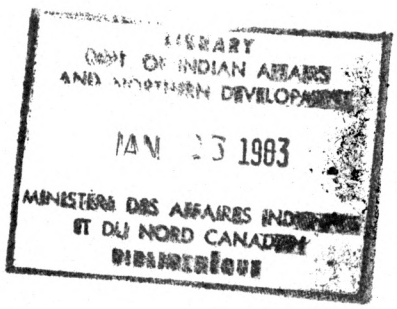
CROSS LAKE

COMMUNITY PLANNING STUDY

Indian and Northern Affairs Canada
Affaires indiennes et du Nord Canada



1100-275 Portage Avenue
Winnipeg, Manitoba
R3B 3A3

November 12, 1980

Your file Votre référence

Our file Notre reference 501/1-19-8 (NF)

RE: NORTHERN FLOOD AGREEMENT
IMPLEMENTATION OF ARTICLE 16 AND SCHEDULE "E"

The Department of Indian Affairs has received the Cross Lake Planning Submission and the request for our proposals on how we intend to meet the contractual obligations of Article 16.4 and Schedule "E" of the Northern Flood Agreement. Please review the attached request and Planning Statement and forward your proposals to me by noon on Friday, November 21, 1980.

Copies of the Cross Lake Planning Study are available on loan from the Community Planning Section on the 14th Floor.

Regards,

B. J. Veinot
Regional Director General

Att.

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Cross Lake Community Planning Study

Prepared by:

Hilderman Feir Witty & Associates
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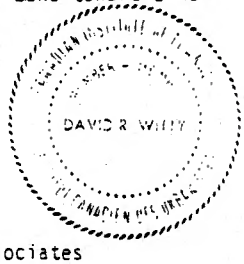
Prepared for:

Cross Lake Band of Indians
Department of Indian & Northern Affairs

August 1980

FOREWORD

This planning study is a major attempt at setting out the long-term aspirations of the Cross Lake Band of Indians. It is meant to be a guiding document in future land use decision-making. It is not intended to be a final report, but rather a stepping stone for additional community analysis in the future. As such, it is the beginning of an attempt to redirect Cross Lake toward a new social and economic future.



David R. Witty, M.C.I.P.

Hilderman Feir Witty and Associates

August 5, 1980

ACKNOWLEDGEMENTS

A number of people contributed toward the completion of this planning study. Foremost amongst these individuals were Alan Paupanekis, Local Planning Coordinator and Elaine Logan, Planning Assistant for Hilderman Feir Witty and Associates. Alan continued to show confidence in the study and reassurance during difficult data gathering stages. Elaine displayed persistent and determined information gathering.

Throughout the study, even under times of difficult stress caused by the extreme water fluctuations on Cross Lake, Chief and Council set aside time to participate in the study. Through their continued support, the study was able to be brought to a conclusion. To Chief George Ross and Councillors Howard Halcrow, Gordon Ross, Jonah McKay, Albert North, Bella Beardy and William Paupanekis - thank you. In addition, the information provided by Etienne Robinson was most appreciated.

Finally, to the people of Cross Lake who took time out to participate in meetings - a special acknowledgement.

Photo Credit for Title Page to Background Study:
Hudson Bay Company Archives

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Summary

This Community Planning Study has been completed with the direction and advice of the Cross Lake Band Council, the Local Planning Coordinator and Band Members. The recommendations of this study reflect the aspirations of the Cross Lake Band of Indians. The following highlights some of these key discussion points.

1. HYDRO IMPACT

   (a) The Northern Flood Agreement is viewed as the means of achieving significant community infrastructure upgrading, social and cultural renewal.

   (b) The impacts caused by Jenpeg Hydro Electric Development have been significant and detrimental to traditional lifestyles, cultural values and the everyday amenities of the community such as water supply and quality, recreation activities and transportation.

   (c) Due to major impacts caused by Cross Lake water level fluctuation, a new town area is recommended for IR 19B.

   (d) A mini-impact study board under the auspices of the Canada Water Act is proposed to examine the particular impacts of Jenpeg upon Cross Lake.

   (e) A program of replacement food stock is proposed for the loss in domestic food production caused by the water regime alteration.

   (f) It is suggested that the Cross Lake Band of Indians seek additional and specific compensation for the adverse effects of Lake Winnipeg Regulation.

   (g) A control structure at Bladder Rapids is recommended for investigation as a means of reducing impact of Lake Winnipeg Regulation.

2. HOUSING

   (a) A Band Housing Authority, non-profit operation, is proposed to coordinate new housing design, construction and repairs.

   (b) Any future housing is proposed to meet northern living requirements, provide for expansion and adequate storage, reduce heat loss and meet CMHC standards.

   (c) A Senior Citizen's Home is proposed.

   (d) Housing development is recommended for continuation through IR 19 and IR 19A but long-term housing is proposed for the new town area.

   (e) In the traditional housing areas water delivery and internal holding tanks and waste disposal systems are proposed. The majority of housing in the new town area is proposed to be serviced with running water and sewer.

3. EDUCATION

   (a) A new school is proposed for Cross Island.

   (b) Local education control is recommended for the Band.

   (c) In all development programs, training is proposed as a fundamental component.

4. EMPLOYMENT

   (a) All government sponsored programs requiring employment are proposed to require tendering locally first.

   (b) It is recommended that full-time employment programs be a major focus for all levels of government but that such programs not take place to the detriment of traditional activities.

   (c) Throughout all recommended development programs, community self-reliance and training is stressed.

   (d) Job creation is viewed as a major community focus.

5. HEALTH

   (a) Water supply upgrading at Albert Lake and Cross Island is proposed to ensure adequate and safe domestic water supply.

   (b) An upgraded system of internal house holding tanks and water truck delivery is proposed in combination with joint-use wells where feasible.

   (c) Upgraded sanitary sewage disposal is recommended in the form of joint-use disposal fields and truck removal.

   (d) An extended care facility/hospital is recommended for Cross Lake to avoid the need to continually send residents out of the community for treatment.

6. ECONOMIC DEVELOPMENT

   (a) Government committment to hire local enterprises for all types of work programs is viewed as a prerequisite to eventual long-term community self-reliance.

   (b) A log lathe operation is proposed for the Band to supply housing and other local building material needs.

(c) The strengthening of Mid-North Develoo-ment Corp. through preferential contracting is proposed.

(d) Regional resource extraction is recommended as a fundamental basis for local economic growth.

(e) All of the Cross Lake Trapping Block is proposed from interim land freeze pending the adoption and implementation of the plan.

(f) The Cross Lake Trapping Block is recommended as the resource utilization area for Cross Lake. All resource utilization programs in this area should assure maximum benefit to Cross Lake residents.

(g) Local services are proposed for upgrading or development to ensure that benefits of economic activity accrue to Cross Lake.

7. RECREATION

(a) A recreation complex is proposed for Cross Island.

(b) A series of playgrounds are recommended for existing housing areas and as an integral element of all future housing.

(c) A children's summer camp is recommended for Bear Lake.

B. ADMINISTRATION

(a) A modification to the current band administration system is proposed to include Band Council Portfolios.

(b) A new administration complex and band warehouse is recommended.

(c) The claim to IR 19D is proposed as a fundamental requirement to Band development.

9. COMMUNITY INFRASTRUCTURE

(a) Community infrastructure is recommended for upgrading including water supply and delivery, fire protection, playgrounds, recreation facilities, bridge/ferry, administrative services and schools.

(b) The level of community infrastructure for Cross Lake is proposed to equal that found in other communities of similar size.

10. TRADITIONAL USES

(a) Traditional activities are viewed as significant cultural and economic elements requiring protection and enhancement.

A number of policies have been established and adopted by the Cross Lake Band Council. These policies set out the direction for the Band in aspects related to community development.

Further, specific development items are set out within Section I of this report. Section II provides the background material upon which recommendations were made.

SUMMARY OF COMMUNITY OBJECTIVES

A. PROGRAM STRUCTURE

A - Rating of Shortfalls in Standards and Conditions

B - Rating of Action Requirements to Correct Shortfalls

Program Structure Objectives	A				B			
	Critical	Severe	Moderate	Slight	Vital	Essential	Necessary	Desirable
Housing								
- construction material			x				x	
- design		x				x		
- heat efficiency		x				x		
- ease of maintenance			x				x	
Education								
- school facilities	x					x		
- training/adult education		x			x			
Employment								
- long-term strategy and opportunities		x					x	
- employment levels	x					x		
Health								
- health care availability			x				x	
Water Supply								
- water supply	x					x		
- water quality	x				x			
- distribution			x			x		
Sewerage/Waste Disposal								
- collection		x					x	
- disposal			x			x		

Program Structure Objectives	A				B			
	Critical	Severe	Moderate	Slight	Vital	Essential	Necessary	Desirable
Economic Development								
- long-term employment opportunities	x				x			
Transportation								
- road maintenance		x					x	
- bridges	x				x			
- floating docks	x				x			
- internal access system			x				x	
Recreation								
- playgrounds		x					x	
- outdoor recreation facilities	x						x	
- recreation opportunities	x				x			
- indoor recreation facilities	x				x			
Administration								
- administration complex			x				x	
Protective Services								
- fire protection	x				x			
- police service			x				x	
- rehabilitation program		x			x			
Traditional Uses								
- cultural retention				x	x			
- language protection			x		x			
Community Facilities								
- Credit Union Bank			x				x	
- Garage and Parts			x			x		
- Senior Citizens Home		x				x		
- Recreation Complex	x				x			

Program Structure Development	A				B			
	Critical	Severe	Moderate	Slight	Vital	Essential	Necessary	Desirable
Community Facilities								
- Post Office			x					x
- Cultural Centre		x					x	
- Community Hall	x					x		
- Day Care Centre			x				x	
- High School	x					x		
- Hotel and Restaurant				x				x
- Drop-in Centre				x				x
- Band Office		x				x		
- Band Material Warehouse			x				x	
- Rehabilitation Centre			x				x	
- Boys Home			x				x	
Utility Services								
- electricity				x		x		
- telephone				x			x	
- television			x					x

SUMMARY OF COMMUNITY OBJECTIVES

B. DEVELOPMENT PROGRAM REQUIREMENTS

A - Rating of shortfalls in Requirement

B - Rating of Action Requirements to Correct Shortfall

Development Program Objectives	A				B			
	Critical	Severe	Moderate	Slight	Vital	Essential	Necessary	Desirable
Hydro Development								
- mini-study board		x			x			
- food stock compensation		x			x			
- water fluctuation	x				x			
- compensation	x				x			
Housing								
- Band Housing Authority			x			x		
- Local construction material		x					x	
- Renovation		x			x			
- repair workshop		x				x		
Education								
- local education control		x				x		
- training programs	x				x			
Employment								
- maintenance of traditional employment			x			x		
- long-range government support		x			x			
Health								
- home health care education			x			x		
New Town								
- development of IR 19B	x						x	
- provision of modern services and amenities	x				x			

Development Program Objectives	A				B			
	Critical	Severe	Moderate	Slight	Vital	Essential	Necessary	Desirable
Economic Development								
- retention of traditional use option	x				x			
- community self-sufficiency	x				x			
- strengthened Mid-North Development Corp	x				x			
- mineral exploration			x				x	
- regional resource extraction program		x					x	
Community Projects								
- log lathe		x				x		
- tourist lodge			x					x
- commerical complex			x				x	
- local service industries		x			x			
- market gardening			x				x	
- hog operation				x				x
- wild game production			x				x	
- garment manufacture			x				x	
- road construction			x			x		
Land Use								
- preferential use of Cross Lake Trapping Block area	x				x			
- IR 19D	x				x			
- Lot 2		x				x		
- Land exchange		x			x			

1. Introduction

The Community of Cross Lake has undergone a number of major impacts during the past decade. These changes involve significant alteration to the traditional lifestyles of residents, sizeable hydro-electric development schemes and an exploding population base. As a result of these major changes to Cross Lake and its environs, the Cross Lake Band of Indians sought assistance through the Manitoba Northlands Agreement to complete a community planning study. This report represents the findings of this study.

1.1 LOCATION

The Community of Cross Lake is located 320 miles north of Winnipeg along the south eastern shores of Cross Lake (Map 1). Although the community is currently isolated, an all-weather access road connecting Cross Lake to Jenpeg and P.R. 373 will be completed in the fall of 1980. Composed of residents of native ancestry, the community is divided into two distinct political entities: the Cross Lake Band of Indians and the Community Council of Cross Lake. The Cross Lake Band of Indians with some 1,800 on-reserve members is the largest of the two groups. The Cross Lake Reserves consist of IR 19, 19A, 19B and 19C which total 9,283 acres (Map 2).

1.2 PURPOSE OF THE STUDY

In response to the increasing external and internal pressures created by the construction of the Jenpeg Hydro-electric Station, development of an all-weather access road, high unemployment, significant population growth and poor community infrastructure, the Cross Lake Band of Indians sought community planning assistance. The impetus for this assistance was created primarily by the terms of the Northern Flood Agreement (December 16th, 1977). This Agreement which was signed by four parties (The Northern Flood Committee Inc., Government of Canada, Province of Manitoba and Manitoba Hydro), addressed specific development and remedial measures related to the Churchill-Nelson Hydro-electric Development and set out clear community planning requirements.

Therefore, it was the Band's objective that any community planning study should be based upon Schedule "E" of the Northern Flood Agreement which states that:

> "The Community Development Plan shall serve as a policy coordinating instrument, setting forth the best-case community development scenario and joint action program for the eradification of mass poverty and mass unemployment and the improvement of the physical, social and economic conditions and transportation."

This Community Planning Study was structured to direct the long-term development of the community through the provision of a development strategy, community endorsed goals and objectives and specific development proposals and implementation recommendations.

More specifically, the Cross Lake Community Planning Study was undertaken to achieve the following oojectives:

- to examine the long-term socio-economic development needs of the community
- to determine appropriate areas for future community expansion
- to establish development requirements for the future well-being of the reserve
- to ensure resident involvement in the development of future plans and recommendations
- to examine potential application of the Northern Flood Agreement, including land exchange requirements
- to examine regional land use patterns
- to set out policies and guidelines for the future development of Cross Lake

1.3 STUDY METHODOLOGY

As a result of the requests made in 1979 by the Cross Lake Band of Indians for planning assistance, funds were released in 1979 to the Cross Lake Band to undertake a comprehensive community planning study. These funds were allocated from the Manitoba Northlands Agreement. In association with the Department of Indian Affairs, the Cross Lake Band issued a set of terms of reference for the study. In the summer of 1979, Hilderman Feir Witty and Associates were hired by the Cross Lake Band of Indians to assist them in the completion of the community planning study.

It was the Band's objective that such a community planning study should be based upon Shcedule "E" of the Northern Flood Agreement (December 16th, 1977) which states that:

> "The parties to the Agreement jointly undertake to work towards a comprehensive community development plan. . . the parties further agree to jointly undertake to facilitate and coordinate their efforts, departmental programs, financial resources, and administrative procedures within an organizational framework and planning process commensurate with the political and technical requirements of comprehensive, coordinated and effective community development planning, programming, budgeting and control."

Highway Railway

Location

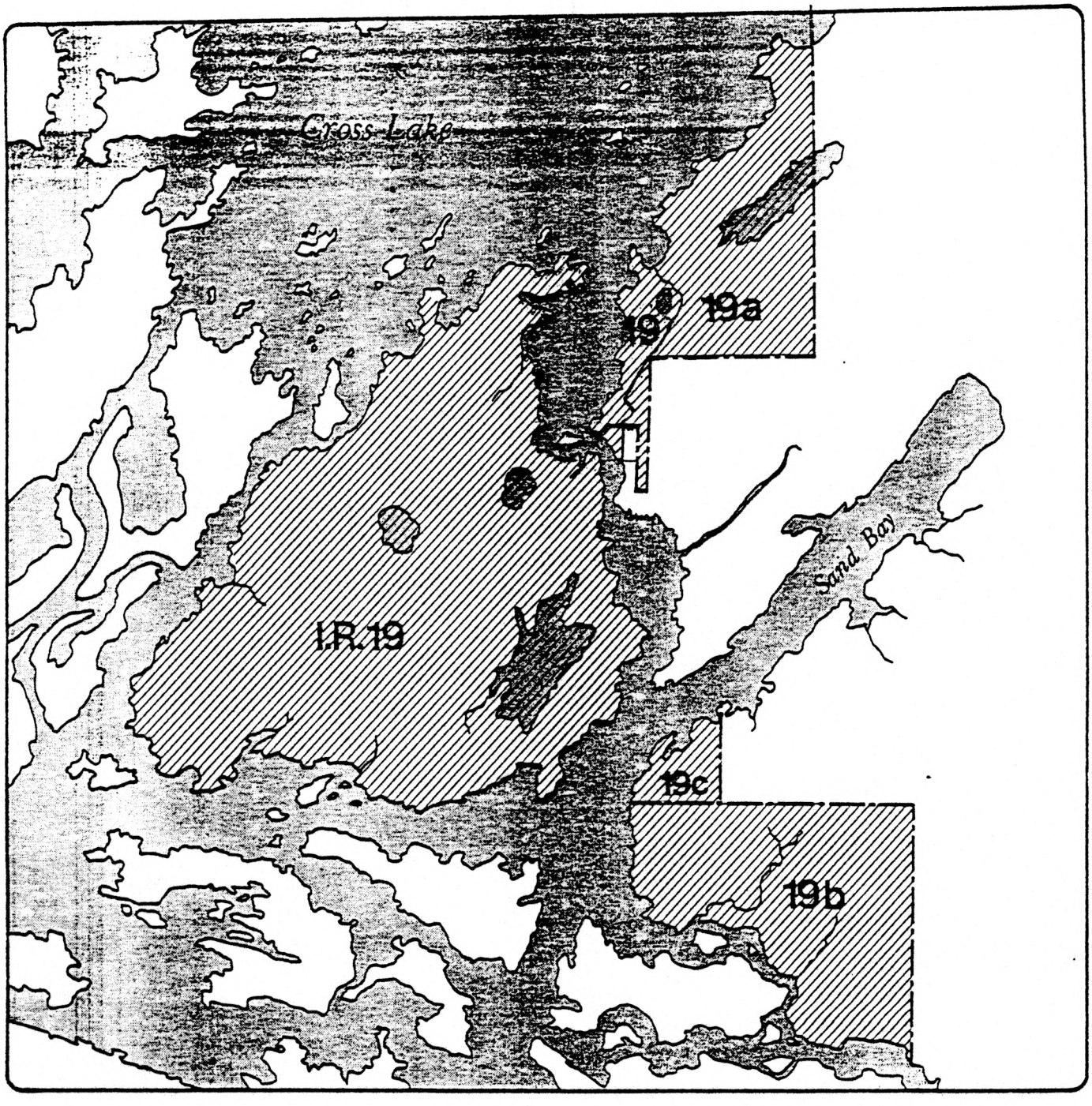
MILES 0 25 50 75 100

KILOMETRES 0 50 100

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Fer Willy
& Associates

Cross Lake Planning Study

1



I.R.'s 19, 19a, 19b, & 19c

MILES
KILOMETRES

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Fair Witty
& Associates

Cross Lake Planning Study

2

The study was divided into two major components: the proposed community development plan, and the background study. The former sets out long-term policy objectives as endorsed by the Chief and Council. Mechanisms for policy fulfillment are outlined in detail in this section.

The background study portion provides a compendium of information which affects the long-term development strategy of the community. This background data has been incorporated in the recommendations outlined for the community.

In order to fulfill the objectives set out for the community, several major steps were established. These consisted of the following:

(a) Background Information Collection

Cross Lake has received extensive study attention during the past. As a result, a prime focus for the planning study was the collection, analysis and summary of these past studies. In this way, duplication of information collection was avoided. Where data was lacking, specific research was undertaken to fill such voids.

(b) Study Direction

Study direction was provided by the Chief and Council of the Cross Lake Band of Indians. These individuals were kept informed of the study either by the consultant or the local planning coordinator. Chief and Council were designated as the decision-making authority for the study.

(c) Local Planning Coordinator

To facilitate information collection and liason between the consultant and band members, a local planning coordinator organized local meetings, collected information, provided advice, administered the community questionnaire and attended working-sessions with the consultant in Winnipeg. The local planning coordinator's office was set up as part of the Band administration function.

(d) Community Input

Band members had the opportunity to become involved in the planning study at several community meetings and workshops. The format for these meetings varied between open general meetings to nominal group theory exercises.

Band members were also provided with information from the study. Three vehicles were used. These consisted of articles in the Education Newsletter, discussion on the radio and an information display put in the Band store. The latter described the intent and interim results of the study in a coloured/mounted format.

In order to determine widespread community ideas, a community questionnaire was undertaken. This questionnaire provided the opportunity for band members to set out their thoughts on a variety of matters. The questionnaire was completed by an interviewer to ensure consistency in replies and question interpretation.

1.4 STATUS OF RECOMMENDATIONS

The recommendations put forward in this study are those of the Cross Lake Band of Indians. Throughout the course of the study, Chief and Council, with the assistance and direction given at community meetings, results of the community questionnaire and advice of the local planning coordinator approved various study steps. These approvals were given to interim reports and study presentations, as well as contractual invoices for payment of consulting services.

In addition, the Chief and Council of the Cross Lake Band of Indians adopted the following Band Council Resolution.

