for the establishment of an Ecological Reserve on the acquired private land, the foreshore and Crown uplands.

Inclusion of Lot 223 in Ecological Reserve No. 111 is easily justifiable. Robson Bight is the most significant core habitat for killer whales in the world, and lies at the mouth of the Tsitika River watershed, which, until 1979, remained the last unlogged watershed on Vancouver Island's east coast. The Tsitika estuary is one of the few remaining undisturbed estuaries on the east coast of Vancouver Island. It represents a sensitive environment which could serve as an important benchmark for primary and secondary productivity research as well as hydrology studies. It is an area of pristine natural beauty, with significant wildlife values, fisheries values, and ecosystem values.

The proposed logging of the Tsitika watershed will likely increase sediment loads, increase water level fluctuations, and affect fisheries resources in the system. In addition, the aesthetics of the forested slopes above the bight will deteriorate. These land use practices, combined with increased camping and commercial and recreational boat traffic outside the core whale habitat, have the potential to seriously impact the natural quality of the site. Status as an Ecological Reserve will ensure that the designated area remains in its natural state, not for the benefit of human recreation, but for the benefit of wild species and their environment. Watching the whales from a boat adjacent to the reserve will be permitted, provided recreational boaters cooperate in refraining from any detrimental encroachment that may unduly disturb the whales (Appendix 1).

Expansion of Ecological Reserve No. 111 is not the only reserve planned for the Tsitika River watershed. The Ministry of Environment & Parks has negotiated the designation of six other Crown land parcels in the Tsitika River watershed to be designated as Ecological Reserves (Figure 2). Combined with Ecological Reserve No. 111, these additional six areas are distinct, unique examples of natural communities that will represent and preserve representative habitats throughout the watershed.

This is not the first time an Ecological Reserve has been created on private lands. In 1985, The Nature Trust of B.C. acquired 3.1 ha of land called Sky Meadows, near Sardis, one of only two known locations in B.C. where the rare phantom orchid (Eburophyton austiniae) grows. The Nature Trust leased the land to the Ecological Reserves Unit of the Ministry of Environment & Parks, and the Katherine Tye Phantom Orchid Ecological Reserve No. 314 was created in December of 1986.

6.0 PROJECT COSTS

The cost of the acquisition of Lot 223 will be $84,600 for the land and $329,500 for the timber for a total of $414,100. This assessment of fair market value was provided by D. R. Coell and Associates Ltd., Real Estate Appraisers and Consultants, Victoria, B.C., on July 17, 1985. It is proposed that these costs be co-funded as follows:

Ministry of Environment & Parks (Crown Land Fund)	$ 207,050
The Nature Trust of B.C.	103,525
Wildlife Habitat Canada	**103,525**
	$ 414,100

Incidental conveyancing and leasing costs will be paid by the Provincial Government.

6.1 TERMS OF PAYMENT

The vendor has agreed to accept $414,100 for Lot 223 and the timber thereon. Ministry of Environment & Parks (MOEP) made a commitment on August 7, 1987 to fund half the price and the incidental costs of this acquisition (please refer to Section 7). If this proposal to Wildlife Habitat Canada (WHC) is successful, it is anticipated that MOEP and WHC would deposit their contributions "in trust" with The Nature Trust's solicitor by December 15, 1987; on this basis, title would be transferred to The Nature Trust on December 18, 1987.

7.0 SUPPORTING AGENCIES

7.1 MINISTRY OF ENVIRONMENT AND PARKS

The mandate of this ministry is the maintenance of a quality habitat for humans, wildlife and fish within the Province of British Columbia. In addition, the ministry develops and manages the provincial park system, and provides land and funds to local governments for community and regional parks and promotes the most enjoyable use of the outdoors.

Ministry of Environment and Parks letters of support and financial commitment are included in Appendix 3.

7.2 FISHERIES AND OCEANS CANADA

The responsibility for fisheries management was assigned to the Government of Canada in the British North America Act. The federal Fisheries Act, passed in 1867, protects fish habitat from pollution and other damage and law enforcement responsibilities are shared in some jurisdictions with provincial governments.

A Fisheries and Oceans letter of support is included in Appendix 3.

7.3 THE SIERRA CLUB OF WESTERN CANADA

The Sierra Club of Western Canada was incorporated to explore, enjoy and protect the integrity of Canada's natural heritage. The club has been very instrumental in the development of the Tsitika River Ecological Reserve program since 1981 and a letter of support is included in Appendix 3.