> "Whereas the Cross Lake Band of Indians have undertaken a community planning study, Therefore be it resolved that the Cross Lake Band Council formally adopt the objectives set out in the community Planning Study (Section 2.1)" BCR 276-600-80

2. *Community Goals and Objectives*

The basis for any long-term socio-economic and cultural development is the establishment of goals and objectives which give direction to the community development strategy.

2.1 COMMUNITY ISSUES

Two major means were utilized for determining community issues. These involved community meetings/workshops and a community questionnaire.

2.1.1 MEETING/WORKSHOP DEFINED ISSUES

During the fall of 1979 and early spring of 1980, two band member sessions were held to define community issues. The fall workshop identified the following issues in reply to two questions.

(a) List the major issues in Cross Lake

- school transportation costs
- existing poor water supply and truck delivery service
- fluctuation in lake water levels
- school construction problems
- no all-weather road
- health conditions
- current conditions
- current law enforcement
- lack of facilities
- lack of recreation
- involvement in community planning
- employment
- utilizing local human resources
- use of outside help in local road construction
- cost to use local ferry

(b) What concerns do you have for the future of Cross Lake?

- Natural Resources
  - water hampered by hydro effects:
    - commerical fishing
    - trapping
    - wildlife
  - timber destroyed by fire
  - mineral surveys

- Education
  - no technical or vocational school
  - lack of responsibility from Indian Affairs
  - no senior high school
  - need more local people trained
  - not enough counselling for Junior High

- Health
  - need qualified and dedicated nurses and doctors
  - need full time dentist
  - better medical prescriptions
  - more boarding space in hospital
  - sanitary jail conditions
  - better water delivery
  - sanitary water supply
  - garbage pick-up required

- Law Enforcement
  - for juvenile delinquents
  - less police harassment
  - training for local constables

- Housing
  - lack of housing and amount of money for new housing
  - housing material
  - presence of old buildings

- Road and Bridges
  - lack of vehicle bridge
  - lack of all-weather road
  - road maintenance

- Communication
  - postal service
  - communication equipment for trappers

2.1.2 QUESTIONNAIRE

Forty-two questionnaires were administered at different households. This represents approximately a fourteen (14) percent sample. A detailed summary of the questionnaire is enclosed (Appendix 1). This questionnaire addressed a number of items including a discussion of issues. For instance, in a response to the question of which were the most important items to the interviewee, the following responses were given.

Question 23: From the following list, check off the 5 most important items. Check 5 only.

	No. of Responses	Percent
better waste dispoal	31	15.0
access to lake	0	0.0
fire hall	15	7.3
arena	22	10.6
better roads	31	15.0
road to Jenpeg	7	3.4
better water supply	36	17.4
new playgrounds	8	3.9
new community centre complex	26	12.6
local control of resources	6	2.9
landscaping yards	4	1.9
bridges	20	9.7
	206	

This response indicated that better water supply, better roads, better waste disposal, new community centre complex and arena were the five most important items.

Another question (question 22) which dealt with the degree of importance attached to several items, revealed that better water

supply and waste disposal, better roads, new school, bridges, community college centre, firehall, playgrounds, arena, new band offices and central commerical complex were considered as being very important to important.

2.2 BAND COUNCIL ISSUES

The Band Council documented what it felt to be major issues on the reserve. These issues included:

2.2.1 LAND ENTITLEMENT AND EXCHANGE

- the selection of good quality potential land for land exchange
- resolution of the airport land transfer program
- unavailability of suitable and unencumbered Crown land
- resolution of IR 19D formerly part of the Cross Lake Reserve system

2.2.2 IMPACT OF HYDRO DEVELOPMENT

- the major impacts of Manitoba Hydro upon the community
- the major disruption to traditional use patterns caused by new seasonal water regimes
- the major impact upon water flow and water quality
- the disruption to recreational activities and free-movement upon Cross Lake

2.2.3 SERVICES

- the lack of adequate water supply and waste disposal systems

2.2.4 EMPLOYMENT

- the lack of major employment opportunities and employment diversity
- the high rate of unemployment

2.2.5 EDUCATION

- the difficulty in resolving the servicing for the new school
- the current inadequate school facilities

2.2.6 SUPPORT FUNDING

- the inability to obtain sufficient development funding support from senior levels of government

2.2.7 RECREATION

- the dearth of recreation facilities
- the requirement of an enclosed sports complex including an arena

2.2.8 DEVELOPMENT AREA

- the designation of the Cross Lake Trapping Block as a large resource-based development area
- provision of resource control and development within the purview of the band

2.2.9 CURRENT GOVERNMENT DEVELOPMENT PROGRAMS

- the continual contracting of southern or non-local based companies to undertake northern development such as road construction
- the lack of committment by government to institute native training programs on all major projects

In addition, the Band Council priorized the development items identified in the fall community meeting. The Band Council's listing of priorities was reviewed at a band meeting for feedback. The band members attending the meeting endorsed the priorities as listed.

Item	Level of Priority: Urgent	Immediate	Long-term
Vehicle bridge		x	
Credit Union/Bank			x
All-weather road		x	
Commercial complex			x
Garage and parts service			x
Old Folk's Home		x	
Recreation complex		x	
Tourist lodge			x
Water and sewer	x		
Better housing		x	
Better accommodation for Constables			x
Post Office			x
Better water delivery	x		
Better fire protection		x	
More housing repairs		x	
Recreation program for Senior Citizens			x
Better local roads		x	
Day Care facilities		x	
High School		x	
Hotel and Restaurant			x
Drop-in Centre			x
Band Material warehouse		x	
Training programs		x	
Local Utilization of Natural Resources		x	
Rehabilitation Centre			x
Boys Home			x

2.3 BAND CONCERNS AND GOALS

Based upon the preceeding community input and internal band council discussions, the council set out a series of concerns and goals for the existing community, undeveloped reserve lands and future exchange land acquisitions. Many of these concerns relate to social, economic and cultural evolution

of the community, as well as the effects of Hydro-electric development upon the community. It is these concerns and goals that form the basis for the planning recommendations.

2.3.1 IMPACT OF HYDRO DEVELOPMENT

Concern: The construction and utilization of Jenpeg Station, part of the Churchill Nelson Hydro Development Scheme, has drastically affected the water regime, levels, seasonal variations and quality of Cross Lake.

Independent biological studies are being undertaken by the Province of Manitoba and Manitoba Hydro without four party involvement or community awareness.

Goal: A special four party mini-impact assessment committee is required to determine the actual impacts to Cross Lake.

Concern: The traditional resource uses of Cross Lake such as domestic and commercial fishing and aquatic fur production have been directly affected by changing unseasonal water levels.

Goal: A remedy to the disruption of traditional use patterns should be determined.

Concern: the reduction in summer water levels has reduced domestic fishing opportunities and thus affected the availability of inexpensive nutritious local food stock.

Goal: Equivalent food stocks should be made available to replenish lost domestic fish opportunities.

2.3.2 HOUSING

Concern: existing housing is inadequate for northern needs, in terms of heat loss, design, construction material and siting.

Goal: A locally designed and produced housing product should be explored.

Concern: Current oil and electric heating costs are in excess of $200.00 during the December to March period.

Goal: A more efficient housing design and less expensive heating method is needed for new housing.

Concern: Existing housing is inflexible in design, resulting in problems of expansion to accommodate growing families. In addition, storage space is unavailable.

Goal: A more flexible design package is required to ensure that housing can respond to individual needs.

Concern: Much of the existing housing is in a state which requires major repairs.

Goal: A major maintenance program should be undertaken to repair problems before they reduce liveability of any dwelling.

Future housing should provide sounder construction techniques, reduce overcrowding and minimize repair costs.

Concern: Current housing does not meet CMHC funding requirements.

Goal: A design which permits alternative funding sources such as CMHC will be developed.

2.3.3 EDUCATION

Concern: At the present time, high school students are required to attend out-of-community schools.

The current school facilities on the reserve are less than satisfactory.

Goal: A major new school facility is required on the reserve.

Future school development should recognize the need to provide adequate recreational facilities and serve the entire population of the reserve.

Concern: Current adult education facilities are inadequate and of a makeshift quality. As a result, the viability and opportunity for adult education is less than adequate.

Goal: Adult education needs to be elevated to a major and significant component of the entire education program.

The importance of adult education to the long-term success of the community should be emphasized.

Concern: The lack of total Band control of the education program has reduced the ability of the Band to direct curricula, and programs to local satisfaction.

Goal: A Band controlled education program should be established.

2.3.4 EMPLOYMENT

Concern: Cross Lake has experienced a history of varied employment opportunities, with little long-term steady employment available for all who want to work.

Much of the employment opportunities have been of a seasonable nature.

Goal: Employment opportunities outside of the reserve should be explored as a viable alternative for band members.

Future employment opportunities should be elevated to a full-time long-term status with minimal reliance upon government grants.

Concern: Traditional employment in areas of domestic food provision, and seasonal resource activities are important employment areas which require protection.

Goal: Any employment program should preserve existing seasonal opportunities as important employment options.

Emphasis upon long-term employment should not be to the exclusion of seasonal employment.

An integrated seasonal employment program should be explored to provide year-round seasonally-based employment opportunities.

Concern: Government supported work opportunities are too often of a temporary "band-aid" type, creating long-term uncertainty. In addition, decisions on such projects are often very lengthy.

Goal: Longer term committments by government to employment and training programs need emphasis.

Increased government response to local employment/development/training requests should be established so that waiting periods for allocation approval are reduced.

Concern: Current employment rates are unacceptable.

Goal: Major emphasis should be placed upon the creation of a varied and locally-based employment strategy over the next 5 years.

Concern: The numbers of employable adults will continue to increase substantially as the high proportion of school children enter the work force.

Goal: A major employment program geared to the new young adult work force requires immediate attention.

2.3.5 HEALTH

Concern: The community has experienced continued water quality problems due to an inadequate water treatment and delivery system.

Goal: All housing should be upgraded to ensure better water storage.

The Albert Lake treatment plant should be upgraded as originally proposed in the 1977 water supply study.

Remedial action is required to reduce the adverse effects of Jenpeg control upon the water quality of Cross Lake.

Concern: housing density is often high and current liquid waste disposal is by pit privy.

Goal: all housing should be upgraded to provide for higher waste disposal standards.

Emphasis upon a community liquid waste collection system should occur in areas of high housing density.

Concern: Current illness levels and mortality rates are excessively high, particularly when such rates are compared to the entire Manitoba population.

Goal: Emphasis should continue to be placed upon increased health care, prevention programs and higher living standards.

Concern: The existing medical facilities at Cross Lake are inadequate when compared to community need and other Manitoba centres of equal size.

Professional medical servcies are far below that available in other communities of similar size.

Residents frequently must travel out of the community to receive required medical attention

Goal: A major health facility and medical service program should be instituted to upgrade local health care.

2.3.6 ECONOMIC DEVELOPMENT

Concern: The region surrounding the community has mineral potential of undetermined amount.

Goal: It is essential to the long-term well-being of Cross Lake that the surrounding natural resource potential be fully identified.

Concern: As major development projects continue to occur in the north (i.e. the 14 mile Cross Lake to Jenpeg Road connection valued at $2 million), benefits accrue too often to non-native contractors which are southern-based or temporarily northern-based.

Although Cross Lake has attempted to create meaningful alternative companies (i.e. Mid-north Development Corp Ltd.) with necessary skills and equipment, governments continue to by-pass such locally based enterprises in favour of non-localcontractors.

Meaningful native training programs are still not tied to any major contracts for such developments as road construction, and continued Manitoba-Hydro develooment.

Government agencies will be requested to develop native preference hiring and associated training programs for all projects of a development/construction/education/servicing nature in and within the vicinity of Cross Lake.

The Cross Lake Band will request that all future contracts originating from Federal and Provincial Governments for work within a 15 mile radius of Cross Lake be forwarded to locally based contractors for preference submission and hiring.

Concern: Future resource extraction benefits could accrue to outside interests

Goal: A regional resource utilization zone should be defined for the primary benefit of Cross Lake.

The Cross Lake Trapping Block should be considered as a legitimate area for any resource utilization zone. An interim development freeze should be placed upon this area plan. Government committment to a community-based resource utilization and management program should be sought.

Concern: Much of the emphasis upon resource extraction in the north appears to be at a large corporate scale.

Goal: Future resource utilization will be encouraged at a variety of scales to facilitate locally based enterprise and major corporation involvement.

The Band intends to sponsor such involvement in a direct fashion through Band-owned enterprise.

Concern: At the present time, many smaller service industries are only provided in major centres outside of the area. Benefits continue to flow out of the community to such areas.

Goal: In the future, small local service industries will be encouraged to meet local demand on the reserve.

The Band intends to sponsor such involvement in a direct fashion through Band-owned enterprise.

2.3.7 RECREATION

Concern: The community's recreation facility base is inadequate.

Goal: Future emphasis will be placed upon the creation of a strong recreation facility base to provide a higher standard of community enjoyment.

A system of community playgrounds and sports areas should be provided for children's use.

A central major recreation area should be designated for all band member use.

Concern: The Jenpeg Control Structure has adversely affected the winter hockey program by fluctuating the water levels of Cross Lake.

Goal: A new hockey arena will be sought to provide a suitable hockey program base.

Concern: Swimming is no longer as feasible in Cross Lake as it was prior to Jenpeg.

Goal: An indoor swimming facility will be required to provide a duplication of this traditional activity.

2.3.8 ADMINISTRATION

Concern: The current need to arbitrate the Northern Flood Agreement is placing financial and administrative stress upon the Band Administration.

Goal: Additional funding should be provided to ensure that the community can adequately respond to the needs of arbitration.

Goal: A new administration complex will be required to ensure that services continue to be provided at a high level.

2.3.9 NORTHERN FLOOD AGREEMENT

Concern: Cooperation appears to be absent in the implementation of the Flood Agreement. Arbitration seems the only method for such resolution.

Goal: The intent of the Agreement to provide for joint cooperation and implementation should be pursued by all parties in areas such as the Employment Task Force.

Concern: Although trustee of the Indian people the Department of Indian Affairs does not appear to be representing the interests of Cross Lake in a positive and significant manner within the Norhtern Flood Agreement parameters.

Goal: Greater responsibility for balancing the implementation process of the Northern Flood Agreement will be sought from Indian Affairs.

Concern: Some of the parties to the Northern Flood Agreement, namely Manitoba Hydro and the Province of Manitoba, have sizeable financial and manpower resources to call upon for arbitration assistance.

Goal: Consideration should be given to the provision of additional monies for the establishment of effective claim assessment within the Northern Flood Committee.

Concern: Although some remedial measures have

been undertaken within the community by the Band, the Band has often been required to await payment for such work well after completion. As a result, Band financial resources are often under stress from such activity.

Goal: More efficient remedial work payment schedules will be negotiated in future remedial work activity.

2.3.10 TRADITIONAL USES

Concern: The commercial fishing and domestic fishing operations at Cross Lake, which were historically very important as income and food generators, have been drastically affected by the alteration to natural water regimes.

Residents are no longer able to travel easily to traditional summer camps.

Goal: The possibility of an outlet control structure should be investigated to minimize current water fluctuations.

Consideration should be given to the designation of a Cross Lake Study Board under the Canada Waters Act to examine the effects of regulation.

2.3.11 CULTURE

Concern: The cultural impact upon the community has been accelerated with the development of Lake Winnipeg Regulation and its serious consequences for traditional land and water activities.

Goal: Future development should enhance, wherever possible, the traditional cultural values of the Swampy Cree people, language and heritage.

2.3.12 TRANSPORTATION

Concern: The roads within the community were upgraded by the Band during 1979.

Goal: A long-term program for road maintenance will be required to ensure that rebuilt roads remain at an acceptable standard.

Concern: During periods of extreme low water on Cross Lake, outside linkage is possible only upon chartered or scheduled aircraft. The increasing scheduled airfares are felt to be too high.

Goal: The Band Council will petition the Canadian Transport Commission to prevent excessive rates for air travel.

Concern: Cross Lake is dependent upon a ferry system for internal vehicle movement. As a result, the vehicle linkage between the community is disrupted up to 6 weeks each year during freeze-up and break-up.

Goal: The replacement of ferries with bridges will be a major focus for the Band Council.

Concern: Fuel costs are exceptionally high in Cross Lake.

Goal: The need for fuel subsidies will be stressed by the Cross Lake Band of Indians.

2.3.13 FIRE PROTECTION

Concern: The entire community is susceptible to severe fire damage caused by forest fires or local fires.

Goal: A fire protection system for the community will be developed to protect housing and residents.

2.3.14 LAND

Concern: The traditional and historic community use patterns made by Cross Lake of surrounding lands is being rapidly eroded through non-community development and resource utilization activities.

Goal: The Band Council will endeavor to retain traditional use land for Cross Lake benefit.

Concern: IR 19D was never transferred to the Cross Lake Band of Indians, although the Band has legal right to same.

Goal: The Band Council will seek full rights to IR 19D.

2.4 PROPOSED POLICIES

The following items have been adopted by the Cross Lake Band of Indians (B.C.R. #276-600) as specific policies which the Band intends to implement over time.

2.4.1 HYDRO DEVELOPMENT

(a) The Band will petition the Government of Canada through the Canada Water Act to undertake a Study Board type of examination of the impacts of Lake Winnipeg Regulation upon Cross Lake.

(b) The Band will seek additional and special compensation for the adverse affects of Lake Winnipeg Regulation upon traditional land and water use activities.

(c) The Band will request that the impact of a control weir be examined at the outlet of Cross Lake in order to better control water levels.

2.4.2 HOUSING

(a) The Band will undertake its own housing construction program using local logging

materials.

(b) Future housing constructed by the Band will be designed to meet northern living requirements, provide for expansion, adequate storage and meet CMHC needs.

(c) Home heating will be re-examined with consideration given to oil/wood combination forced air furnaces.

(d) A housing renovation program will be established as a year round program to complement new housing construction so that housing crews will be assured of long-term employment.

(e) A Housing Authority will be designated to control all housing construction, renovation, allotment and rentals.

(f) A housing renovation manager will be appointed to oversee the coordination of all home repairs.

(g) Where possible, federal assistance programs such as R.R.A.P. will be utilized to assist in home repair.

(h) An elderly persons residence will be constructed.

(i) A housing repair workshop will be set up to provide small repair skills to residents.

2.4.3 EDUCATION

(a) The Band will continue to push for speedy construction of the new school.

(b) The Band will continue to seek local control of education.

(c) Adult education will be given prominent priority by the Education Committee.

(d) Training programs will be considered a fundamental element of any new development in the community.

2.4.4 EMPLOYMENT

(a) The Band will emphasize the development of long-term employment opportunities while ensuring that traditional employment activities remain as alternative employment areas.

(b) An integrated seasonal employment program will be developed to provide year-round seasonal employment opportunities.

(c) An employment officer will be appointed to work with Chief and Council to set out employment programs, coordinate funding and examine needs.

(d) Employment and training will continue to be emphasized as major compatible and desirable programs.

(e) The Band will continue to petition the senior governments to develop long-term funding programs which can be assessed and granted in a reasonable time frame.

(f) Emphasis will be placed upon the creation of a varied employment base to attempt to reduce existing unemployment levels.

2.4.5 HEALTH

(a) The Band will continue its efforts to upgrade the water supply for band housing by petitioning the Department of Indian Affairs to fully implement the 1977 water supply study.

(b) The Band will seek to develop a new fully serviced community area which will increase healthful living conditions.

(c) Effort will be directed at improving the water quality of Cross Lake.

(d) Consideration will be given to providing for a more sanitary sewage disposal system.

(e) The Band will seek to have the existing health facilities and programs in the community upgraded to levels found throughout Manitoba in communities of comparable size.

2.4.6 ECONOMIC DEVELOPMENT

(a) The Band will pursue the concept of economic development which is coordinated by and on behalf of the Cross Lake Band of Indians through Band controlled enterprises.

(b) The development of a regional resource extraction program will be pursued by the Band.

(c) The Band will seek to determine the potential of mineral development on the reserve.

(d) The Band will continue to stress the need for Federal and Provincial Governments to give preference hiring to Cross Lake based contractors.

(e) The concept of designating a community-centred and controlled regional resource use area will be discussed with the Province of Manitoba. This area will be the Cross Lake Registered Trapline.

(f) The Band will endeavor, wherever possible, to become self-sufficient in a variety of

locally resource supported products such as construction material, some foods and heating supplies.

(g) Current dollar export for services and finished products will be reduced through emphasis upon locally established service and product industry.

(h) The Band will further explore the feasibility of a band-owned tourist lodge on the Minago River.

2.4.7 RECREATION

(a) The Band will continue its efforts to impress upon the Province of Manitoba and Manitoba Hydro that Lake Winnipeg Regulation has seriously affected recreational activities at Cross Lake, including skating/hockey, swimming, recreational fishing and traditional summer camp activities.

(b) The Band will ensure that recreation facility development is a component of future housing development.

(c) The Band will continue to pressure the senior governments for support of a recreation complex and recognition that other communities in Manitoba of similar size have significantly greater recreation infrastructure.

(d) A children's summer camp will be constructed at Bear Lake.

2.4.8 ADMINISTRATION

(a) In order for the Chief and Council to respond to community needs, a new administration complex will be constructed.

(b) The Band will petition the other three parties to the Northern Flood Agreement so that these parties will provide greater financial assistance for arbitration and studies.

2.4.9 NORTHERN FLOOD AGREEMENT

(a) The intent of the Northern Flood Agreement will continue to be pursued.

(b) The Band will put forward a case that the affected parties are at a severe financial and administrative disadvantage in dealing with the Province of Manitoba and Manitoba Hydro in arbitration.

2.4.10 TRADITIONAL USES

(a) The Band will continue to emphasize the need to protect traditional use activities for band member participation.

(b) The Band will promote the study of the feasibility of a control structure at the outlet of Cross Lake.

2.4.11 TRANSPORTATION

(a) The existing ferry system between IR 19 and IR 19A will be replaced by a bridge.

(b) A local road maintenance program will be instituted.

(c) The Federal and Provincial Governments will be petitioned to develop a northern fuel policy.

2.4.12 PROTECTION SERVICES

(a) The Provision of a community fire break will be explored.

(b) The need to better protect hydro installations to and within the community will be explored.

(c) A community fire protection service and fire hall will be developed.

(d) A permanent police force with increased native content will be requested.

(e) In community rehabilitation will be sought

2.4.13 COMMUNITY VALUES

(a) Cultural values will continuously be emphasized in all development undertakings

1(b) A landscaping program will be provided for all developed areas.

(c) The concept of family housing clusters will continue to be encouraged.

(d) A day care facility will be provided.

2.4.14 LAND

(a) The Cross Lake Trapping Block will be sought as the basis for the designation of a Cross Lake resource utilization area.

(b) IR 19D will be resolved to the benefit of the Cross Lake Band of Indians.

(c) An interim land use freeze for the Cross Lake Trapping Block will be sought by the Cross Lake Band.

3. *Development Strategy*

The Cross Lake Band of Indians has an opportunity to significantly alter its past development trend by combining the development program of the Cross Lake Band of Indians with the terms of the Northern Flood Agreement. Through such a combination, future development can become a positive and forceful means of redirecting energies towards positive community growth.

3.1 PROPOSED STRATEGY GUIDELINES

The following guidelines set out the emphasis and considerations for the long-term development of the Cross Lake Band of Indians.

- the Northern Flood Agreement will form the basis for all future community compensation for the severe impacts from hydro development.
- the opportunity for Cross Lake to achieve a level of standard of living similar to other communities of equivalent size will be viewed to rest primarily within the Northern Flood Agreement.
- emphasis will be placed upon the provision of internal community infrastructure requirements such as educational, recreational, health, cultural and administrative facilities.
- emphasis will be placed upon the upgrading of individual living standards in recognition of the fact that long-term economic growth is not possible without satisfying everday living requirements. Included in any such upgrading are aspects such as better housing, running water, free time activity outlets.
- the traditional use of surrounding lands will continue to be emphasized through the exploration and development of the natural resource extraction industries.
- government will need to become fully committed to the concept of preference hiring of locally based contractors.
- all development programs of a government nature will need to have on the job native training as a regular element.
- where possible, private enterprise development will be encouraged to incorporate native training programs.
- where possible, the community will become self-sufficient in some aspects such as housing construction material.
- development opportunities will emphasize the use of local band member skills through training, upgrading and hiring.
- reliance upon government sponsored general grant programs will be considered as a source of assistance secondary to the Northern Flood Agreement.
- economic development must be viewed as being directly related to social issues and needs.
- where possible, private business development will be encouraged to stimulate local economic growth, but emphasis will continue to be placed upon Band-owned, managed and stimulated economic development.

3.2 PROPOSED DEVELOPMENT STRATEGY

The focus of the Cross Lake Development Strategy is an attempt to integrate local traditional skills with local and regional development opportunities while recognizing the need for emphasis upon community infrastructure development. As a result, the strategy puts forward the notion that the forces of economic development and satisfying living conditions are intertwined. Without each, neither is possible. In order to achieve these two major thrusts, the strategy should be viewed in a number of interrelated sub-parts.

3.2.1 COMMUNITY REVITALIZATION

One major sub-part of the strategy relates to the need for the significant community revitalization. As is the case for most northern non-resource based communities, the standard of living in Cross Lake has slipped as modern technology has been introduced in partial untested form. As a result, many residents have gained the disadvantages of semi-urban living while losing all of the advantages of rural land-based living.

In addition, the effects of Lake Winnipeg regulation have been severe upon those remaining advantages of traditional lifestyles.

In an effort to provide those aspects of modern community living which are of benefit to Cross Lake residents, an entire community revitalization effort will be required. In this way, the advantages of semi-urban living will accrue to Cross Lake while the current disadvantages will be minimized. Such revitalization relates to community infrastructure upgrading and increased living standards. As a result, emphasis has been placed upon the need to provide basic living amenities such as new and refurbished housing, better water supply and waste disposal, recreation facilities and an upgraded education program.

3.2.2 STRENGTHENED ECONOMIC OPPORTUNITIES AND EMPLOYMENT BASE

It is essential that Cross Lake move toward

increased employment levels. Without increased employment, it will be difficult to provide the necessary basic essentials for a higher standard of living. Within this plan, several alternative employment sources are proposed. Although no final solutions to the complex problem can be provided in a document of this type, an attempt to relate the aspirations of the people with the economic potentials in the community and region has been made. In this way, Cross Lake Band members can make a logical choice for the future direction of the community. It must be stressed, however, that large employment expansion will be most difficult unless total community effort is directed in this area. Clearly, the lack of on-reserve development has created a weak economic base, which, in turn, has caused a misuse or non-use of human resources. Through emphasis upon the use of local skills, upgrading and preference hiring, the plan proposes a wide variety of economic and service development to create a strong community infrastructure. This infrastructure will ensure a higher living standard which will, in itself, create a "climate" for human resource development.

With a stronger community base and human resource skills, efforts can be directed towards the development of a diversified and meaningful economic base. This process is cyclic and growth oriented. Without a solid foundation and appropriate use of human skills, however, much of the opportunities for long-term benefit will be lost. In association with this program is the need to define local resource potential to provide job diversity and a more solid economic base. The plan recognizes this fundamental interrelationship and attempts to link natural resource potential with local skills to form a strong bond between economic development and the employment base.

3.2.3 ON-RESERVE SELF-SUFFICIENCY

Although it is impractical to expect the reserve to provide for all the needs of its residents, nevertheless, emphasis should be placed upon the retention of dollars within the reserve. In this way, greater benefit to all band members will likely result as spin-off jobs and opportunities occur. Therefore, the plan attempts to identify local business opportunities and enterprises which can be developed as entirely band operated or band member run and supported industries. In most cases, the Band controlled Mid-North Development Corp is viewed as the prime vehicle for community development and construction coordination.

3.2.4 REGIONAL DEVELOPMENT AREA

Cross Lake has traditionally relied upon the region for its resource support needs such as food supply, materials and clothing. Although the nature of this reliance has altered over time, the dependence of Cross Lake upon the region's resources has continued. It is the ability of Cross Lake to utilize this surrounding region as a fundamental component of its economic base that offers hope for future employment. This resource development hinterland is similar to the trading hinterlands of southern Manitoba except for the nature of the relationship. This plan calls for a resource hinterland which will supply Cross Lake with the resource base necessary to create its own economic base. In other words, the movement of natural resource materials from the hinterland would be into, rather than out of, the community.

In addition, Cross Lake is centrally located within north central Manitoba. As a result, it can play a service and supply role within the region to communities such as Norway House, Oxford House and Wabowden. By establishing specific market functions, such as log lathe export, Cross Lake can tap the surrounding community market and supply required goods to other communities. Although Cross Lake will not be able to compete in all areas, a specialized regional supply role can be developed from Cross Lake.

3.2.5 PROGRAMME INTERPRETATION

If these areas of development strategy are to be achieved, a concerted effort will be required between the band administration, band council, government agencies and private business. Unless a long-term capital development programme can be established and more importantly implemented, these fundamental development strategy percepts will remain an illusive goal. Yet, unless these strategies are achieved, Cross Lake can not expect to close the living standard and economic gap between itself and other major Manitoba communities. In recognition of this critical need to integrate development programmes, the plan sets out a procedure for programme implementation and coordination.

3.2.6 GOVERNMENT COMMITTMENT

Unless full government committment is displayed in terms of action and funding for this strategy, then, much of the opportunity for community self-growth will be lost. Government agencies at all levels must be committed to the concept of preference hiring for local contractors and staff. No longer can the import of southern labour and contractors be tolerated in the region. Human skills and resources do exist. Government must

respond by ensuring that such resources are adequately trained and utilized. It is inconceivable that locally based self-initiated companies continue to be by-passed in favour of non-local companies. Although local costs may be higher in the short-term, long-term benefits will far outweight such costs in the future.

3.2.7 TRAINING

It is crucial to the long-term success of any development programs that training be included to ensure that band members possess the necessary skills to manage and operate completed development. This is particularly critical for intricate facilities such as infrastructure operation and maintenance, including arena and sewer and water installations. Thus, band members must be involved in facility development so that the community has local expertise in the proper repair and maintenance of such structures.

Training is also required in a variety of specialized skill areas so that the community has available to local people who are capable of providing skills in band administration, construction, service industries and education. Emphasis upon the identification of training programs for all local and regional development should become a high priority and integral element of all development efforts.

3.2.8 OPERATION AND MAINTENANCE

In order for Cross Lake to bridge the socio/economic gap between its existing community base and its potential future base, funds will be required not only for development, but also long-term operation and maintenance (O & M). Without adequate O & M funding, any new development programs will suffer. Thus, it is essential that future capital funding also provide required O & M support funds.

4. Recommendations

The future of Cross Lake is directly related to the resolution of detrimental impacts created by the unnatural flow of water levels on Cross Lake. Unless these impacts are resolved, the community will continue to be faced with the difficulty of everyday sustenance and acceptable living conditions.

4.1 FUTURE RESERVE DEVELOPMENT

The current development program for the reserve (19 and 19A) has been one of continuing with the same, adding to existing or modifying current buildings. Lack of fiscal and human skill resources has not permitted any other alternative. As a result, the community has tended to grow in random direction along the riverbanks. Such development has created a community of very low density, strung out in a narrow ribbon between road and river. Since the modern conveniences of community living (recreation facilities, community focal point, sewer and water) have not been available, no other option was desirable.

In the future, however, Cross Lake is intent upon proceeding in a new alternative direction. No longer can the residents depend upon the flows of the Nelson River to provide reliable and safe water supply, transportation route and food sources. As a result, the Cross Lake Band of Indians will develop IR 19B and C for a future townsite where necessary amenities can be provided (Plan 1). This concept calls for a fully serviced community which includes residential, commercial, institutional, recreational and industrial lands. Since the traditional use of the Nelson River has been seriously affected such a new area will provide an alternative substitute.

Such a concept does not envision the abandonment of existing developed areas. Rather, future residents will be provided a choice between existing areas and the new townsite.

Within the existing developed areas, however, major upgrading will be essential to adequately provide for the needs of the residents. (Plan 2)

At the same time, considerable emphasis must be placed upon the provision of economic development opportunities. Until economic development is encouraged, employment options will be minimal and unemployment will continue to be at excessive levels.

4.1.2 DEVELOPMENT RECOMMENDATIONS

The following development proposals provide an outline of the steps which the Cross Lake Band of Indians intends to follow in the future development of Cross Lake.

(a) Town Centre

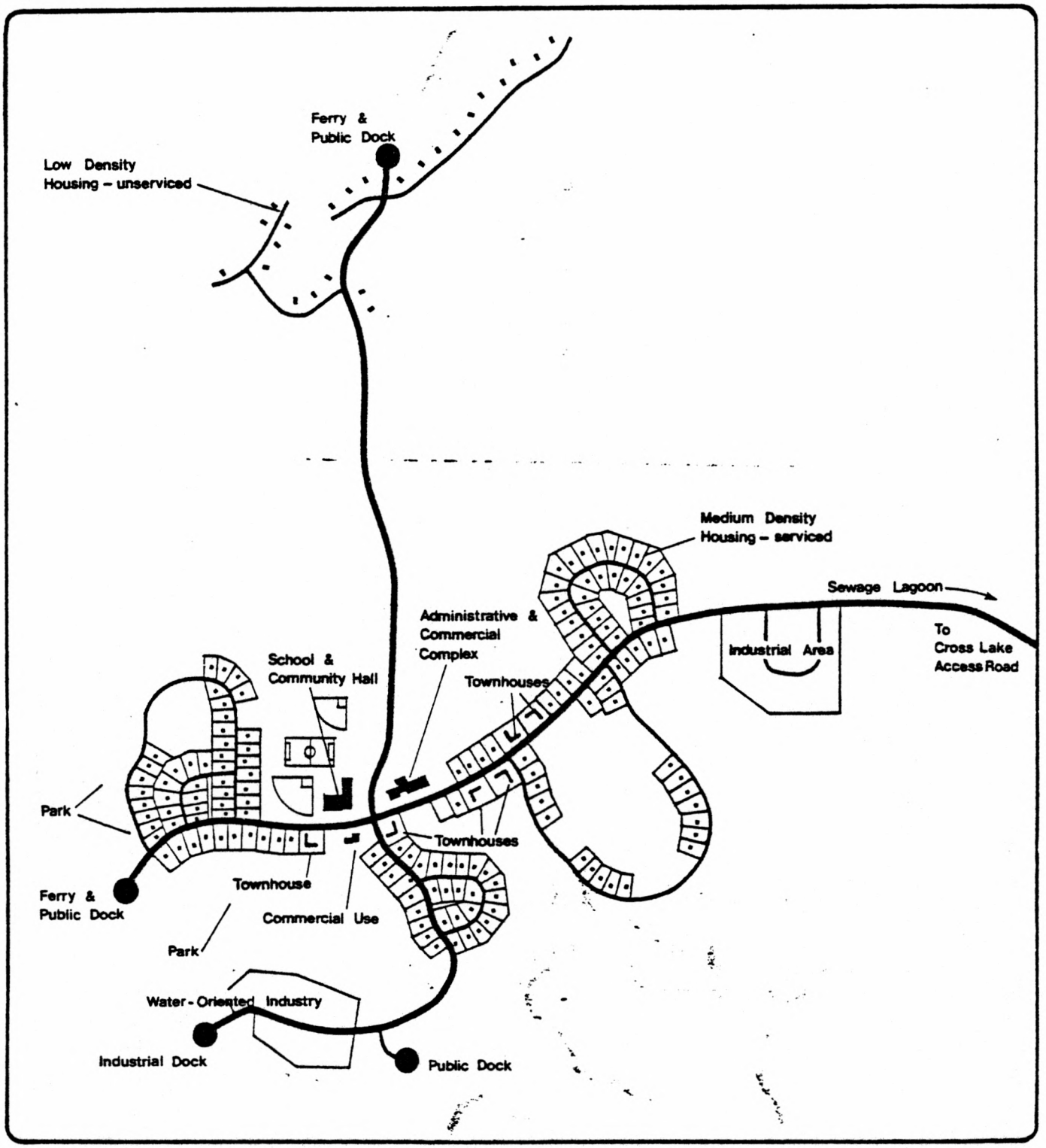
The Town centre complex and adjacent development area will provide Cross Lake with the basic community amenities found in other Manitoba centres of comparable size.

- a new town centre should be located on IR 19B
- the new town centre should act as a focus for the provision of fully serviced residential areas
- industrial, institutional and recreational facilities should be encouraged at the town centre
- a new band operated commercial complex should be located in the town centre
- the town centre and related development should be serviced by sewer and water
- the concept for the town centre and related development should be one where Cross Lake should have available to its residents amenities considered basic to northern non-native communities.

Although new townsite development does not meet the traditional lifestyle patterns of the Cross Lake people, the severe alteration to the Cross Lake water body requires major remedial measures to offset severe community disruption. Cross Lake was traditionally the focus for all residents. It was the water source, food source and transportation route.

Thus, linear scattered unserviced housing was located along the lake shore. Jenpeg control does not permit the continuation of such a development trend for large numbers of residents. Rather, an alternative living environment is required. For this reason a new townsite area has been proposed to accommodate new major growth. IR 19B was selected because:

- it contains large expanses of land capable of supporting such development and associated infrastructure



Plan 1

Proposed New Townsite

FEET 0 500 1000

METRES 0 100 200 300

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Feir Witty
& Associates

1 Causeway & Bridge
2 Fire Hall
3 Senior Citizens Home
4 Day Care Facility
5 Cultural Centre
6 Upgrade Recreation Facilities
7 Band Warehouse

FEET 0 500 1000
METRES 0 300

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Farr Witty
& Associates

Proposed Development

Cross Lake Planning Study

Plan 2

- it is adjacent to Cross Lake but not dependent upon it for water supply or individual transportation.

- it has access to high quality water supply at Egg Lake and Bear Lake

- it can be adequately serviced with waste treatment facilities

- it is readily accessible to the new Cross Lake access road

- it can provide a fully serviced and amenity rich community while retaining large amounts of open space.

(b) Housing

Cross Lake residents are inadequately and under-housed. Due to the insufficient housing allottment provided the band, new housing is of a minimum acceptable standard. Such new housing is often too small, inadequately insulated and designed and constructed from pre-fabricated material manufactured outside the community. An entirely new approach to housing is necessary if Cross Lake residents are to reach a standard of living accepted as a basic right in the resource centres of the north and the communities of southern Manitoba.

- housing development should continue to be located througout the community

- where servicing is not available, high density housing should be avoided so that fire hazards and health problems are not accelerated

- the traditional close association between housing and the lake should no longer be the major determinant in housing location since the lake and rivers regime has been drastically altered

- the traditional linear housing pattern should be eventually replaced with greater clustering of residences when services become available

- a major housing construction program should be required to meet the major demands of the future as young adults require separate accommodation

- the band operated housing program should begin with two basic housing types with two design modifications for each so that a choice of four housing layouts will be possible. By year five, two additional designs will be available.

- the band attempt to directly relate housing to alternative funding requirements such as CMHC to provide flexibility in housing starts and programs.

- Cross Lake will develop its own housing program utilizing local materials and skills, providing construction on a year-round basis

- housing will be designed for Cross Lake circumstances with a view to reducing heat loss, providing adequate storage space and reflecting the need for larger bedroom space

- A Band Housing Authority will be given expanded terms of reference to permit greater local involvement in housing design, construction, allotment and maintenance.

More specifically, housing redevelopment and design should include the following:

(i) Existing Housing

- evaluate each house on the basis of structural quality

- determine those houses which are suitable for upgrading

- within houses suitable for upgrading provide running water and sewer system through the use of either wells or major holding tanks and waste disposal fields or holding tanks

(ii) New Housing

- using log lathe system provide new housing with running water and waste disposal holding tanks or field system

- provide architectural designs for log lathe housing in order to reduce heat loss and provide for efficient low cost housing operation

- a townhouse design will be considered for the new town area to provide accommodation to young couples, single unmarried adults and elderly couples if they so desire such accommodation

- any designs will be undertaken with resident consultation

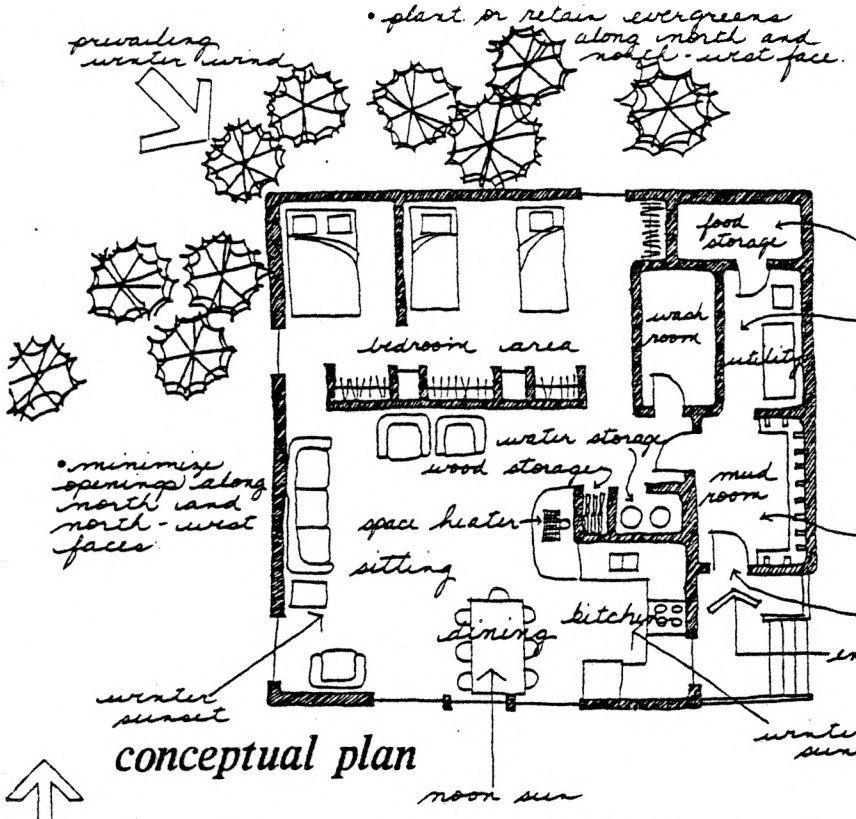
(iii) Band Housing Authority

- through a Band Housing Authority provide non-profit housing

- the log lathe operation should be managed by the Band Housing Authority

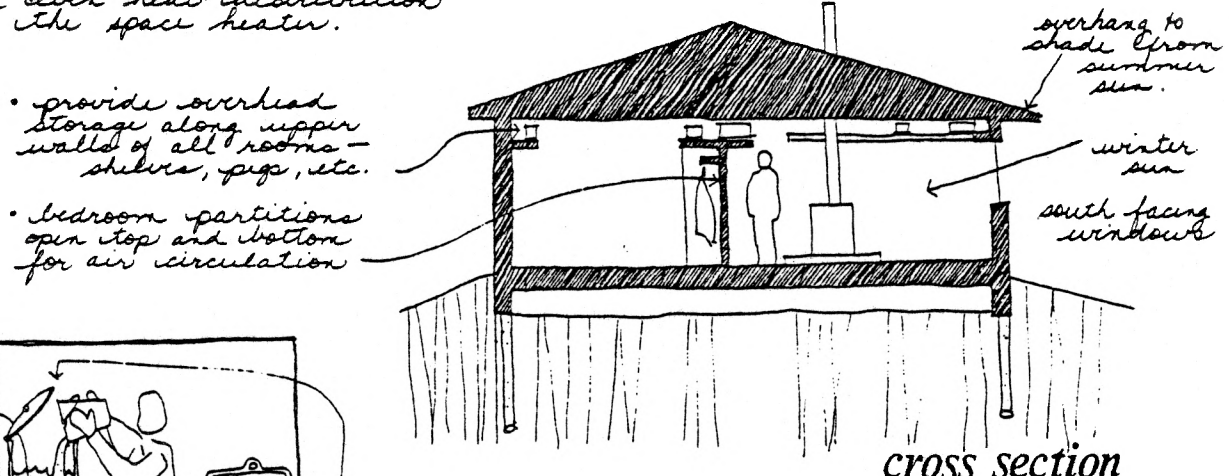
Housing Design

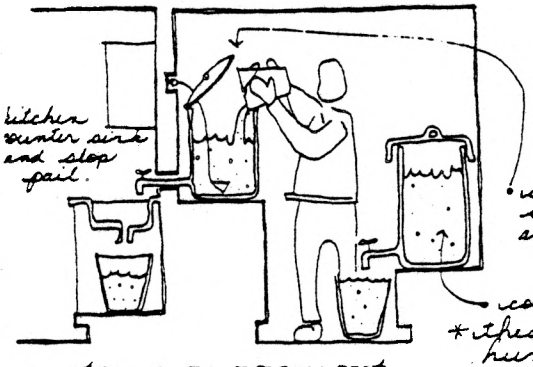
orientation



- keep major openings facing south.
- locate bedrooms and storage on north side.
- place major living spaces along south side.
- combine living, dining and kitchen in one large space.