This proposal was prepared by R. Erickson and approved for submission to Wildlife Habitat Canada on September 28, 1987 by B. M. Hoffmeister.

B. M. Hoffmeister
Chairman
The Nature Trust of B.C.

R. Erickson
Executive Director
The Nature Trust of B.C.

Photo 1: The red lines approximate the boundaries of the 38.06 ha Lot 223 at the mouth of the Tsitika River. The property includes mixed conifer Douglas fir, western red cedar and hemlock (upper left or southwest corner), red alder (portions of three islands at lower left or southeast corner) and Sitka spruce (seaward one-half of long narrow diagonal island) forest cover. The northern boundary of the property consists of 1811 meters of irregular oceanfrontage including upper and lower intertidal wetlands (B.C. Government air photograph, BCC 209 #17, June 14, 1979).

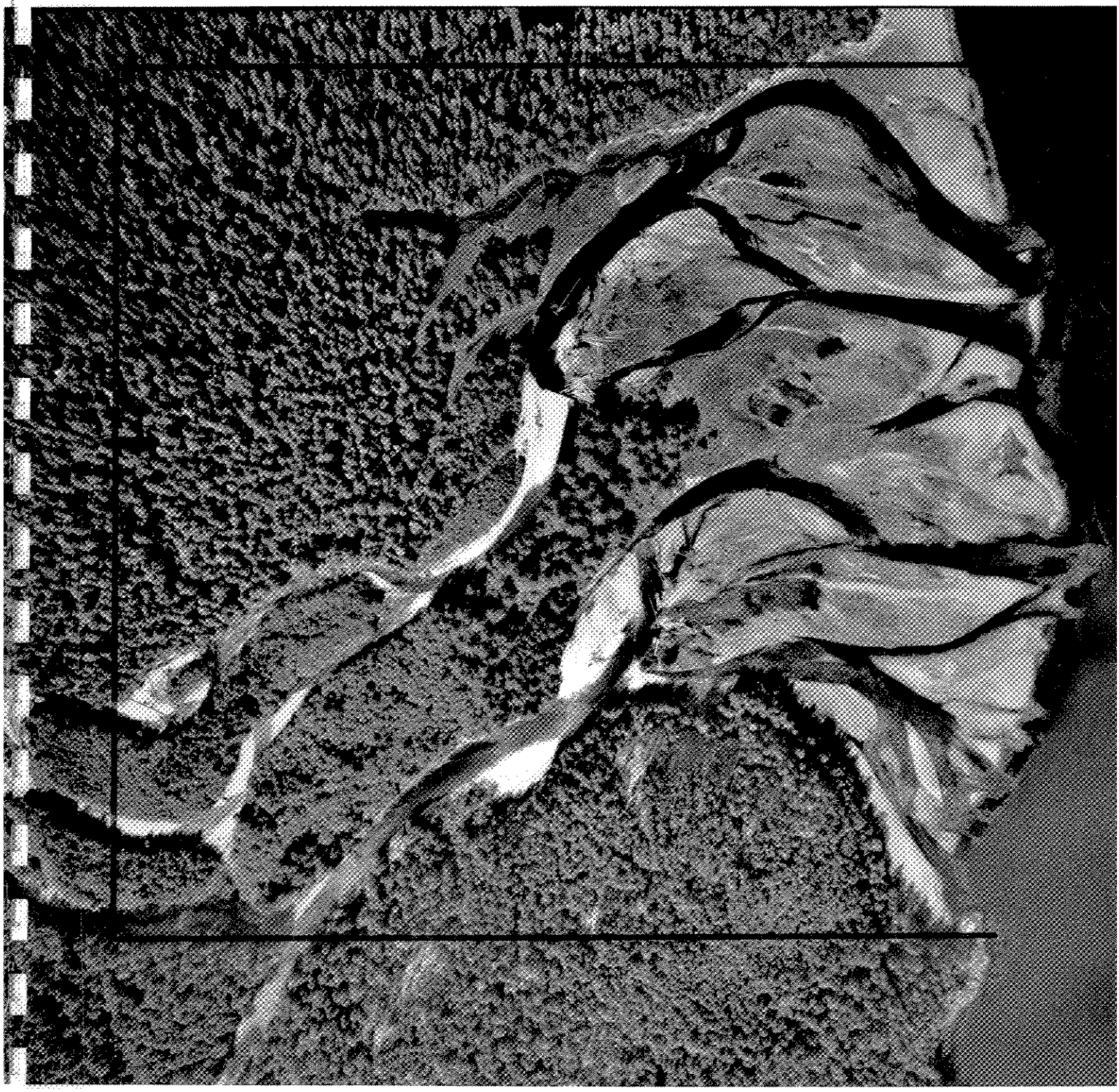
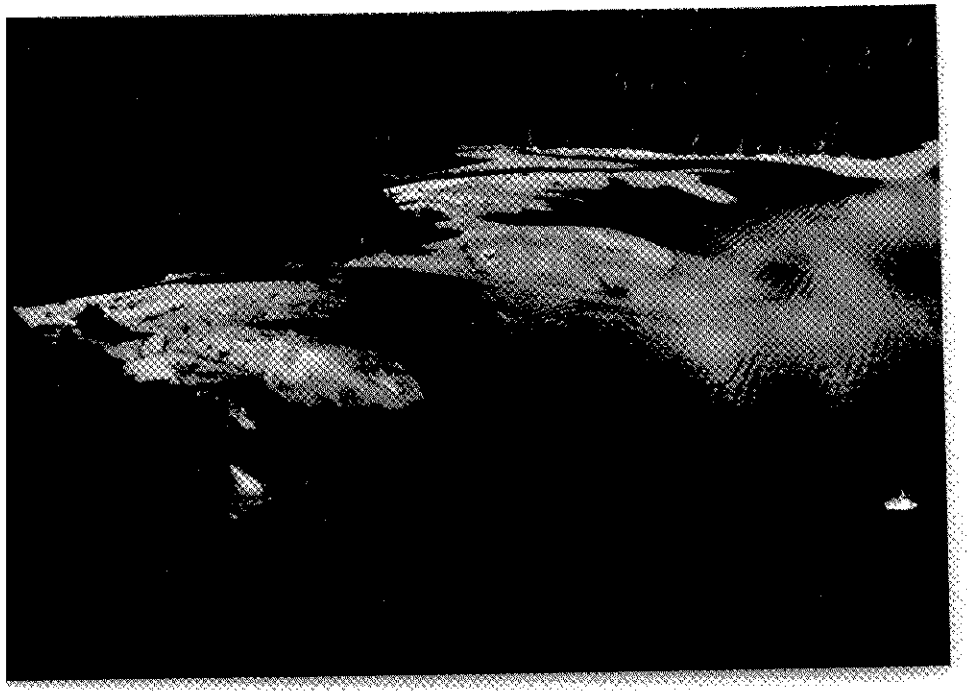


Photo 2: An oblique aerial photo of the Tsitika River estuary. A stand of very large Sitka spruce is visible on the island in the upper left part of the picture.

Photo 3: Understory vegetation in the Sitka spruce stand (Photo 2).

Photo 4: The smallest of the four channels at the mouth of the Tsitika River provides excellent fish rearing habitat.

Photo 5: Exceptional viewing opportunities of killer whales are common occurrences in northern Johnstone Strait.



BIBLIOGRAPHY

Coell, D. R. and Associates Inc. July 17, 1985. Appraisal of Lot 223, Rupert District "Robson Bight". Prepared for Holmsen Forestry Ltd., 540 Shannon Way, Delta, B.C. 27 pp.

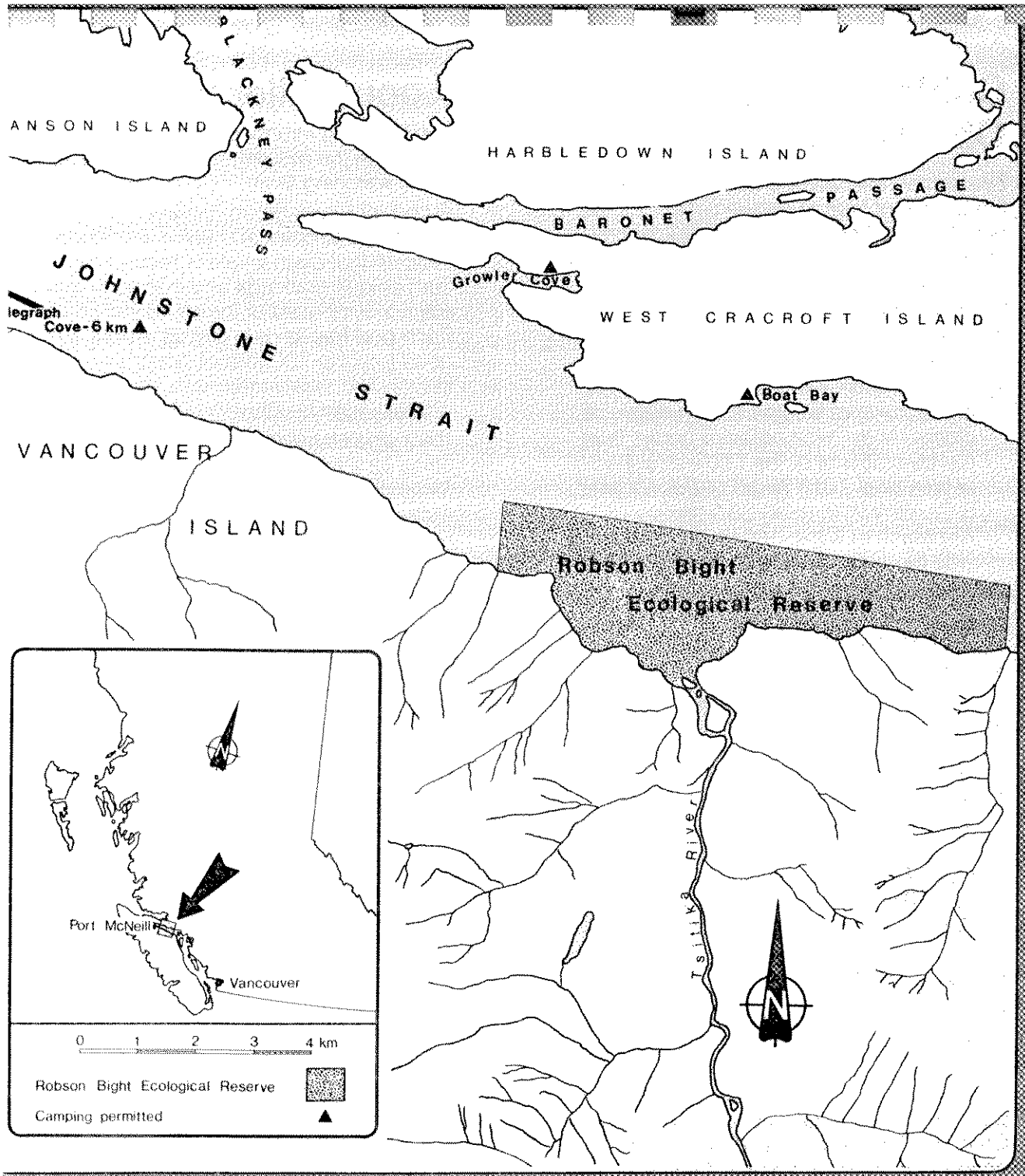
Krajina, V.J., J. B. Foster, J. Pojar and T. Carson. 1978. Ecological Reserves in British Columbia. Ecological Reserves Unit, Ministry of Environment, Victoria, B.C. 269 pp.