* modify room layouts to provide more even heat distribution from the space heater.

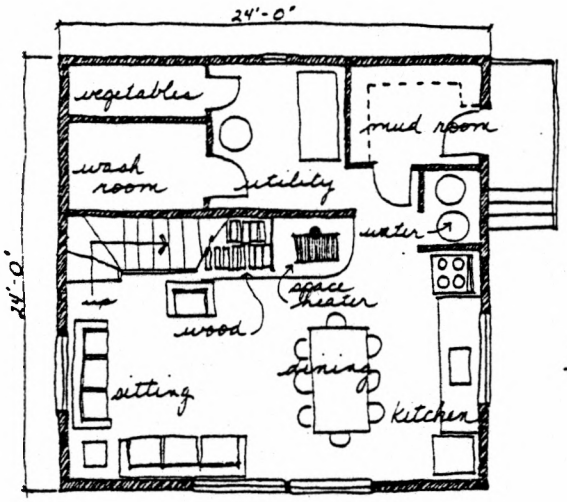


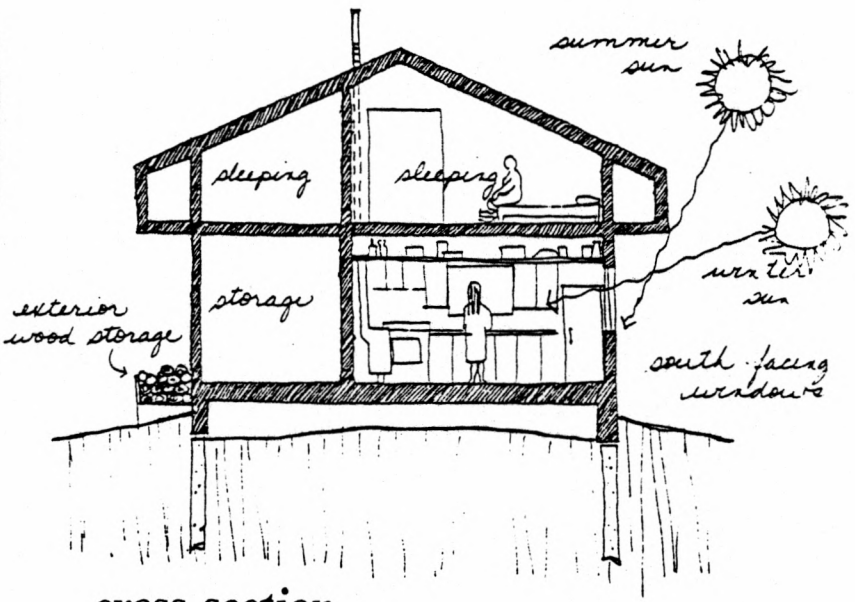


source: Sampson • H. F. W.
"Red Earth Saskatoon Housing Study"

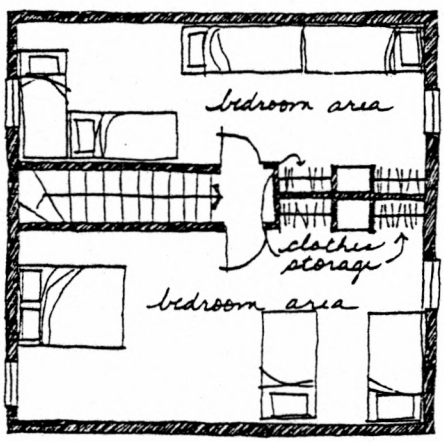
Housing Design

main floor

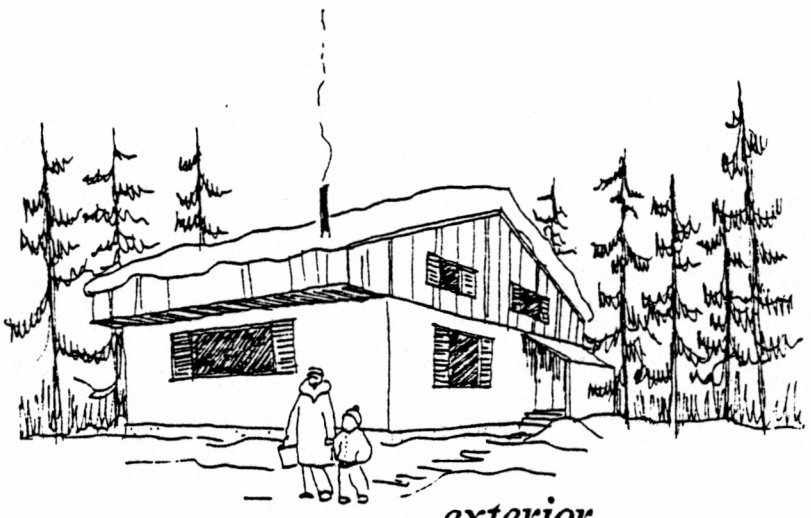




cross section



upper floor

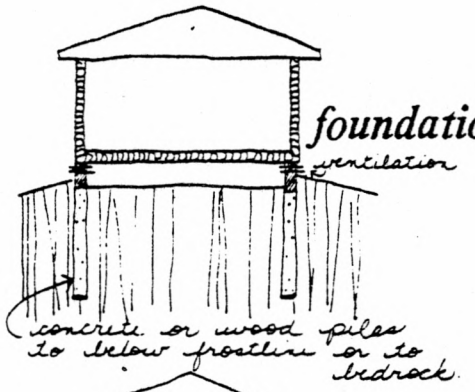


exterior

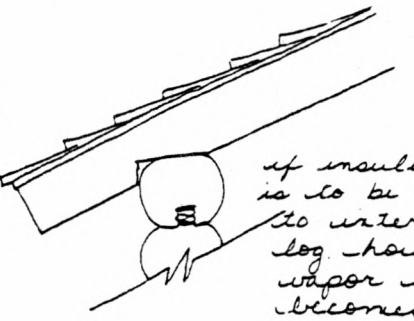
source: Sampson + HFW "Red Earth Innovative Housing Study"

Housing Contruction

foundation alternatives

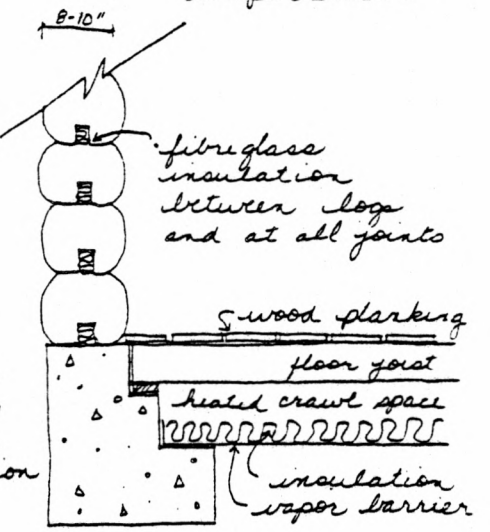


- possible solutions to the problems of foundation cracking, sagging floors, and moisture build up



if insulation is to be added to interior of log house, the vapor barrier becomes very important.

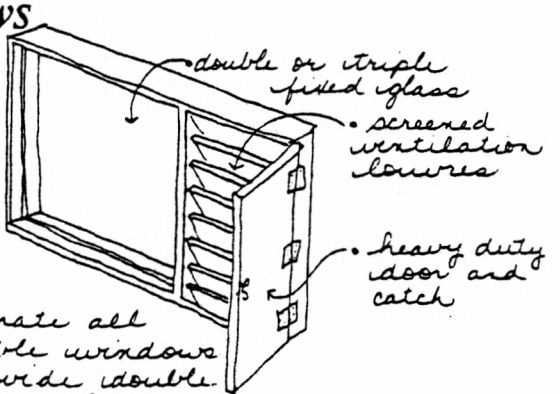
log lathe



* cantilever steps and landings off foundation walls to prevent sagging.

min. 10" concrete foundation

windows



- eliminate all moveable windows and provide double or triple glazing in heavy duty frame with ventilation panel.

* provide epoxy flooring, heavy linoleum or wood planking on floors in place of vinyl asbestos floor tiles.

* provide covered hot water containers with electric immersion heaters.

* use low maintenance, durable finishes on interior and exterior walls. Use stain instead of paint.

- for entrances utilize heavy duty insulated doors and frames, complete with extra sturdy hardware; eliminate storm doors.

provide information and orientation courses for new home owners, dealing with house operations and maintenance, liability and responsibility.

PROPOSED CAPITAL HOUSING PROGRAM (1980 DOLLARS)

Year	Item (in 000's)	Cost	Source
1981-82	10 units @ $12.0/unit	$120.0	Capital Housing Grant
	10 units @ $18.0/unit	180.0	Capital Housing Grant
			(Shortfall of $60.00)**
1982-83	5 units @ $12.0/unit	60.0	Capital Housing Grant
	10 units @ $18.0/unit	180.0	Capital Housing Grant
	5 units @ $25.0/unit	120.0	Shortfall**
1983-84	5 units @ $12.0/unit	60.0	Capital Housing Grant
	10 units @ $18.0/unit	180.0	Capital Housing Grant
	7 units @ $24.0/unit	168.0	Shortfall**
1984-85	10 units @ $18.0/unit	180.0	Capital Housing Grant
	*10 units @ $24.0/unit	240.0	Capital Housing Grant
	2 units @ $36.0/unit	72.0	(Shortfall** 252.0)
1985-86	5 units @ $18.0/unit	90.0	Capital Housing Grant
	*14 units @ $24.0/unit	336.0	Capital Housing Grant
	* 5 units @ $36.0/unit	180.0	(Shortfall** 366.0)

* To be constructed at New Town area
**Possibly CMHC funded

PROPOSED HOUSING PROGRAM

Year	Total New* Housing Required	Minor Renovations	Major Renovations	Total All Houses
1981	20	15	20	55
1982	20	15	20	55
1983	22	30	30	82
1984	22	30	30	82
1985	24	40	20	84
1986	24	40	15	79
1987	20	20	15	55
1988	20	20	10	50
1999	18	10	10	38
1990	18	10	5	33
1991	16	10	5	31

*8ased upon current housing shortfall of 67 units, family formation and estimated replacement of 5 new homes each year

- all architectural studies and servicing studies should be coordinated by the Band Housing Authority

- material sold from the log lathe operation for other building construction or export should be at a profit for return to the Band Housing Authority housing construction program. In this way, housing designs can be improved while keeping band costs down.

- the Authority must develop a housing policy which sets out responsibility for future repairs, develops criteria for housing allocation, sets out a program for elderly and young couples' housing

- the Authority should explore and establish a housing program with CMHC as an alternative funding source

(c) Servicing

At the present time, Cross Lake residents are dependent upon a system of water delivery which is inadequate for the population base. Water supply is difficult to maintain, as is water quality. Waste disposal is totally unacceptable for population densitites that exist in many portions of the community. In all other non-native centres in Manitoba of equivalent size, water supply and waste disposal is by modern reliable means.

- the future town centre and associated development of IR 19B should be serviced by sewer and water as is currently found in other Manitoba communities.

- existing development throughout the remainder of the reserve should be serviced by either individual or group wells and septic fields, upgraded water delivery and waste disposal (holding tanks) or sewer and water lines. The particular type of infrastructure will be dependent upon the location and density of housing, accessibility and terrain conditions.

- garbage collection should be provided on a regular weekly basis from garbage containers which are designated to resist dog nuisance.

- Bear or Egg Lake should be examined as the water supply source for the new town

(d) Education

At the time of writing, a new federal high school was to receive final approval and funding for construction in 1980-81. This new school will greatly supplement the existing education program. Even so, educational requirements will continue to expand as the rapidly increasing school age population moves through the school system. The proposed new school may be at capacity two years after completion. In addition, the demand and need for locally provided adult education will continue to spiral.

(e) Proposed Education Curricula

High School Curricula

- technical skill training in small motor mechanics, building trades, land development (surveying, service installation, road construction), plumbing, electrical trades,

- traditional use skills such as domestic net fishing, trapping

- management and administrative skills such as secretarial, bookkeeping, accounting, office management, organization procedure

- resource use skills including wildlife and fisheries management, timber cruising and evaluation, mining exploration and development

Adult Education Curricula

- technical skill training in small motor mechanics, building trades, land development (surveying, service installation, road construction), plumbing, electrical trades,

- management and administrative skills such as secretarial, bookkeeping, accounting, office management, organization procedure

- resource use skills including wildlife and fisheries management, timber cruising and evaluation, mining exploration and development

- skill training in tourism services, commercial/retail sales management, business management

- the new Federal high school should be constructed on Cross Island (IR 19)

- the existing temporary education facilities should be replaced by a series of new elementary schools, beginning in 1985 so that the new

Federal school can be converted to a high school only program over the years

- adult education programs should be stressed as an essential component of the community education system

- high school skills should encompass opportunities available in the community or region

- adult education workshop sessions should proceed the development phase of any project to identify residents' interests in such a proposal, training available and required, and a necessary training program to ensure adequate resident employment participation

- local education control should be a prime concern for the community

- cultural programs should remain an essential component of the Cross Lake education system

(e) Health

In an attempt to further improve community health conditions, emphasis should be placed upon the provision of better housing (reduction of drafts, less crowding), better water supply and waste disposal and provision of community amenities.

- the existing high rate of respiratory ailments and disease rates should be gradually rectified as new housing stock and services are provided

- as a result of over-crowded housing, lack of available employment opportunities and minimal recreational facilities, stress has become a major health problem which should be remedied only when the living conditions of Cross Lake are appreciably altered

- with the loss in reliance upon domestic fishing opportunities, potential protein deficiencies could increase in Cross Lake and should be rectified by encouraging the production of local fresh vegetables and other food items

- an extended health care facility/ hospital is required for Cross Lake due to the high health care incidence rates, the need to transport residents out of the community and the current level of health care in other Manitoba communities of similar size.

(f) Employment

The extremely high unemployment rates at Cross Lake require major attention by all levels of government. Until employment programs can be generated which utilize local resources and skills, the current problems of unemployment will continue. To accomplish greater employment levels, an employment program should be instituted.

In order for the Band member work force (60% of all individuals between 20 - 59 years of age) to achieve a 100% level of employment, 400 job opportunities will need to be created by 1988. If the current unacceptable 36% employment level is to be maintained, 88 jobs will need to be created by 1988. The task is monumental. Even so, it is critical to the future well being of Cross Lake and its residents that government agencies become fully committed to job creation and training. Interim "make-work" solutions to unemployment are not a satisfactory means of solving the employment vacuum. Clearly, in the long-term, the costs of employment creation and training will be far less than the continual costs of social assistance, both in terms of monetary and human resource costs.

Such a program requires that cooperation exist between the levels of government. An employment strategy must emanate from such discussions to include local and regional employment opportunities.

- The band should pursue the concept of the Employment Task Force and its objectives

- An Employment Committee should be established to monitor all economic development, training programs and band needs to ensure that band members have the opportunity of fully participating in the new economic development possibilities of Cross Lake

- local industry should be encouraged to develop local resources as a more efficient and wise use of resources

(i) Local Employment Opportunities

At the present time, community servcies and infrastructure are inadequate. To provide such services and infrastructure, a wide range of employment types will be needed. As the process of service and infrastructure sector expansion continues, many employment opportunities will arise.

- the development of in-community services such as repair shops, food outlets, banking etc. should generate a great need for local resident employees

- non-resident service requirements should likely increase as road access to Cross Lake takes place

- the creation of resource-related employment should be encouraged in an attempt to produce and utilize resources within the community.

(ii) Regional Employment Opportunities

The region surrounding Cross Lake offers an excellent opportunity to potentially tap a variety of natural resources, particularly timber and minerals. Additional opportunities include tourism and traditional users. As a result of hydro impacts, however, much of the on-going traditional use activities have been substantially altered. Thus, alternative resource employment substitutes are essential.

- the mineral potential of the community and region should be tapped if marketable mineral products are found

- any resource development should only be encouraged after local training programs have provided skills needed to undertake such development

- any mineral development in the region should be supported if the operation is focused in Cross Lake, using Cross Lake skills

- a regional resource development zone should be emphasized as a requirement to long-term successful resource management by Cross Lake

- where feasible, natural resources, such as forestry, should be developed to provide community oriented products in the form of housing material, furniture manufacture, firewood

- tourism opportunities in the region should be continually monitored to determine the potential of tourism as an employment opportunity

- respect for traditional use activities will have to be shown in all major resource development programs

(g) Transportation

The community is currently fragmented due to the interspersion of the Nelson River/Cross Lake between reserve areas. As a result of extremely low water levels in recent times, access between these developed areas has become even more difficult.

- a bridge connection should be constructec between Cross Island and the mainland.

- an increased ferry system should be required between IR 19B - Cross Island and IR 19B and the Church Point

- internal roads should require continual maintenance and upgrading

(h) Recreation

The total void in adequate recreation facilities is symptomatic of the community ills in Cross Lake. Residents require increased access to a variety of facilities and opportunities. In some cases the effect of hydro development has been to severely reduce the past recreation opportunities associated with Cross Lake.

- for each cluster of 20 houses a small playground should be constructed using local materials

- two major playfields should be provided on Cross Island and at an abandoned school site on IR 19A.

- recreation complex, including an arena and swimming pool, should continue to be sought for the disruption to the use made of Cross Lake for such purposes

- a community hall/auditorium/should be provided in the recreation complex

- a system of parks and open space should be provided throughout the community and designed into the proposed town centre

- a children's summer camp should be located on Bear Lake where water regimes are isolated from hydro impact

(i) Culture

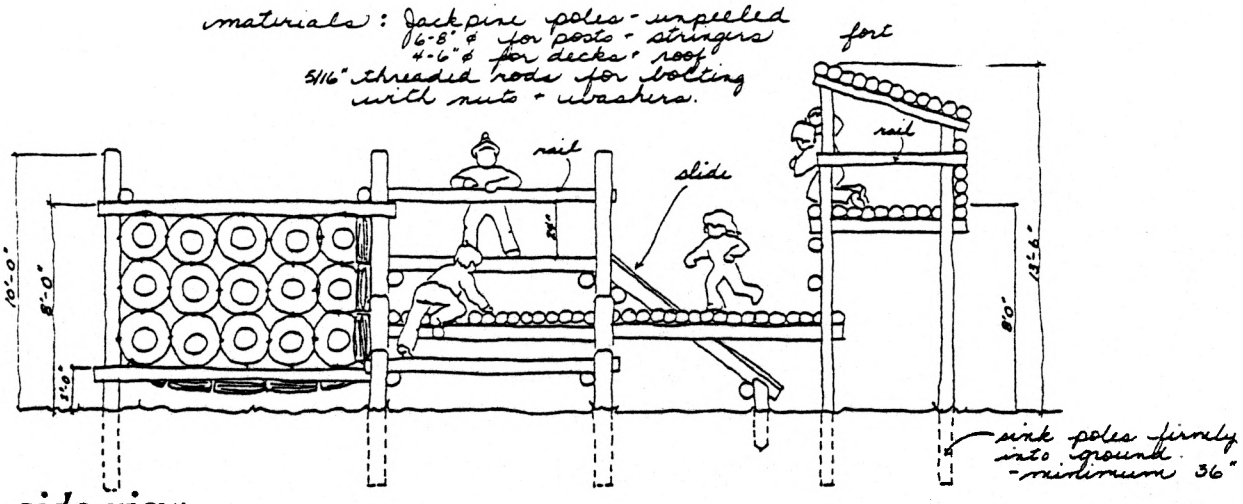
The enormous threat to the cultural values and traditions of Cross Lake by the major impacts of the hydro development program require amelioration.