Rennie, F. 1982. An Assessment of the National Significance of Robson Bight, British Columbia. Final Report. Park System Planning Division. National Parks Branch, Parks Canada, Ottawa, Ont. 69 pp.

The Sierra Club of Western Canada. 1981. Tsitika Provincial Park Robson Bight Ecological Reserve No. 111. A brief in support of their establishment. 536-A Yates Street, Victoria, B.C. 25 pp.

A P P E N D I C E S

Robson Bight Ecological Reserve



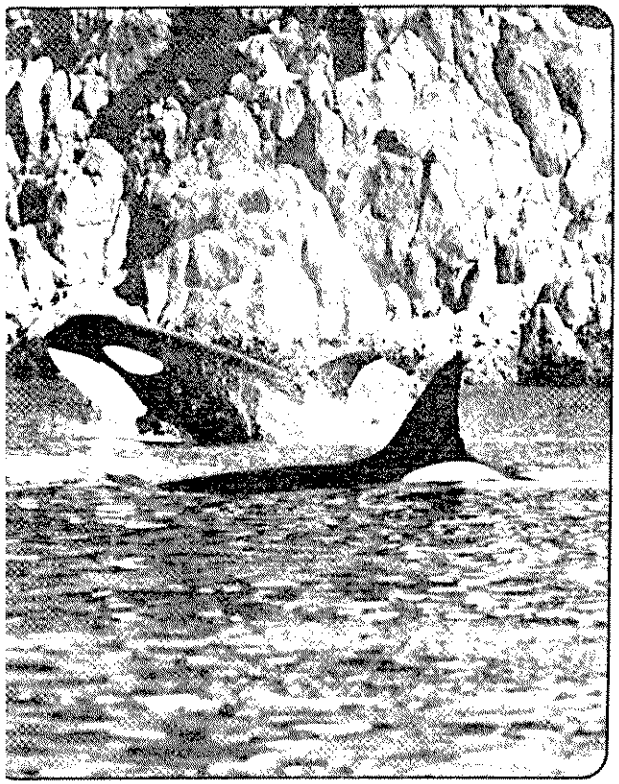
BC

Ministry of Lands, Parks and Housing
Honourable Anthony J. Brummet, Minister

Robson Bight Ecological Reserve

Robson Bight Ecological Reserve was established in June, 1982 by the Province of British Columbia to protect a core habitat of the killer whale for research and educational purposes.

Robson Bight is known as one of the best locations in the world for scientific observation of *Orcina orca*, the killer whale. As an ecological reserve, it is protected from incompatible development and designated for scientific study. Its effectiveness for study and education depends on recreational boaters co-operating in refraining from detrimental encroachment.



Guidelines For Observing Killer Whales

Ecological reserves are not established for the benefit of human recreation but for the benefit of wild species and their environment. However, watching the whales from a boat in the reserve is permitted, provided the following guidelines are observed to avoid disturbing the whales unduly and for your own safety:

1) Keep at least 300 m away. Anyone wishing to observe whales in the reserve at closer range must obtain a permit from the co-ordinator of the Ecological Reserves Unit, 1019 Wharf Street, Victoria, B.C., V8W 2Y9, (604) 387-1859. Approach to within 100 m is allowed outside the reserve without a permit.
2) Do not approach whales from the front as this will disperse them. Approach them slowly from the rear or side.
3) Keep noise levels down — no horns, shouting or racing motors.
4) To avoid disturbing the whales, please concentrate your efforts to observe them outside of the reserve. (See map)
5) Be conscious of the effect of your actions on the whales. Do not engage in any activity which disturbs or molests them. **It is illegal under Federal Fisheries Regulations, Section 71 (A)(2) to disturb or molest killer whales.**

Camping

Camping, lighting fires and any form of consumptive use is not permitted within an Ecological Reserve. People wishing to camp are requested to do so at Telegraph Cove, Boat Bay or Growler Cove on West Cracroft Island. (See map) Anchorage is good but there is no fresh water supply. Both are excellent sites for whale watching.

About Killer Whales

The following information will help you anticipate the movement of killer whales when watching them.

A pod, or family group, usually consists of 5 to 20 bulls, cows and juveniles. Studies indicate that each whale is recognizable from unique markings and that each pod is always composed of the same individuals. Each pod has its own dialect. About 30 pods totalling 300 whales occur year round in B.C. and Washington with 19 pods (160 whales) seen in Johnstone Strait.

Killer whales travel at 6 to 8 km/h, sometimes as a tightly-knit group and at other times dispersed over a few square kilometres. Periodically, groups join with one another and are then spread over several kilometres.

The dive sequence consists of one long dive lasting 3 to 4 minutes followed by three short dives of 15 to 20 seconds. Whales range in length from 2.5 m at birth to 8 m in females and 9 m in males. Cows probably live to a maximum of 100 years and bulls to 50 years. On average, a cow gives birth only once every 10 years. Their diet consists mainly of fish.

For more information on killer whales or Ecological Reserves, write to:

Ecological Reserves Unit
1019 Wharf Street
Victoria, B.C.
V8W 2Y9 (604) 387-1859

ISBN 0-7719-9799-X 32359

P111-2 **Anonymous. 1973.** In the mountain meadows the beer cans slowly rust. British Columbia Lumberman, July 1973:41-44.

P111-7 **Anonymous. 1978.** Vancouver Island committee to oppose logging of Tsitika Valley. Press release, February 22, 1978. 2 p.

P111-15 **B.C. Fish and Wildlife. 1979.** Tsitika Estuary birds and mammals inventory: terms of reference. Report submitted to Tsitika Follow-up Committee. 4 p.

P111-1 **B.C. Ministry of Forests. n.d.** Tsitika resource management plan: public involvement opportunity. Pamphlet. Victoria, B.C. 1 p.

P111-8 **B.C. Ministry of Forests. 1978.** The Tsitika integrated resource plan - script. Report submitted to the Ecological Reserves Program, Victoria, B.C. 19 p.

P111-20 **B.C. Parks and Outdoor Recreation. 1985.** Robson Bight Ecological Reserve upland extension. Ministry of Lands, Parks and Housing, Victoria, B.C. 10 p.

Barichello, N.L. 1975. Habitat selection of blacktailed deer in the Tsitika watershed of Vancouver Island. B.Sc. Thesis, University of British Columbia.