- the band should emphasize cultural values and identity by seeking a cultural centre

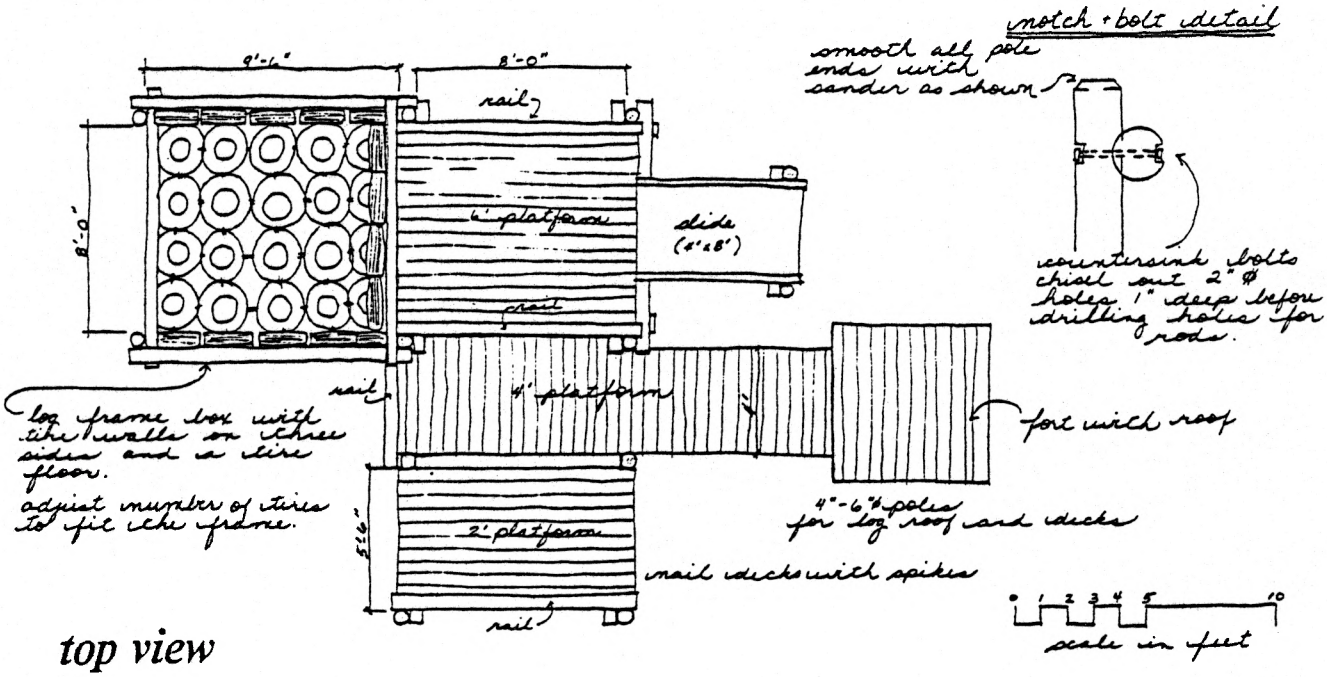
- the cultural centre should be a tra-

Playground Climbing Stucture

materials: Jackpine poles - unpeeled
6-8" ϕ for posts - stringers
4-6" ϕ for decks - roof
5/16" threaded rods for bolting with nuts + washers.



side view



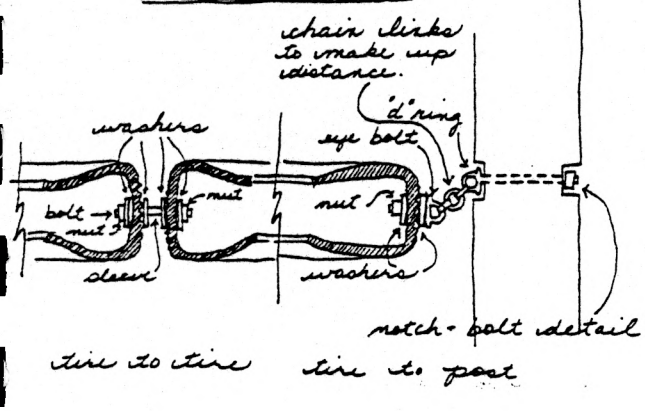
notch + bolt detail

smooth all pole ends with sander as shown

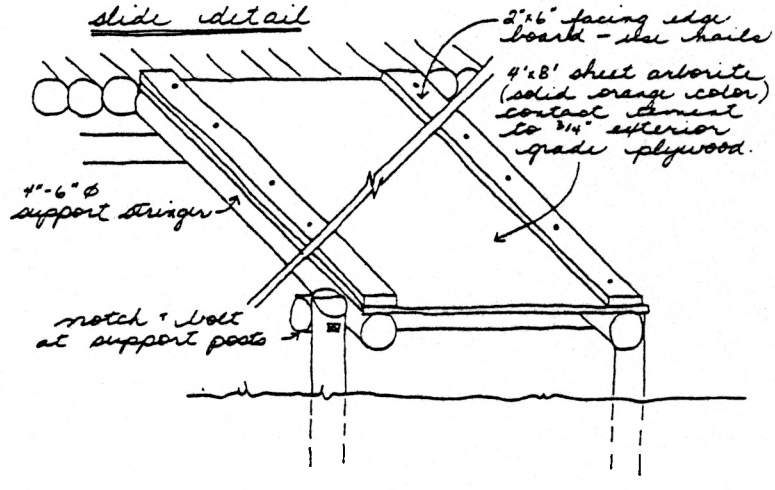
countersink bolts chisel out 2" ϕ holes 1" deep before drilling holes for rods.

top view

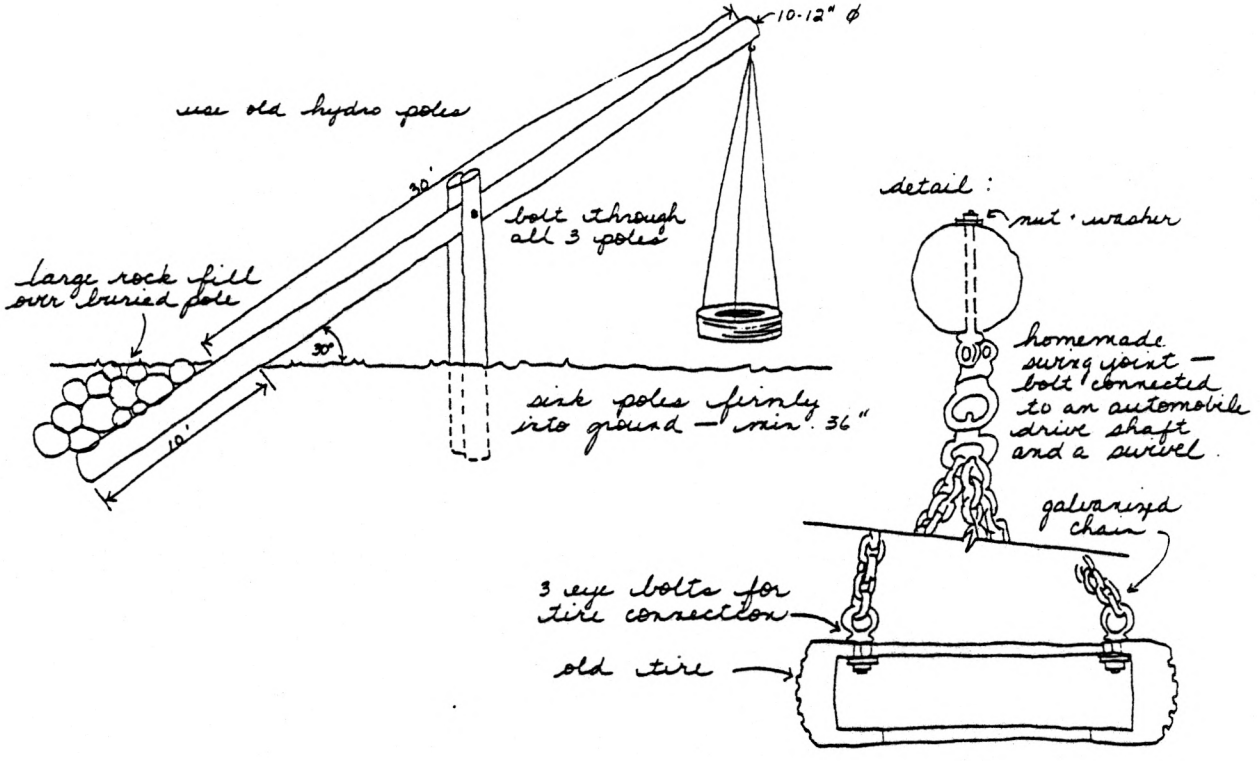
tire connections

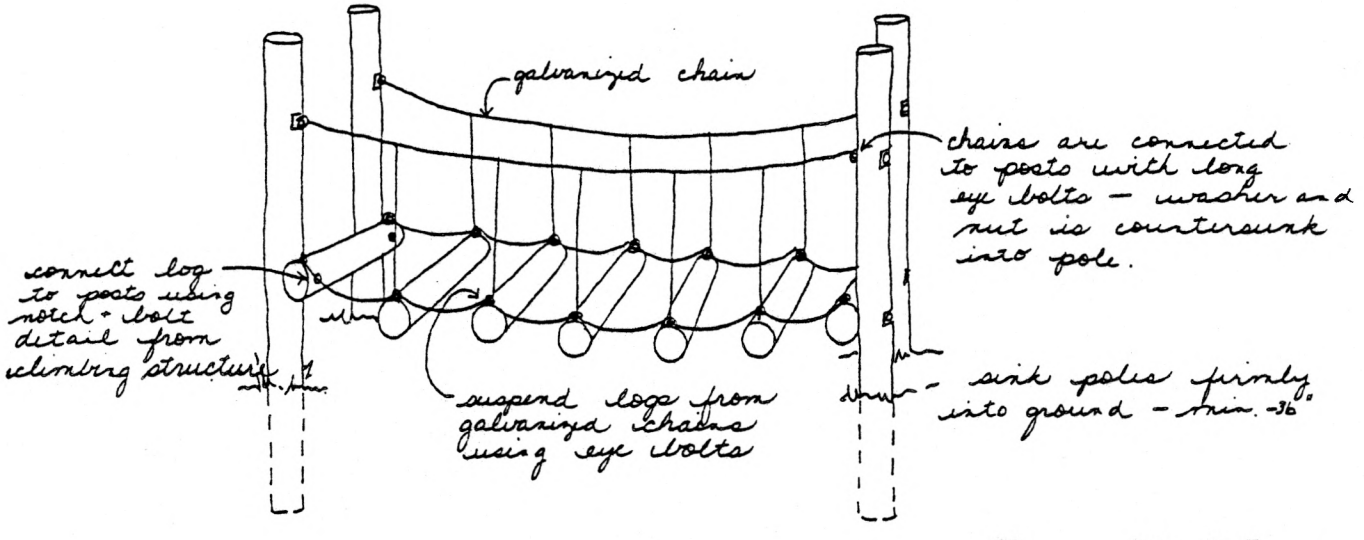


slide detail



Cantilevered Tire Swing





Log Bridge

Jenpeg site. This may not come to pass for ten to twenty years, however, and Mr. Johnson again re-iterated that no set time lines have been established at present.

Mr. Johnson went on to state that even if such lines were being run, any poles would have to be shipped to southern pressure-treatment sites. Mr. C. Harkess Manitoba Hydro, Eastern Region, verified that Hydro maintains two pressure-treatment faiclities for poles, one at Roblin and another at Neepawa, Manitoba. Any poles cut and peeled by the Band would then have to be tansported to Neepawa and treated before they could be utilized for running lines. Mr. Harkess went on to state that only Jack Pine will satisfactorily absorb the preserving treatment and yet maintain its tensile strength under stress loads. Thus Hydro will only purchase poles cut from Jack Pine.

Mr. Harkess also discussed the fact that the pressure treatment is really absorbed by the sapwood of the tree, i.e. that portion of the tree next to the bark. Thesefore, acceptable poles must be peeled but care must be taken not to remove too much of this sapwood so essential to proper treatment. In view of the length of the poles required, 35 feet, and the rather curvy nature of the Jack Pine, Mr. Harkess expressed concern in regards to the proposed machine's capacity to be altered for curvature so as not to remove too much of the vital sapwood.

If the technical problems could be overcome, Mr. Harkess stated that Manitoba Hydro would be interested in purchasing poles immediately for general use. Hydro would pay $15.25 per pole for Jack Pine poles 35 feet in length, minimum of 6" in diameter at the top and minimum of 10½" in diameter 6 feet up from the butt. In addition, for these sized poles, Hydro will pay a transportation subsidy of $11.50 per pole in order to have the product delivered to the treatment plant at Neepawa. In other words, the Band will receive $26.75 per pole for these sized poles delivered to Neepawa. For comparison purposes, a Jack Pine pole with an 11½" diameter, 6 feet from the butt, would be purchased for $17.25 with a $13.65 transportation allowance for a total, delivered price of $30.90.

Engineering feasibility analyses will have to be performed to see whether or not the proposed machine is capable of peeling the bark off Jack Pine trees without unduly damaging the sapwood. Foremost, however, resources analysis will be necessary to determine if the proper trees are available in the proper locations.

It is apparent that a potential market exists for the log lathe, especially in terms of Band housing. Additional markets may exist in terms of supplying such housing for the entire area including Cross Lake Metis, Norway House, Wabowden, etc. As this market was not too receptive in the past, however, it is probably in the best interests of the Band to consider its own housing needs as the most probable market for the proposed operations.

Resources and Operations

A major consideration of proposed operations concerns the availability of suitable resources. Or. D. Lamb, Maitoba Mines, Resources and Natural Environment, the Pas office, is acquainted with the proposed machine and has identified some areas of concern. Firstly, Mr. Lamb stated that the machine is actually very selective and that it requires trees at least 10" in diameter. As trees taper from butt to tip, trees with diameters greater than 10" will be required to produce uniform logs. Mr. Lamb is also aware that Manitoba Forestry Resources Ltd. (Manfor) has first option on all the timber rights in the area (off-reserve). If the Band were to construct 24 houses requiring 3,600 - 4,200 logs, of larger sizes, they would then be in direct competition with Manfor for raw timber. The Conlin Lake camp, situated close to Wabowden, is presently cutting 60,000 - 80,000 cords of wood per year for processing at The Pas mill.

Finally, Mines and Resources would not permit the partial use of harvested trees. Thus the Band would be required to utilize the whole trees for some purpose. To this end, the Band is also contemplating the purchase of a small saw mill so as to cut the unused tree tips, etc. into boards and planking. The Metis population in Cross Lake presently owns a saw mill which is situated in the community. The Band could therefore potentially negotiate with this group to sell them the unused tree portions and thereby effect the use of the whole tree.

If the Band is forced to harvest trees off-reserve lands, they will be required to pay a stumpage charge of 5¢ per cubic foot of finished product. Of course, if the Band is able to harvest timber situated on-reserve, stumpage fees and other restrictions will not apply.

If suitable trees are not readily available in the area, Mr. Lamb is aware of a similar operation situated in The Pas

was able to purchase properly sized logs from Petryk Bros. Ltd., Cranberry Portage, Manitoba. Mr. Lamb went on to state that, to the best of his recollection, suitable white spruce timber for housing may be obtained on reserve lands adjacent to Pipestone Lake. Finally, Mr. Lamb recalled that the similar operation in The Pas has also been utilizing Poplar trees for log housing. Mr. Lamb stated that the "R" insulative value for Poplar was superior to other woods and that Manfor operations do not utilize this species, thereby eliminating Manfor as an effective competitor for raw timber.

It is evident that definitive information as to the potential timber resources available in the immediate Cross Lake area is required. It is therefore recommended that a formal tree survey and count be performed locally. If such is not the case, the Band will be required to procure trees from other sources.

Basic operations will follow traditional, seasonal patterns whereby raw timber will be harvested during the winter and stockpiled at the lathe site. The logs will be lathed to uniform widths and houses constructed during the summer months.

It is also evident that the operational aspects of the machine to be purchased have not been fully studied at this point. It should be determined exactly what sizes, types, etc. of trees could be utilized in this machine. To accomplish this, it will be in the Band's best interests to have an engineering assessment performed so as to determine exactly the machine's capabilities and limitations.

Capital Costs

Log Lathe c/w:

1 - 24' x 32' metal building 1 - 24' x 40' metal building 1 - 24' x 32' log building 1 - 20' x 30' log building 1 - low bed trailer	$ 53,000
Skidder	35,000
Small Saw Mill	1,100
Misc. Tools, etc.	5,000
Electrical Hook-ups, etc.	3,500
Oils, etc.	200
Sub-Total	97,800
Interim Financing	1,500
TOTAL CAPITAL COSTS	$ 99,300

All estamates of cost were provided by the Cross Lake Band. By assuming an estimate $5.00 per sq. ft. for buildings, the cost component of buildings contained in the $53,000 asking price amounts to some $15,000. Also, by assuming that the flat bed trailer is worth some $3,000 to $5,000, the net residual applied specifically to the log lathe amounts to some $33,000 to $35,000.

The buildings will be utilized to house the equipment, log storage, materials storage, workshop and office space. The skidder and low bed trailer will be used to harvest timber, assumign it is procurable in the immediate area. The small saw mill will cut unused tops, etc. into boards and planking.

Financial Simulation

The following financial projections simulate proposed operations as intended by the Cross Lake Band.

All costs and expenditures were calculated in terms of 1979 dollars. An inflation rate of 10% per annum has been applied to expenditures to reflect current economic conditions.

Sales were estimated as a percentage of the $12,000 per house allotment. The initial $115,000 revenue figure assumes that the logs will account for roughly 50% of the total cost of the houses to be constructed as estimated by the Cross Lake Band. The calculation follows:

24 houses/year @ $12,000 x 40% = $115,000.
Sales were then increased by 5% per annum.

Direct labour charges were determined by the Cross Lake Band as follows:

	Salary/Annum
1 Supervisor	$ 17,600
1 Scaler	10,560
1 Skidder Operator	12,320
1 Timber Jack Operator	12,320
Labourers	10,000
	$ 62,800

This crew will essentially be responsible for the entire spectrum of the proposed operation from harvesting the raw timber in the winter months to lathing the logs in the summer. For projection purposes, salaries were increased by 10% per annum.

A miscellaneous materials charge should cover fuel expenditures, etc. and was included for purposes of conservatism.

- ditional meeting place for all residents and cultural focal point for art, crafts, library, history

- Cree language should continue to be emphasized in school programs

- the children's summer camp should be used as a means of instilling cultural awareness and traditional use skills

4.2 SPECIFIC ECONOMIC DEVELOPMENT

There are a number of economic development items which the band intends to pursue as part of a long range development program.

4.2.1 LOG LATHE OPERATION

(a) Economic Considerations

This review is only a preliminary overview of the proposed log lathe operation for Cross Lake.*

The Band has long been aware of the existence of a Fells Trunor Log Lathe which is currently owned by an individual at Wabowden, Manitoba. The machine is really a large lathe which produces uniformly round logs which may be utilized for housing, hydro poles, etc. This particular machine was once studied by the Manitoba government as it seemed to provide a product which could be readily sold locally and which utilized available resources. The machine was set up at Jenpeg, but, for various reasons, did not achieve significant sales acceptance to warrant future operation. The machine was subsequently sold to a private individual residing in Wabowden.

While the machine, with its log cabin building potential, did not apparently experience success in the open market, its product should be readily applicable to northern settings. This is especially so in areas with poor transportation access whereby the machine could provide the most bulky components of house construction via locally available resources.

These are precisely the reasons why the Cross Lake Band is actively pursuing the purchase of the log lathe. The Band must provide some housing to its members every year and thus the log lathe would essentially have its own, captive market. Furthermore, the Band is aware that Manitoba Hydro will be requiring countless hydro poles for the transmission of electricity from the Jenpeg generating station to various northern communities such as Oxford House, God's Lake, Island Lake, etc. If the Band could obtain even a portion of this market the long run profitability of the log lathe operation must be greatly enhanced.

Further, where feasible, consideration should be given to the use of such logs for other construction in the community such as the Band Material Warehouse.