P111-3 **Canadian Forest Products. 1974.** Management plan for the integrated resources of the Upper Claude Elliott and Tsitika watersheds. Report submitted by Englewood Logging Division, to the North Island Study Task Force. 67 p.

P111-4 **Canadian Forest Products. 1975a.** Management plan for the integrated resources of Schoen Creek area. Report submitted by Englewood Logging Division, to the North Island Study Task Force. 13 p.

P111-5 **Canadian Forest Products. 1975b.** Position paper on Tsitika - Schoen resources study. Report submitted by Englewood Logging Division to the B.C. Environment and Land Use Committee, Victoria, B.C. 12 p.

P111-( ) **Chamberlin, T., K. Bond, M. Brownlee, and J. Lamb. 1975.** Biophysical stream survey of the Upper Tsitika River. Technical Report Series No. PAC/T-75-7.

P111-23 **Chatwin, S.C. 1985.** Tsitika River Watershed terrain stability. Initial report in 1982, revised by T.P. Rollerson, 1985. Prepared by Land Use Planning Advisory team for MacMillan Bloedel Ltd., Woodland Service Division, Nanaimo, B.C. 9 p.

P111-( ) **Davies, R.B. 1974.** Ungulate Survey of the Nisnak - Schoen, 1974. B.C. Fish and Wildlife Branch, Ministry of Environment, Victoria, B.C. Unpublished report.

Ellis, R.M. 1974. Habitat selection and distribution of ungulates on Vancouver Island: a comparison. B.S.F. Thesis, University of British Columbia.

P111-6 **Federation of B.C. Naturalists. 1975.** Submission to the Environment and Land Use Committee respecting disposal and use of the Tsitika-Schoen area. Report submitted to the B.C. Environment and Land Use Committee, Victoria, B.C. 4 p.

P111-9 **Gregson, M. 1978** Decision on the Tsitika. ForesTalk, Spring 1978:21-24.

P111-( ) **Harestad, A., C. Jones, and M. Poe. 1975.** Wildlife observations during winter and the Claud Elliot region of the Tsitika River. B.C. Fish and Wildlife Branch, Ministry of Environment, Victoria, B.C. Unpublished report.

P111-21 **Holmsen Forestry Ltd. 1985.** Tsitika watershed proposed timber exchange between the province of British Columbia and MacMillan Bloedel Ltd.: appraisal report (TFL37). Report prepared for B.C. Ministry of Lands, Parks and Housing, Victoria, B.C. 62 p.

P111-22 **Holmsen Forestry Ltd. 1985.** Tsitika watershed proposed timber exchange between the province of British Columbia and MacMillan Bloedel Ltd.: appraisal report (TFL39). Report prepared for B.C. Ministry of Lands, Parks and Housing, Victoria, B.C. 131 p.

P111-( ) **Jones, G.W. 1978.** Claud Elliot Wildlife survey. Canadian Forest Products Limited.

P111-24 **Karanka, E.J., and Associates. 1985.** Tsitika River Survey Project - 1985. Survey Program. Report prepared for Habitat protection Unit, B.C. Fisheries Branch, Nanaimo, and Canada Dept. of Fisheries and Oceans. 20 p. plus figures, Plates, Appendices.

P111-25 **Karanka, E.J. and Associates. 1987.** Tsitika River Survey Project - 1986. Hydrology report prepared for the Tsitika Watershed Follow-up Committee. May 1987. 19 p. + plates.

P111-( ) **Lindsay, K., and S. Fleck. 1975.** An estimate of the death age distribution of the Tsitika River blacktailed deer population by analysis of teeth cementum layers. B.C. Fish and Wildlife Branch, Ministry of Environment, Victoria, B.C. Unpublished report.

P111-1A **Moir, B.C., and G. Purchase 1972.** Preliminary results on the wildlife investigations in the Upper White River watershed, Summer 1972. B.C. Fish and Wildlife Branch, Ministry of Environment, Victoria, B.C. Revised report. 85 p.

P111-16 **Moir, B.C. 1979a.** Interim wildlife report: Tsitika River. Woodland Services, MacMillan Bloedel Ltd. 20 p.

P111-17 **Moir, B.C. 1979b.** Deer Report - Tsitika River. Report submitted by MacMillan Bloedel Limited to the B.C. Environment and Land Use Committee, Victoria, B.C. 41 p.

P111-6A **North Island Study Group. 1973.** Tsitika-Schoen resources study. Technical Report Volume I and Appendices Volume II. Report prepared for B.C. Environment and Land Use Committee. 48 p. plus appendices.

P111-6B **North Island Study Group. 1975.** Tsitika - Schoen resources study: summary report. Report prepared for B.C. Environment and Land Use Committee. 43 p.

P111-10 **Orton, D. 1978a.** Report to the member clubs of the Federation of B.C. Naturalists (Vancouver Island region) on the work of "The Committee to extend the Moratorium on logging of the Tsitika Watershed". Letter by the Federation of the British Columbia Naturalists. 9 p.

P111-11 **Orton, D. 1978b.** Lessons from the Tsitika. The Federation of B.C. Naturalists Newsletter 16(4):8-11.

P111-( ) **Reimer, D., and P. Kofoed. 1978.** Analysis of Tsitika River - Schoen Lake contributions to the local and provincial economies. MacMillan Bloedel Limited, Woodlands Services, Nanaimo, B.C.

P111-2A **Roemer, H. 1973.** Tsitika Watershed: Ecology. Report prepared for Dr. V.J. Krajina, University of British Columbia. Addendum to Ecological Reserve application No. 111. 11 p.

P111-( ) **Smith, I.D., and R. Davies. n.d.** A preliminary investigation of the characteristics of deer and elk range in the Tsitika River Watershed, Vancouver Island. B.C. Fish and Wildlife Branch, Ministry of Environment, Victoria, B.C. Unpublished report.

P111-18 **Tsitika Follow-up Committee. 1982.** Tsitika plan implementation procedure. Report submitted to the B.C. Environmental and Land Use Committee, Victoria, B.C. 18 p.

P111-19 **Tsitika Follow-up Committee. 1983.** Tsitika plan status report 1982. Report submitted to the B.C. Environment and Land Use Committee, Victoria, B.C. 72 p.

P111-12 **Tsitika Planning Committee. 1978a.** Tsitika watershed integrated resource plan: summary report. Volume II. Report submitted to the B.C. Environment and Land Use Committee, Victoria, B.C. 67 p.

P111-13 **Tsitika Resource Planning Committee. 1978b.** Tsitika resource management plan: public involvement opportunity- Phase II. Brochure submitted to the public for comment. Vancouver, B.C. 13 p.

P111-14 **United Fishermen & Allied Workers' Union. 1978.** Final report on the Tsitika Watershed Integrated Resource Plan. Vancouver, B.C. 7 p.

P111-6C **Volkers, T., and D. Volkers. 1977.** Tsitika River recreation study. Recreation Section, B.C. Forest Services. Victoria, B.C. 69 p.

Province of
British Columbia

Ministry of
Environment

Vancouver Island Region 1
Regional Headquarters
2569 Kenworth Road
Nanaimo
British Columbia
V9T 4P7
Phone: (604) 758-3951

September 23, 1987

File: 43.5015/TSIT

Mr. Ron Erickson
The Nature Trust of B. C.
909 - 100 Park Royal South
West Vancouver, B. C.
V7T 1A2

Dear Mr. Erickson:

Re: Tsitika River Estuary

This letter is in support of your proposal to acquire the Tsitika River estuary lands.

As you are aware, estuaries are amongst the most biologically productive fish and wildlife areas in British Columbia. The Tsitika is no exception. Its scientific importance is enhanced because it is the last undisturbed estuary on the east coast of Vancouver Island which has a significant delta.

The Tsitika River is particularly important for our steelhead program for several reasons. It contains one of the largest summer run steelhead populations on Vancouver Island and is the largest on the east coast of Vancouver Island. The genetic composition of these fish is unique to Vancouver Island streams (i.e., run timing and size). Because of this we monitor it on a continuing basis in order to predict run sizes to other Vancouver Island streams. We also utilize this stock of fish for enhancing runs of summer steelhead in the Campbell River. Tsitika steelhead do contribute to a sport fishery, but the population is protected by means of a strict catch and release regulation and area closures.

In summary, the Tsitika River estuary is important from both a scientific and a fisheries point of view, particularly because of its summer steelhead populations and the undisturbed delta. For these two reasons, we support your efforts to acquire it.