Market Considerations

The Band annually receives a capital allotment based upon its population level for such items as housing and other programs. Discussions with Mr. J. Serafin, Department of Indian and Northern Affairs, reveal that the Cross Lake Band received an allotment of some $306,000 for 1979-80. Some $290,000 of this allotment was utilized for the housing program. Mr. Serafin went on to state that the department of Indian and Northern Affairs allows a basic subsidy of $12,000 per house plus the freight charges to transport the materials, etc. to the community. If the Band wishes to spend more than the $12,000 per house as identified above, additional funds would have to be obtained from some other department or agency.

In view of the $12,000 per house allotment identified above, it is apparent that last year the Band constructed approximately 24 new houses for Band members. Therefore, the proposed log lathe operation could realistically experience this volume on an annual basis. Assuming 150 - 175 logs per 1,000 sq. ft. house, the operation could expect to lathe 3,600 - 4,200 logs per annum for Band housing purposes.

Discussions with Mr. L. Johnston, Manitoba Hydro, Eastern Region, reveal that Hydro is indeed considering the running of power lines from the Jenpeg generating station to communities such as Oxford House, God's Narrows and Island Lake. However, Mr. Johnson stated that such plans are very preliminary with no set target dates. Pricing conditions, oil availability etc. are just not conducive to Manitoba Hydro's undertaking such expansion at present. As the price of fossil fuels continues to rise and the relative costs of electric heat, etc. become more compatible, it is inevitable that these communities will eventually receive cheaper electricity from the

* Completed under sub-contract by P.M. Associates in November, 1979

Operating expenses of $10,000 were arbitrarily allocated so as to account for accounting/legal, some office expenses, etc. Both of these cost factors were increased by 10% per annum.

Long term financing of some $44,000 will be required. It was assumed that such a loan could be amortized over five years at an interest rate of 17½%. In view of the current high rate of interest, it will be necessary for the Band to invest at least 20% of the total project cost in the form of cash equity.

Conclusions and Recommendations
(As of November 1979)

It is apparent from the preceeding financial simulation that an opportunity for the Cross Lake Band does exist, providing that the operating assumptions are proven to be valid. The type of operation proposed should be ideal for the Band as it will supply much needed housing and will create at least five permanent, year-round positions. However, it is also evident that significant equity and incentive assistance will be necessary to offset the present high interest charges associated with long-term financing. If such assistance is not forthcoming, it is recommended that the Band not proceed with the project.

In spite of the opportunity identified, this preliminary analysis also identifies serious questions which must be answered prior to implementation. Consequently, the following recommendations are in order:

- engineering analysis must be performed to ascertain exactly what portion of the house allotment figure of $12,000 can be realistically applied to the log walls, etc. produced by the proposed machine. In other words, is the $4,800 per house identified as revenue realistic from an engineering point of view.

- specific resource analysis must be undertaken to determine what suitable timber resources are available on-reserve. Three counts and estimates can easily be related to the annual volume of 3,600 - 4,200 logs identified in this analysis.

- it is readily observable that the operations as proposed could utilize "imported" logs but only with subsequent reductions in the labour and equipment purchases related to timber harvesting. If readily available resources are not found on-reserve as per the aforementioned resource analysis, financial projections and program alterations will have to be effected so as to produce an implementable development plan.

- engineering feasibility analysis pertaining to the specific machine in question is required, firstly to assess the machine's general state of repair and its ability to produce logs for housing construction, and, secondly to determine the machine's adaptability to hydro pole construction as identified in earlier sections of this report.

Only after these initial assessments are performed will the Band be in a position of acceptable risk so as to proceed with the proposed development. If the results of this work yields positive findings, it is recommended that the Band determine equity, negotiate long-term financing and interim financing, and, apply for incentive assistance as per available programs.

(b) Available Logs

A review of the known timber volumes within the Cross Lake area indicates that there are suitable quantities of timber available for the log lathe operation. The projected volume of potential merchantible timber for all suitable species (Jackpine, Blackspruce, White Spruce, Balsam Fir and Trembling Aspen) is 1,544,625 units. Using the Von Mantel formula, then the annual yield will be:

$$\text{Annual Yield} = \frac{\text{Potential Merchantible - contingency Timber in 1,000 cu.ft.}}{\text{Half of the Number of Years of Rotation}} \times .1$$

$$= \frac{1{,}544 - (1{,}544 \times 2.0) \text{ in 1,000 cu. ft.}}{\frac{140}{2}} \times .1$$

$$= \frac{1{,}544 - 308}{70} \times .1$$

$$= 17{,}700 \text{ ft. or } 212{,}400 \text{ bd.ft.}$$

Although this is a generalized calculation, is is evident that, if we assume 6,000 bd. ft. are required to complete a standard bungalow house, then, 35 houses could be produced each year at Cross Lake.

(c) Housing Design

Two potential housing designs are proposed for Cross Lake. These are a one storey and two storey structure as noted in

CROSS LAKE BAND - PROPOSED LOG LATHE OPERATION

INCOME STATEMENTS - PROJECTED FOR FIRST FOUR YEARS OF OPERATION

Ref.		Year 1	Year 2	Year 3	Year 4
	Sales	$ 115,000	$ 120,750	$ 126,790	$ 133,125
	Cost of Goods Sold:				
	Direct Labour	62,800	69,080	75,990	83,585
	Misc. Materials, Fuel, etc.	15,000	16,500	18,150	19,965
	Total Cost of Goods Sold	77,800	85,580	94,140	103,550
	Gross Profit	37,200	35,170	32,650	29,575
	Operating Expenses	10,000	11,000	12,100	13,310
	Net Profit before Depreciation and Interest Expense	27,200	24,170	20,550	16,265
IA-C	Depreciation Expense	10,645	8,570	6,900	3,865
	Net Profit before Interest	16,555	15,600	13,650	12,400
2	Interest Expense	7,740	6,190	4,645	3,095
	NET PROFIT	8,815	9,410	9,005	9,305

CROSS LAKE BAND - PROPOSED LOG LATHE OPERATION

DEPRECIATION SCHEDULES

Reference Schedule 1A

Buildings @ 4% on the declining balance

Year	Beginning Balance	Capital Cost Claimed	Ending Balance
1	$15,000 - $7,070	$ 315	$ 7,615
2	$7,615	305	7,310
3	$7,310	290	7,020
4	$7,020 - $1,765	210	5,045

Reference Schedule 1B

Equipment incl. lathe, skidder, small saw mill, tools, hook-ups and interim financing @ 20% on the declining balance

Year	Beginning Balance	Capital Cost Claimed	Ending Balance
1	$84,300 - $32,650	$ 10,330	$ 41,320
2	$41,320	8,265	33,055
3	$33,055	6,610	26,445
4	$26,445 - $8,165	3,655	14,625

DEPRECIATION SCHEDULES (cont'd) — Reference Schedule 1C

TOTAL DEPRECIATION

Year	Beginning Balance	Capital Cost Claimed	Ending Balance
1	$99,300 - $39,720	$ 10,645	$ 48,935
2	$48,935	8,570	40,365
3	$40,365	6,900	33,465
4	$33,465 - $9,930	3,865	19,670

Interest and Principal Payment Schedule — Reference Schedule 2

Amortized over five years @ 17½%

Year	Beginning Balance	Interest	Principal Repayment	Ending Balance
1	$44,220	$7,740	$ 8,845	$ 35,375
2	$35,375	6,190	8,845	26,530
3	$26,530	4,645	8,845	17,685
4	$17,685	3,095	8,845	8,840
5	$ 8,840	1,545	8,840	-

CROSS LAKE BAND - PROPOSED LOG LATHE OPERATION

BALANCE SHEETS - PROJECTED FOR FIRST FOUR YEARS OF OPERATION

ASSETS	Start-Up	Year 1	Year 2	Year 3	Year 4
Cash	$ 15,000	$ 25,615	$ 34,750	$ 41,810	$ 56,065
Fixed Assets:					
Cost, Net of Assistance	99,300	59,580	59,580	59,580	49,650
Less: Accumulated Depreciation	-	10,645	19,215	26,115	29,980
Net Book Value	99,300	48,935	40,365	33,465	19,670
Plus: Assistance	-	39,720	39,720	39,720	49,650
Total Fixed Assets	99,300	88,655	80,085	73,185	69,320
TOTAL ASSETS	$114,300	$114,270	$114,835	$114,995	$125,385
LIABILITIES, EQUITY, AND RETAINED EARNINGS					
Interim Financing	$ 91,440	-	-	-	-
Long-term Loan	-	$ 33,375	$ 27,530	$ 17,685	$ 8,840
Incentive Assistance	-	47,220	47,220	47,200	57,150
	22,860	22,860	22,860	22,860	22,860
Retained Earnings - Beg. of Year	-	-	8,815	18,225	27,230
Retained Earnings - During Year	-	8,815	9,410	9,005	9,305
	-	8,815	18,225	27,230	36,535
TOTAL LIABILITIES, EQUITY AND RETAINED EARNINGS	$114,300	$114,270	$114,835	$114,995	$125,385

CROSS LAKE BAND - PROPOSED LOG LATHE OPERATION

SOURCES AND APPLICATION OF FUNDS - PROJECTED FOR FIRST FOUR YEARS OF OPERATION

	Start-Up	Year 1	Year 2	Year 3	Year 4
Income from Operations		$ 8,815	$ 9,410	$ 9,005	$ 9,305
Plus: Oepreciation		10,645	8,570	6,900	3,865
		19,460	17,980	15,905	13,170
Additional Funds Provided:					
Equity Investment	$ 22,860				
Long-term Loan	-	44,220			
Incentive Assistance	-	47,220	-	-	9,930
Interim Financing	91,440	-	-	-	-
	114,300	110,900	17,980	15,905	23,100
Application of Funds:					
Fixed Assets	99,300				
Loan Repayment	-	8,845	8,845	8,845	8,845
Interim Financing Repayment	-	91,440	-	-	-
		100,285	8,845	8,845	8,845
Increase (decrease) in Working Capital Ouring Year	-	10,615	9,135	7,060	14,255
Working Capital - Beginning of Year	-	15,000	25,615	34,750	41,810
Working Capital - End of Year	15,000	25,615	34,750	41,810	56,065

the following design sketches. The intent of these designs is to stimulate discussion on the types of housing which could more adequately meet northern conditions. Before proceeding with actual log lathe operation, it will be necessary to determine detailed drawings of the two housing types, specific construction material needs and components. The intent of the designs, however, is to indicate that local housing material can be produced locally in a log lathe and sawmill operation.

Implementation Steps

- review program with Band members
- finalize purchase of the log lathe
- complete architectural drawings of desired floor plans and construction requirements
- withdraw forestry areas as "hold" areas
- develop cutting plan for log producing areas
- begin marketing program to other communities

4.2.2 TOURIST LODGE FACILITY

Given the fact that Cross Lake and the Minago River have excellent potential for sport fishing purposes and that no lodge operation exists upon these waters, it is likely that a 10 bed lodge operation could be feasible. In order for the lodge to capture vehicle traffic, the Minago River crossing site should be considered for such an operation. The band could operate such a facility at this location following selection of the area as part of the land exchange program. The lodge could possibly employ 4 full-time staff and 4 part-time staff. The facility should be a modest 3-star level operation. Once operational, the Band should consider the operation of a fly-in complementary Lodge on Utik Lake.

Implementation Steps

- determine feasibility of tourist lodge operation, appropriate scale, rates and operation program
- finalize Minago River crossing exchange lands
- market lodge operation
- construct lodge facility
- examine feasibility of Utik Lake operation and if favourable select exchange area

4.2.3 COMMERCIAL COMPLEX

It is essential that the continual one store domination of Cross Lake be terminated. The existing band operated store has limited floor space and availability of goods. In the future, a new commercial/administration complex is required to replace the current band store and band offices. Given the locational nature of the present community, it is proposed here that any future commercial complex be located in the new townsite.

Such a commercial complex could provide the following:

- major food store
- bank credit union
- retail store
- laundromat
- lunch bar
- recreation facilities
- personal service outlets (hairdressing, barber shop
- bakery
- motel/hotel/restaurant

All such commercial operations should be operated by local residents. To ensure that such operations generate community secondary and tertiary economic benefits, ownership (and hence profits) should be retained by the band or band members. In addition, where possible, local items should be given preference selling in commercial ventures.

4.2.4 LOCAL SERVICE INOUSTRIES

At the present time, there are a number of small locally operated service industries in Cross Lake. These enterprises include repair shops, fuel oil delivery, taxi service etc. In the future, additional service industries will be required to provide electrical repair and service (wiring, appliances), contracting service, trades such as plumbing, heavy equipment operation and major automobile repair.

Implementation Steps

- provide comprehensive and, where possible, in-community training programs for selected service industries

4.2.5 MARKET GARDENING

If Cross Lake is to achieve higher levels of employment, then, wherever possible, internally produced goods and hence internally generated transfer of goods and employment will be essential. One area where this is possible is in food production for vegetables, and a lesser extent fish/meat products. The former could take place using tested northern market garden techniques. In view of the significant disruption by hydro development to traditional food stuff sources, the power requirement for winter operation should be negotiated as a benefit from Manitoba Hydro. The available soil conditions in Cross Lake could support a market garden operation given the proper clay/till and organic peat mix. It is quite conceivable that such a market garden operation could produce enough vegetables for all of Cross Lake use as well as export to other local communities. Such an operation will

provide some 4 full-time jobs.

Implementation Steps

- establish training program for market gardening operation and sales
- develop a phased operation
- contract vegetable supply sources with the Bay and Band store
- market extra produce to local operations at Norway House

4.2.6 HOG OPERATION

In connection with the market garden operation and potential for wood fibre agricultural feed, establish a limited hog operation capable of producing twenty market hogs per month. Such an operation could and should avoid the importation of southern grain feeds.

Implementation Steps

- attend hog management course
- investigate wood fibre feed source
- construct hog barn operation
- produce and market hogs
- create a hog slaughter house
- market surplus hogs to local communities

4.2.7 WILD GAME PRODUCTION

In order to continue to capitalize on traditional food sources, a mechanism for internal fish and game marketing should be encouraged for those residents who are unable to obtain such food. The high protein value of such fish and game species and the continued potential desire for such food warrants special recognition that central marketing of such species on a bartering basis may be desirable.

Implementation Steps

- determine the need for a central wild game marketing service
- provide a market area for wild game distribution

4.2.8 GARMENT MANUFACTURE

Interest has been expressed in the opportunity for residents to purchase more traditional types of outer garments. These include jackets, footwear, gloves and hats. If a market does exist for such items, a small garment manufacturing enterprise may be feasible. Such an enterprise should be initially geared to the production of garments for local sale. This would require one full time position, producing garments out of a small facility. Should this venture prove profitable, then, consideration should be given to the export of such garments to other native centres.

Implementation Steps

- begin garment manufacture on a small scale, meeting demand requirements
- examine feasibility of expanding production after a 6 month trial period
- determine potential marketing requirements to establish potential export market

4.2.9 ROAD CONSTRUCTION*

The Cross Lake Band of Indians has very successfully demonstrated its capability in major road building programs. Through the Band controlled Midnorth Development Corporation Ltd., the Cross Lake Reserve roads have been substantially rebuilt to provide adequate local transportation service. It is the intent of the Band to expand and export this capability to other areas of the north. As part of the economic development section of this study a special analysis was undertaken for the provision of Midnorth Development Corporation Ltd as a major road construction company.

In general, the Cross Lake Band is aware of some $17 to $18 million are spent annually on road construction work in northern Manitoba. By having equipment already located in the north and in view of the experience to be gained over the next few years, the Band is confident that it will be in a position to effectively compete for future road-oriented construction work. To this end, the Band is in the process of forming the Midnorth Development Corp. Ltd. This development company will henceforth represent the road building operations of the Cross Lake Band.

In view of the road work to be performed in the immediate Cross Lake area, the following possible income projections have been utilized for purposes of this report:

	Year 1
Contract Income:	
DREE/Northlands	$ 2,000,000
OIANO, Miscellaneous	300,000
TOTAL CONTRACT INCOME	2,300,000

	Year 2
Contract Income:	
DREE/Northlands	$ 2,500,000
DIAND, Miscellaneous	-
TOTAL CONTRACT INCOME	2,500,000

*This review was undertaken by P.M. Associates as a general background, discussion only

	Year 3
Contract Income:	
OREE/Northlands	-
DIANO, Miscellaneous	$ 1,500,000
TOTAL CONTRACT INCOME	1,500,000

Capital and Operation Cost Considerations

A great deal of heavy earth-moving equipment is required to perform the work in question. The Cross Lake Band already has some of this equipment as presented in the following list provided by Mr. Baptiste Robinson, Band Manager:

Equipment	Market Value (Estimated)
(new) C266 Bantam Backhoe	$ 75,000
(new) 040 Cat Oozer	45,000
(new) 12E Cat Grader	35,000
(new) 72 - 31B Terex Loader	100,000
(new) Gravel Trucks	50,000
1979 4 x 4 Crew Cab	50,000
1977 ½ Ton Super Cab	10,000
1967 Fuel Truck	7,000
1967 422 Jr. Cedarapids Crusher	85,000
1977 314 Ton Suburban 4 x 4	12,000
TOTAL PRESENT EQUIPMENT	423,000

Mr. Robinson and the Band have estimated the fair market value of their equipment.

The equipment procurement necessary to complete the identified road work is as follows:

Equipment	Estimated Cost
1 - 72 Terex Loader c/w track	$ 120,000
3 - 14 yd. TS 14B Scapers @ $210,000	630,000
2 - (07) Terex Model 82-20B Tractor	400,000
1 - (D6) Terex Model 82-10 Tractor	175,000
3 - Pull Type Scraper @ $20,000	60,000
1 - Mobile Welder	2,500
1 - 36 Passenger Bus	25,000
1 - Lowbed Trailer, 36 ft.	20,000
1 - 12E Cat Grader	60,000
Miscellaneous Equipment	10,000
Portable Lighting Plant	5,000
TOTAL EQUIPMENT COST	1,507,500

The Cross Lake Band has obtained these estimates from equipment supplies wherever possible.

Operating costs have been based upon the Band's actual operating experience. Labour estimates utilize the following current wage rates:

Superintendent	$2,500/month
Mechanic	2,000/month
Operators	1,700/month
Welders	1,800/month
Labourers	1,500/month
Cooks	1,500/month
Office Assistant	1,000/month

+ 7% Employee Benefits

+ 10% Administrative Cost

+ 10% Compensation Cost

Materials costs were estimated in view of past operating experience. The Band has negotiated an agreement with the Province of Manitoba to obtain rock, etc. from a nearby site at 25¢/square yard. Food costs assumed an initial charge of some $6.50/meal/person/day. This amount allows for workers to be fed once on-site (say lunch) while working on the projects identified in the Cross Lake area. Fuel charges were based upon the Band's current experiences as ten machines are presently utilizing some $5,000 of fuel every two weeks. Thus the 20 or so machines projected may use some 20/10 x $5,000 = $10,000 of fuel every two weeks. A miscellaneous charge was also included in this analysis.

Based upon the foregoing, direct costs were estimated as follows:

Direct Costs	Year 1
Labour	$ 667,000
Benefits (15% of labour)	100,050
Materials	46,000
Fuel	138,000
Food	51,000
Miscellaneous	92,000
Other	100,000
TOTAL DIRECT COSTS	$ 1,194,050

Direct Costs	Year 2
Labour	$ 800,355
Benefits (15% of labour)	120,055
Materials	55,000
Fuel	165,000
Food	60,980
Miscellaneous	109,795
Other	124,590
TOTAL DIRECT COSTS	$ 1,435,775

Direct Costs	Year 3
Labour	528,230
Benefits (15% of labour)	79,235
Materials	36,300
Fuel	108,900
Food	40,245
Miscellaneous	72,465
Other	82,235

TOTAL DIRECT COSTS $ 947,610

For Years 2 and 3, costs were first adjusted for volume changes and then increased by 10% to reflect inflation, for example:

Year 1

Materials $ 46,000

Year 2

Materials $\frac{25}{23}$ x $46,000 x 1.1

Year 3

Materials $\frac{15}{23}$ x $55,000 x 1.1

Consequently, direct costs as a percentage of sales will increase over the projection period.

Financial Simulation

The following financial statements realistically simulate the proposed operations of the Midnorth Development Corp. Ltd. as foreseen by the Cross Lake Band.

All revenues, expenses and capital costs have been calculated in terms of present dollars. An inflation rate of 10% has been applied throughout this analysis to reflect inflation.

Projects were performed for the first three years of proposed operations only. During this period the company to be formed will be bidding on highly localized work in close proximity to the Cross Lake reserve. During this period, the company to be formed will bid on other road projects and attempt to establish itself as a major construction firm in northern Manitoba. The intent is to be able to effectively compete for road construction in northern Manitoba on a continuous basis.

Depreciation was applied to the value of assets net of A.R.D.A. participation so as to comply with Revenue Canada regulations.

The following income statements, balance sheets and sources and applications of funds statements indicate that the proposed operation would be a profitable business venture for the Cross Lake Band. Given the risks and high costs associated with this project, a legitimate need for financial assistance does exist. For purposes of this analysis, an incentive grant of $250,000 was assumed to be available to the project. 80% of this grant was assumed to be forthcoming near start-up in Year 1 projections. The remaining $50,000 contribution was assumed to be available after Year 3.