Yours truly,

M. R. Whately
Regional Fish And Wildlife Manager

GER/bms
bcgeu

cc: R. G. Davies, Senior Wildlife Biologist, Fish And Wildlife
G. E. Reid, Head, Recreational Fisheries Program, Fish And Wildlife

Province of British Columbia

Ministry of Environment and Parks

PARKS AND OUTDOOR RECREATION DIVISION

4000 Seymour Place
Victoria
British Columbia
V8V 1X4

AUG 07 1987

Date: 87-07-28
File: 4-6-3-567

Mr. R. Erickson
Executive Director
The Nature Trust of British Columbia
209 - 100 S. Park Royal S.
West Vancouver, British Columbia
V7T 1A2

Dear Mr. Erickson:

RE: MACMILLAN BLOEDEL PROPERTY - LOT 223;
TSITIKA ESTUARY, ROBSON BIGHT ECOLOGICAL RESERVE

I am pleased to inform you that the Parks and Outdoor Recreation Division has received Cabinet funding approval to acquire the above property. Since the Trust has informally indicated an interest in participating in the acquisition of this property I would like to take this opportunity to formally request your participation as a 50% partner in the property's acquisition.

I am taking the liberty of sending you the appraisal/evaluation material for the property and if the Trust remains interested in the proposal, I am asking the Trust to undertake all negotiations with the Company. I propose that the Trust, upon reaching an equitable price, no higher than the appraisal price of $414,000.00, finalize the agreement and take title to the property. The Crown would then pay to the Trust half the price and incidental costs and lease back the property for addition to Robson Bight Ecological Reserve.

Please contact Mr. Bill Munn of our Planning Section (387-4595) at your earliest convenience.

Yours truly,

M. V. Collins
Assistant Deputy Minister

Government of Canada / Gouvernement du Canada

Fisheries and Oceans / Pêches et Océans

Fisheries - Pacific Region
1090 West Pender Street
Vancouver, B.C.
V6E 2P1

Pêches - Région du Pacific
1090 rue West Pender
Vancouver (C.-B.)
V6E 2P1

Your file / Votre reference

Our file / Notre reference

September 24, 1987

Ron Erickson
Executive Director
Nature Trust of B.C.
909 - 100 Park Royal South
West Vancouver, B.C.

SUBJECT: TSITIKA ESTUARY

Further to your request of Sept. 22, 1987 the following resource statement is provided in support of the proposed Nature Trust acquisition in the Tsitika estuary.

The Tsitika river and tributaries support approximately 6,000 pink, 1,200 chum and 2,000 coho salmon, as well as a small number of chinook and sockeye.

Juvenile coho, chum, chinook and pink rear in the estuary from May through July and are very abundant in Robson Bight during June and July.

Coho in the Tsitika estuary are significantly larger than those in the lower reaches of the river. Scale data also indicates that many coho enter the estuary early and may rear almost exclusively in the estuary.

Length-weight data from chum smolt suggests that non-local, transient stocks which originate in other watersheds also hold and rear in the Tsitika estuary.

The kelp beds and eelgrass/algal beds located on the seaward west side of the estuary support juvenile and adult rockfish, kelp perch, dungeness crab and rock crab among other species. Pandalid shrimp and preferred fish food organisms such as mysids and amphipods have also been reported as abundant in the Tsitika estuary.

The Tsitika estuary although small represents limited habitat in the Johnstone Strait area.

In recognition of its value as a holding, acclimation and rearing area for Tsitika as well as non-resident salmon stocks, its benthic productivity and diversity, the relative scarcity of estuarine habitat in Johnstone Strait and its integral link to Robson Bight which is recognized and renowned as killer whale habitat, DFO would support the proposed Nature Trust acquisition in the Tsitika estuary.

Melody Farrell

. . . To explore, THE SIERRA CLUB OF WESTERN CANADA enjoy and preserve Canada's forests, waters, wildlife and wilderness . . .

Reply to:

September 24, 1987

Mr. Ron Erickson
Nature Trust
Suite 909 - 100 Park Royal South
West Vancouver BC V7T 1A2

Dear Mr. Erickson:

RE: Robson Bight, Lot 223

The Sierra Club of Western Canada would like to support your efforts in obtaining property in the Robson Bight estuary. As you know, protection of this estuary is absolutely essential in preserving the killer whale habitat, especially the primeval rubbing beaches which are, as far as we know, unique in the world.

Keeping this area pristine will also enhance the fisheries resource and is an essential step in retaining the scenic backdrop for the thousands of tourists who pass by the area every summer.

As you know, the Sierra Club has had a long-standing interest in the preservation of the Tsatika watershed and its old growth forests because of the delicate nature of this magnificent habitat.

We would therefore urge you to do everything you can to protect this area.

Sincerely,

Sharon Chow.

SC/jb

Head Office: 314 - 620 View St. Victoria B.C. V8W 1J6 tel. (604) 386-5255
Alberta Office: 456 - 10th St. NW Calgary, Alta. T2L 1Y2 tel. (403) 283-1574