An equity investment of $700,000 has been identified in this report. The Cross Lake Band will invest their existing equipment, some $423,000, as well as provide $77,000 in cash. The Band will approach D.I.A.N.D. for an additional equity contribution of $200,000.

Long-term and interim financing was assumed to be available to the proposed company. Projections indicate that such financing could indeed be retired by the end of Year 2 if sales estimates are achieved. Excess cash surpluses were allowed to accumulate but no additional interest income was included in the analysis. Thus the projections do contain an inherent contingency.

Notes

Direct costs were estimated on the basis of discussions with Chief George Ross and Baptiste Robinson of the Cross Lake Band. The Band members utilized their previous road building experience wherever possible and costs were determined as a percentage of sales as follows:

	Year 1
Sales	100%
Labour	29
Benefits (15% of labour)	4.4
Materials, Fuel, Food, etc.	14.2
Other (contingencies, etc.)	4.4
	52%

Year 2 costs were increased by 10% to reflect inflation, i.e. 52% x 10% = 5.2% + 52% = 57.2%. A similar calculation was utilized to determine Year 3 costs, i.e. 57.2% x 10% = 5.72% + 57.2% = 62.9%. The respective dollar values were then determined by applying the same ratio of individual costs to total costs.

Deprecation was applied to existing and new assets at a rate of 30%. The value of new assets was first decreased by the amount of incentive assistance requested so as to comply with Revenue Canada regulations.

The first year interest expense reflects the interest on long-term financing of $180,670 plus an interim financing interest payment of $52,500.

A tax allowance of 25% was used for net profit before tax less than $500,000, while 30% was utilized for net profit before tax greater than $500,000.

Inventory will be comprised of materials, fuel etc. stockpiles so as to facilitate smooth work schedules. The level of inventory was estimated at one-quarter of the entire season's purchases.

Interim financing will be required to bridge the period from star-up to actual incentive

CROSS LAKE BAND
PROPOSED ROAD BUILDING OPERATION
INCOME STATEMENTS - PRELIMINARY ASSESSMENT

R.S.		Year 1	Year 2	Year 3
	Contract Income	$ 2,300,000	$ 2,500,000	$ 1,500.000
	Direct Costs:			
	Labour	667,000	800,355	528,230
	Benefits	100,050	120,055	79,235
	Materials, Fuel, Food, etc.	327,000	390,775	257,910
	Other	100,000	124,590	82,235
	Total Direct Costs (1)	1,194,050	1,435,775	947,610
	Gross Profit	1,105,950	1,064,225	552,390
IA-C	Depreciation Expense (2)	519,150	363,405	254,380
	Net Profit before Interest Expense	586,800	700,820	298,010
	Interest Expense (3)	233,170	144,535	-
	Net Profit before Tax	353,630	556,285	298,010
	Tax Allowance (4)	88,410	166,885	74,500
	NET PROFIT	$ 265,200	$ 389,400	$ 223,510

CROSS LAKE BAND
PROPOSED ROAD BUILDING OPERATION
DEPRECIATION SCHEDULES

Reference Schedule 1A

Existing Equipment @ 30%

Year	Beginning Balance	Capital Cost Allowance	Ending Balance
1	$ 423,000	$ 126,900	$ 296,100
2	296,100	88,830	207,270
3	207,270	62,180	145,090
4	145,090	43,525	101,565
5	101,565	30,470	71,095

Reference Schedule 1B

New Equipment (net of A.R.O.A. contribution) @ 30%

Year	Beginning Balance	Capital Cost Allowance	Ending Balance
1	$1,507,500 - 200,000	$ 392,250	$ 915,250
2	$915,250	274,575	640,675
3	$650,675	192,200	448,475
4	$448,475 - 50,000	119,545	278,930
5	$278,930	83,680	195,250

OEPRECIATION CONSOLIOATION — Reference Schedule 1C

Year	Beginning Balance (net of AROA contribution)	Capital Cost Allowance	Ending Balance
1	$ 1,730,500	$ 519,150	$ 1,211,350
2	1,211,350	363,405	847,945
3	847,945	254,380	593,565
4	543,565	163,070	380,495
5	380,495	114,150	266,345

CROSS LAKE BANO
PROPOSEO ROAO BUILOING OPERATION
LONG-TERM LOAN REPAYMENT SCHEOULE — Reference Schedule 2

$1,290,500 @ 14% over 5 years

Year	Outstanding Balance Beginning of Year	Principal	Interest	Outstanding Balance End of Year
1	$ 1,290,500	$ 258,100	$ 180,670	$ 1,032,400
2	1,032,400	258,100	144,535	774,300
3	774,300	258,100	108,400	516,200
4	516,200	258,100	72,270	258,100
5	258,100	258,100	36,135	-

CROSS LAKE BANO
PROPOSEO ROAO BUILOING OPERATION
BALANCE SHEETS - PRELIMINARY ASSESSMENT

Assets	Start-up	Year 1	Year 2	Year 3
Cash	$ 150,000	$ 676,270	$ 376,675	$ 854,565
Inventory	110,000	110,000	130,000	130,000
	260,000	786,270	506,675	984,565
Fixed Assets:				
Existing	423,000	423,000	423,000	423,000
Less: Accumulated Depreciation	-	126,900	216,750	277,910
Book Value of Existing Assets	423,000	296,100	207,270	145,090
New Asset Cost (net of AROA)	1,507,500	1,307,500	1,307,500	1,307,500
Less: Accumulated Oepreciation	-	392,250	666,825	859,025
Book Value of New Assets	1,507,500	915,250	640,675	448,475
Incentive Applied to New Assets	-	200,000	200,000	200,000
Total Fixed Assets	1,930,500	1,411,350	1,047,945	793,565
TOTAL ASSETS	$ 2,190,500	$ 2,197,620	$ 1,554,620	$ 1,778,130

CROSS LAKE BAND
PROPOSED ROAD BUILOING OPERATION
BALANCE SHEETS - PRELIMINARY ASSESSMENT (cont'd)

Liabilities, Equity and Retained Earnings	Start-up	Year 1	Year 2	Year 3
Interim Financing (2)	$ 1,590,500			
Long-Term Loan (3)	-	$ 1,032,400	-	-
Equity, Contribution and Retained Earnings:				
Equity Inc. OIANO (4)	700,000	$ 700,000	$ 700,000	$ 700,000
Incentive Assistance (5)	-	200,000	200,000	200,000
Retained Earnings (Beginning of Year)	-	-	265,220	654,620
Income for Year	-	265,220	389,400	223,510
Retained Earnings (End of Year)	-	265,220	654,620	878,130
Total Equity, Contribution and Retained Earnings	700,000	1,165,220	1,554,620	1,778,130
TOTAL LIABILITIES, EQUITY ANO RETAINEO EARNINGS	$ 2,190,500	$ 2,197,620	$ 1,554,620	$ 1,778,130

CROSS LAKE BANO
PROPOSEO ROAO BUILOING OPERATION
SOURCES ANO APPLICATIONS OF FUNDS STATEMENTS

	Start-Up	Year 1	Year 2	Year 3	Year 4
Income from Operations	-	$ 265,220	$ 389,400	$ 223,510	
Plus: Depreciation	-	519,150	363,405	254,380	
	-	784,370	752,805	477,890	
Additional Funds Provided:					
Equity incl. OIANO	$ 277,000				50,000
Incentive Assisatnce	-	200,000			
Interim Financing	1,490,500				
Long-Term Loan	-	1,290,500			
Total Funds Provided	1,767,500	2,274,870	752,805	477,890	
Application of Funds:					
New Equipment	1,507,500				
Interim Financing	-	1,490,500			
Long-Term Loan Repayment	-	258,100	1,032,400	-	
Increase (Oecrease) in Working Capital Ouring Year	260,000	526,270	(279,595)	477,890	
Working Capital-Beginning of Year	-	260,000	786,270	506,675	
Working Capital-End of Year	260,000	786,270	506,675	984,565	

assistance funding procurement. Some $1,490,500 will be required for this purpose. Interest has been charged at a rate of 14% for six months on the average loan required, i.e.:

$$\frac{\$1,490,500}{2} @ 14\% \times \frac{6}{12} = \$52,500$$

This interest figure has been expensed and included in Year 1 interest expense calculations.

It is assumed that some $1,290,500 long-term financing is available to the Cross Lake Band. An interest rate of 14% with a five year amortization and term were assumed to be reasonable.

The Cross Lake Band will provide $500,000 worth of equity in the form of $423,000 of new equipment and $77,000 in cash. O.I.A.N.O. will be requested to provide additional cash equity of $200,000.

Some $250,000 of incentive assistance was assumed to be available to the Band. This amounts to 16.6% of the new fixed assets to be acquired. 80% of the grant was assumed forthcoming in Year 1 of proposed operations with the remainder being received in Year 4.

Employment Considerations

Virtually all of the equipment requirements generated by the proposed project will be satisfied by members of the Cross Lake Band.

In view of the localized sales projections only, the following employment opportunities could be provided by the proposed company:

Positions (estimated) for 12 months/year	Year 1
Superintendent	1 @ $2,500/mo.
Mechanic	1 @ $2,000
Operators	2 @ $1,700
Welders	2 @ $1,800
Labourers	6 @ $1,500
Cooks	2 @ $1,500
Office Assistant	1 @ $1,000
Miscellaneous Labour	$5,000/yr.
TOTAL OIRECT LABOUR (not including benefits)	$667,000/yr.

Positions (estimated) for 12 months/Year	Year 2
Superintendent	1 @ $2,750/mo.
Mechanic	1 @ $2,200
Operators	20 @ $1,870
Welders	2 @ $1,980
Labourers	9 @ $1,650
Cooks	2 @ $1,650
Office Assistant	1 @ $1,100
Miscellaneous Labour	$13,635/yr.
TOTAL OIRECT LABOUR (not including benefits)	$800,355/yr.

Positions (estimated) for 12 months/year	Year 3
Superintent	1 @ $3,025/mo.
Mechanic	1 @ $2,420
Operators	6 @ $2,055
Welders	4 @ $2,180
Labourers	6 @ $1,815
Cooks	2 @ $1,815
Office Assistant	1 @ $1,210
Miscellaneous Labour	$21,530/yr.
TOTAL OIRECT LABOUR (not including benefits)	$528,230/yr.

From the above, the following labour may be created by the proposed company:

	Year 1
Oirect Labour	33 man years
Miscellaneous Labour	.5 man years
Total Man Years	33.5 man years

	Year 2
Oirect Labour	36 man years
Miscellaneous Labour	1 man year
Total Man Yeras	37 man years

	Year 3
Direct Labour	21 man years
Miscellaneous Labour	1.5 man years
Total Man Years	22.5 man years

It is important to note that the man years identified pertain only to highly localized work requirements in Cross Lake over the next few years. Should the Band be successful with other competitive bids, the employment generated will increase accordingly.

In any case, some 93 man years of employment could be generated over the next three years by the proposed company. These employees will be paid some $2 million in wages, not including benefits, over this same period for an average salary of some $21,460 per man year.

By assuming the most conservative employment record of 22.5 man years as projected for Year 3, the $250,000 in A.R.O.A. assistance requested amounts to only $11,100 per man year.

4.3 LAND EXCHANGE AND HOLD AREAS

Under the terms of the Northern Flood Agreement, the Cross Lake Band will receive 11,720 acres of Crown land in exchange for approximately 2,930 acres of reserve land required for Hydro severence control (below 690 a.s.l.). In addition, the Band is able to define hold areas within traditional use lands. These hold areas are intended for the band to utilize the resource base for a specified period of time. Band Council Resolutions #276-104-80 and #276-105-80 requested that the following exchange areas be set aside for the Band.

4.3.1 PROPOSED EXCHANGE AREAS (APPENDIX 2)

As part of the community planning study, four areas were identified for land exchange acquisition. These were north Sand Bay, east Sand Bay, Whiskey Jack Landing and Minago River. These four acquisitions would total 5,433 acres. As a result, a total of 6,287 acres will remain available for additional selection.

(a) Sand Bay (Plan 3)

The Sand Bay area has been considered as an ideal extension for the Cross Lake Band. The Band has constructed a road into the area for purposes of gravel extraction. In 1977, the Department of Renewable Resources undertook an appraisal of the Sand Bay area for residential development purposes.

(i) Current Land Committments

As a result of this provincial study, a community expansion area was set aside surrounding Sand Bay. This proposed expansion area covers most of those lands adjacent to Sand Bay. In addition, a waste disposal ground for the Community of Cross Lake also occurs in the area.

(ii) Resource Analysis

The area immediately adjacent to Sand Bay has high capability for residential development. This analysis included not only the forestry map analysis and air photo overview but also Forrester's comprehensive terrain study. In view of the committment to the Community of Cross Lake for a portion of the area, it would seem logical to view Sand Bay for its potential as a gravel source to the Cross Lake Band, as well as a potential residential area for the Band.

(iii) Recommended Land Exchange Area

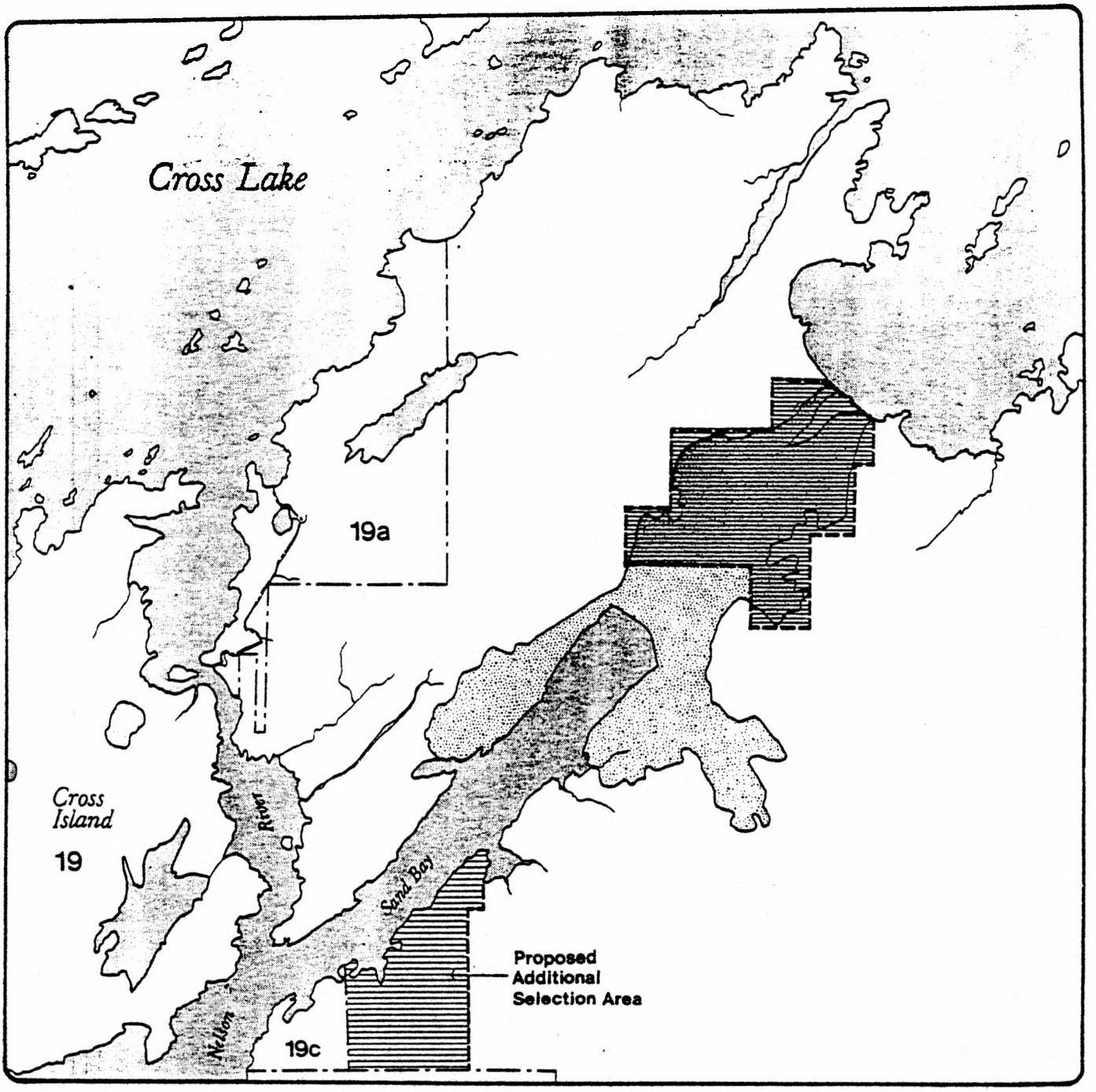
In view of the need for the Cross Lake Band to acquire satisfactory gravel resources, it is recommended that 1,130 acres be examined for purposes of defining major gravel resources on the north side of Sand Bay and another 645 acres be acquired for residential purposes on the south side of Sand Bay. In order to maximize the actual acreage set aside, an on-site gravel site analysis is proposed before a final exchange is demarcated. In the meantime, however this report proposes that the Cross Lake Band indicate an intention to select in the Sand Bay area as set out on the attached map.

(b) Whiskey Jack Landing (Plan 4)

By Band Council Resolution 276-048-79, the Cross Lake Band of Indians requested that some 3,000 acres be set aside at Whiskey Jack Landing for partial fulfillment of the 4 to 1 exchange.

(i) Current Land Committments

There are a number of major land committments falling within the proposed exchange area. These committments include the following: Water Power Licence Area; Department of Highways Jenpeg to Norway House and Jenpeg to Cross Lake road rights-of way; Department of Northern



Potenial Gravel Deposits

Proposed Exchange Area

Sand Bay: Gravel Resources and Proposed Exchange Areas

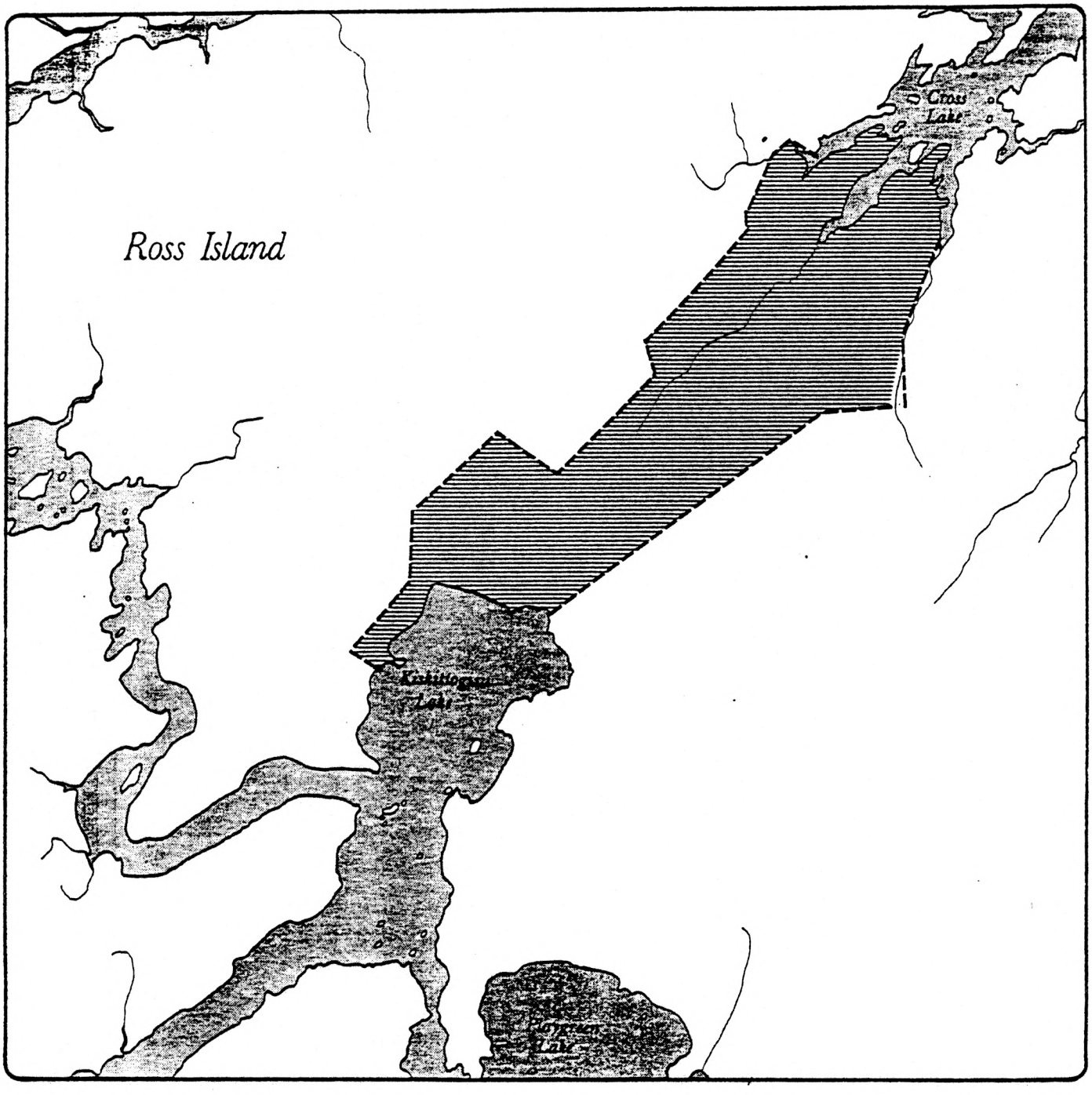
FEET 1000 2 3 4 One Mile

METRES 500 1000 1500

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Fair Willy
& Associates

Cross Lake Planning Study

Plan 3



Recommended Exchange Area

Whiskey Jack: Recommended Exchange Area

FEET 1000 2 3 4 One Mile

METRES 500 1000 1500

for the Cross Lake Band of Indians & Dept. of Indian Affairs by Hilderman Fair Witty & Associates

Cross Lake Planning Study

Plan 4

Affairs ferry docking facilities on Cross Lake and Kiskittogisu Lake; Manitoba Telephone System microwave tower, Manitoba Forest Resources Ltd. specified cutting area and a general permit. In addition, the Department of Highways has indicated its desire to have the right to extract gravel within 1,500 feet of the road rights-of-way.

(ii) Resource Analysis

The Whiskey Jack area is largely of moderately low or low development capability. This means that the area is not particularly worthwhile for residential, commercial or industrial development. There are some isolated areas which are capable of supporting development but these are scattered throughout the Whiskey Jack area.

(iii) Recommended Exchange Area

In view of the poor quality of some of the Whiskey Jack lands and previous committments to other land uses, it is proposed that the Cross Lake Band of Indians consider the selection of some other lands at Whiskey Jack. This will ensure that the Band only selects land capable of supporting development. This proposed modified area covers some 3,240 acres.

(c) Minago River Crossing (Plan 5)

A third area under consideration for land exchange is the Minago River Crossing. This area lies along the entrance of the Minago River into Cross Lake.

(i) Current Land Committments

At the present time, there are four major land committments along the Minago River. These are the Parks Branch Minago River Wayside Park; Proposed Manitoba Hydro Transmission Line; Department of Highways Jenpeg Road right-of-way and DRAM fishing site. None of these committments appear to seriously impede Crown land exchange in this area.

(ii) Resource Analysis

An examination of the capability for development analysis reveals that the northwestern portion of the Minago Crossing is ideal for potential tourism and recreation development. Immediately adjacent to the Minago River, the area is composed of 80% trembling aspen and 20% balsam fir. Initial air photo analysis suggests bedrock at depths of +10 feet.

The southwestern area is composed of 90% trembling aspen and 10% balsam over 5 to 10 feet of overburden. The surrounding Class 3 lands are composed of an admixture of black spruce, trembling aspen and jackpine. These areas have moist to fresh drainage conditions in association with +10 feet of overburden.

(iii) Recommended Land Exchange Area

It would appear most favourable to select land along the north shoreline of the Minago River crossing. In this way, the Cross Lake Band of Indians would control one side of the Minago Crossing. The recommended area avoids land which are not suitable for development. In fact, the proposed area has a high capability to support band sponsored tourism and recreation development. The proposed area would consist of 418 acres. In addition, another area adjacent to Cross Lake is proposed to the Band for additional exchange consideration at the Minago Crossing.

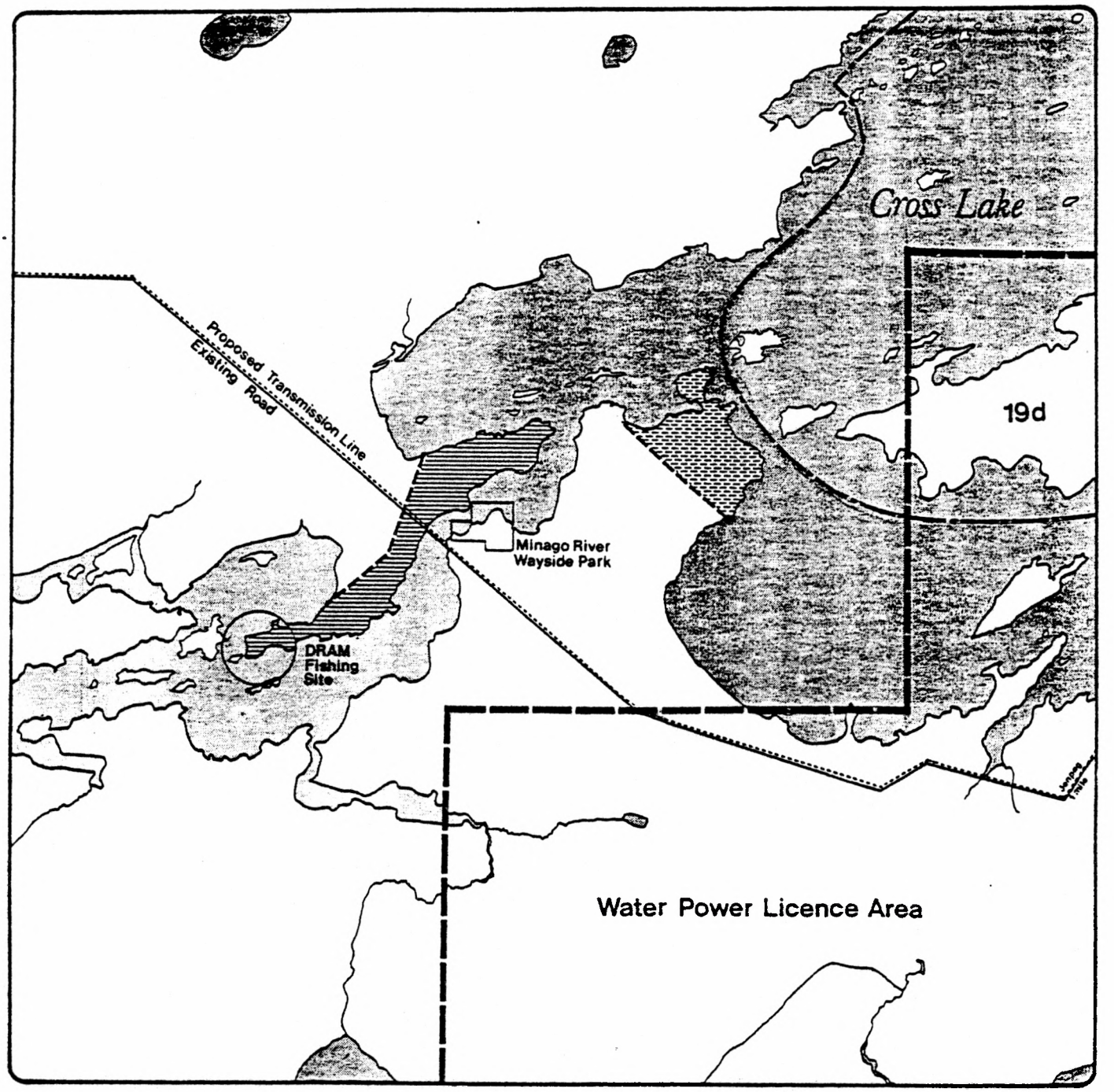
4.3.2 FUTURE EXCHANGE AREAS

The remaining 6,287 acres should be held by the Band for selection of known economically significant lands such as mineral deposits. The following strategy is proposed for Band Council consideration.

- retain a significant portion of the 6,287 acres for acquisition of proven economic development sites
- following a thorough geological survey of the area, designate exchange land over those sites which have known economic potential
- where desirable, place exchange status upon the most viable hold areas using the hold area designation as an interim measure ensuring initial Band control

4.3.3 HOLD AREA

Given the fact that the traditional use area for Cross Lake has been throughout and adjacent to the existing waterways near Cross Lake, any hold area should reflect the past extensive use made of the natural resources of the region by the Cross Lake people. In order for any hold area at Cross Lake to realistically reflect this past use, then, a hold area boundary of extensive proportions is necessary. This is especially true in view



Proposed Land Exchange

Potential Additional Exchange Area

FEET 1000 2 3 4 One Mile

METRES 500 1000 1500

Minago R.: Land Use Commitments and Proposed Exchange Areas

for the Cross Lake Band of Indians & Dept. of Indian Affairs by Hilderman Fair Witty & Associates

Cross Lake Planning Study

Plan 5

of the capability of the land and water to support the growing population of Cross Lake. If long-term sound management of Cross Lake traditional resource activities is to continue, then, it will be essential for a hold area designation to encompass all of the traditional use lands. As a result, it is recommended here that the Cross Lake Registered Trapline be the basis for the hold area designation. Such a designation will also facilitate the fulfillment of Article 15 "Wildlife Resources Policy."

If such a "hold" designation is not possible, then, the Cross Lake Band of Indians should place hold status on the timber resources of the region. In addition, hold status should be placed upon Bear and Egg Lakes, any major Jenpeg road river crossings, all other lands within a ten mile radius of Cross Lake and the potential mineral deposits located near offshore of Cross Island.

In order to secure hold areas of potential economic value the following points are proposed:

- request an immediate hold upon the identified timber lands including Twp. 63 Rge. 2; Twp. 64, Rge. 3; Twp. 64, Rge. 4; Twp. 65, Rge. 1; Twp. 65, Rge. 3; and Twp. 65 Rge. 4.

- request an immediate hold area within a radius of 10 miles of Cross Lake for all Crown lands not previously allocatted.

- begin immedite negotiations to acquire the the services of a precambrian geologist to identify mineral "hot spots"; following potential "hot spot" identification place such areas under "hold area" status

- place the question of hold area criteria discussed by Manitoba before the arbitrator

4.4 REGIONAL OEVELOPMENT PROGRAMS

It is essential that first exclusive bid opportunity for regional development programs go to local firms such as Mid-North Oevelopment Corp. For instance, Manitoba Hydro should be required to tender to Mid-North Development Corp. for the clearing of the proposed Cross Lake - Oxford House hydro line and provision of timber for line construction. When other government agency projects are identified, similar consideration should be given to local firms.

In addition, it is important that a freeze be placed on any land use committments within the Cross Lake Trapping Block. This freeze is essential to ensure that future allocations of land and resources accrue to the benefit of Cross Lake residents. Without such a freeze, sporadic land use committments could be made to non-residents. The freeze should be held in place until this plan has been adopted by all parties as working development strategy. Following this step the freeze could be lifted in a joint development program which benefits Cross Lake and the Province of Manitoba.

In order for the Cross Lake Band to actively acquire and manage the Trapping Block,(Plan 6) Article 15 "Wildlife Resources Policy" should be used as one tool for local resource management input. Further policies will be required for forestry and mineral resource management.

4.5 OETAILEO IMPLEMENTATION ANO COSTS

The following detailed implementation program and costs set out the expected five-year capital forecast for Cross Lake. Note: Where * occurs, training should be provided as an integral part of the work program. All costs are 1980 dollars at a Class O level of estimate.

.4.5.1 PROJECT DESCRIPTION (000's)

1981-82

(a) New School* $13,800.00

- cost being revised in view of community Council decision not to share joint-use plan
- 72,000 sq. ft. space being revised

(b) Upgrade Water Supply* $300,000.00

- 4 new water delivery trucks needed
- Albert Lake pumping station requires upgrading
- Albert Lake water supply lines need repair and insulation
- water supply building and garage construction for Albert Lake supply line
- construct garage and water supply building on Cross Island
- install higher quality water holding tanks in houses

(c) Recreation Complex* $1,200,000.00

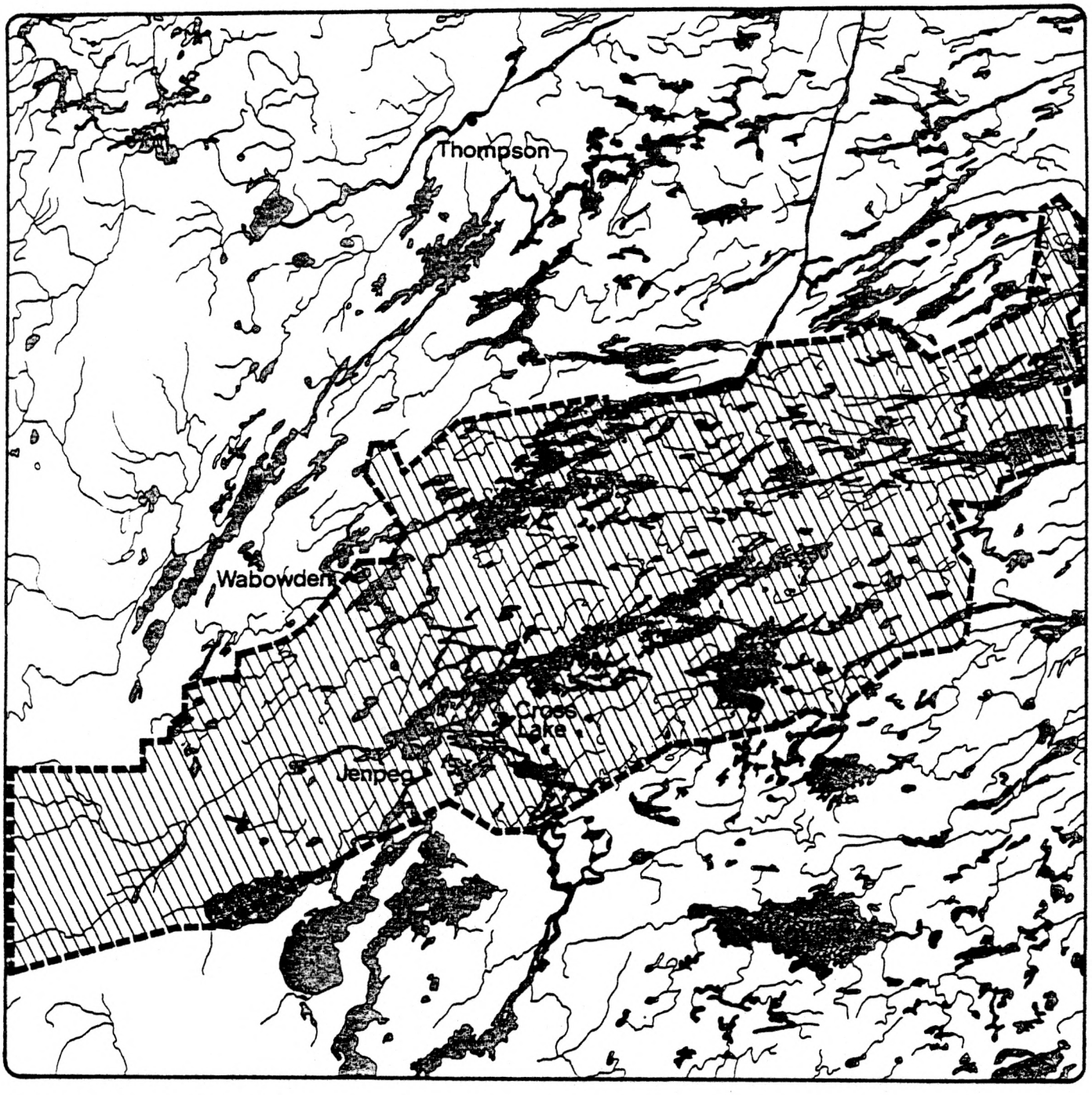
- 85' x 200' ice surface
- seating capacity 1,677, sewer and water included
- design completed by B B Steel Builders, Brandon
- four change rooms, kitchen, office
- community hall and stage

(d) Geological Survey* $ 50,000.00

- determine economic mineral potential of Cross Island and environs
- hire a consulting geologist to undertake sub-surface investigations

(e) Housing Oesign* $ 25,000.00

- using an architectural consultant, recommend two log lathe housing designs and servicing plans
- coordinate through the Band Housing Authority



Proposed Land Freeze Area

MILES 0 5 10 15 20
KILOMETRES 0 5 10 15 20

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Farr Witty
& Associates

Cross Lake Planning Study

Plan 6

(f) Playground Construction $50,000.00

- using local log material, construct 10 play units throughout the community as designed for children creative play

(g) Housing Evaluation Study $50,000.00

- investiage and categorize each house to determine suitability for service upgrading
- recommend an upgrading plan
- using an architectural consultant and a member of the Band Housing Authority to undertake evaluations

1982-83

(a) Vehicle Bridge* $4,000,000.00

- undertake design of a two way vehicle bridge between Cross Island and the mainland
- through the services of Mid-North Oevelopment Corp. contract out construction of the bridge

(b) Geological Survey* $100,000.00

- determine the location of economic mineral areas within the Cross Lake region
- provide opportunity for Band members to acquire skills or utilize existing skills in mineral exploration

(c) Material Warehouse $60,000.00

- through Mid-North Oevelopment Corp. construct a material warehouse for band storage
- storage building is required prior to major construction program to ensure that materials are managed and protected

(d) Tourist Lodge Study $20,000.00

- determine the scale, function and feasibility of a lodge on the Minago River Crossing site
- apply for study assistance through the Federal/Provincial Oestination Manitoba Program

(e) Survey 19B and 19C $15,000.00

- using E and A summer survey crew, demarcate IR 19B and 19C clearly on the ground prior to any development program
- provide control for airphoto interpretation program
- survey will resolve local concerns about accuracy of past survey

(f) Topographic Mapping IR 19B and C $12,000.00

- provide .5 metre topographic mapping for IR 19B and C as prelude to newtown design program

(g) Housing Service Program* $100,000.00

- begin major upgrading and service (water and waste) installation for suitable housing. (Phase 1 of 3)

(h) Forestry Training $25,000.00

- undertake forestry technician training to provide skills necessary to manage long-term forestry cutting operation

(i) Forestry Management Plan* $30,000.00

- using a forestry consultant and local forestry technicians complete a forest management plan for the designated forestry hold areas and other valuable forestry lands near Cross Lake
- the purpose of the plan will be to develop a long-term cutting program for the log lathe operation which will ensure continued production

(j) Alternative Housing Oesigns $15,000.00

- complete two additional log lathe housing designs for the Band Housing Authority

(k) Fire Protection* $220,000.00

- provide two fire trucks and small fire station
- provide training program for 2 full time and 10 volunteer fire fighters

(l) Upgrade Outdoor Recreation Facilities $30,000.00

- redevelop and refurbish 2 ball diamonds and outdoor hockey rink

(m) Garbage Disposal Program $120,000.00

- construct central garbage bins
- purchase garbage compaction truck

1983-84

(a) Local Services Feasibility* $80,000.00

- identify the type of services (e.g. shops, businesses) which have potential at Cross Lake and provide an outline of available funding, necessary training and program needs
- undertake preliminary feasibility assessment where desirable
- indicate required training and develop training program

(b) Agricultural Program $30,000.00

- provide training for interested band members in market gardening and related (hog) meat production

(c) Market Garden Development* $180,000.00

- examine market garden development needs
- develop a local market garden operation for production of most community vegetable needs

(d) Log Lathe Export Study $10,000.00

- investigate and identify the potential markets for export of log lathe housing
- determine marketing program and production needs

(e) Design Senior Citizens Home $15,000.00

- using log lathe construction technique design a 15 unit facility with potential for tripling capacity

(f) Construct Senior Home* $400,000.00

- through Mid-North Development Corp. construct the home

(g) Cultural/Adult Education Centre $500,000.00

- undertake the design and construction of a cultural centre for interim use as a band administration centre and cultural centre
- provide a cultural activity program for all age groups, library, art room, stage and hall, offices, adult education
- over time phase into cultural centre, only with sub-administration office

(h) Minago River Lodge $200,000.00

- design and construct a log lathe lodge with cabins for 20 - 40 people
- provide a small wayside campground and service centre for highway traffic

(i) Daycare Facility $40,000.00

- design and construct a log lathe facility for working mothers, single parents

(j) Design New Town* $40,000.00

- based upon the newtown concept, undertake a detailed design for roads, housing and services
- review with band members

(k) Design Service Installations* $200,000.00

- using professional engineers, complete a design for required servicing of the newtown.

(l) Housing Service Upgrading* $100,000.00 (Phase 2)

- include training for a local maintenance supervisor

(l) Garment Manufacture* $80,000.00

- through a training and production program develop a small garment manufacture operation which caters to local needs
- undertake in rental space available in the cultural centre

1984-85

(a) Expand Log Lathe Operation $100,000.00

- acquire additional forestry production areas using internal forestry, technician services
- begin log lathe production for export market
- develop marketing package for sale of building types

(b) New Town Access Road* $500,000.00

- locate and construct new town access road to provide initial access for new town construction program
- utilize Mid-North Development Corp

(c) Hog Operation $120,000.00

- in association with market garden operation begin hog production for local food source
- market to residents with potential supply to surrounding communities

(d) New Town Service Roads* and Servicing (Phase 1) $5,000,000.00

- install required servicing and roads as designed
- ensure that those responsible for future maintenance are also involved in construction/installation

(e) Childrens Summer Camp $100,000.00

- provide a summer access road and summer camp on Bear Lake for Cross Lake children

1985-86

(a) Market Garden Export Study $15,000.00

- determine feasibility of exporting market garden produce to surrounding communities

(b) Utik Lake Lodge Study $15,000.00

- determine feasibility of expanding the Cross Lake lodge operation to Utik Lake

(c) Extend Care Hospital $5,000,000.00

- construct a 20 bed hospital

(d) Housing Service Upgrading* (Phase 3) $100,000.00

(e) Rehabilitation Centre $100,000.00

- provide an on-reserve rehabilitation centre for residents requiring minor psychiatric assistance, alcohol related assistance

(f) Boys Home $150,000.00

- for problem children or children from broken homes who need special care and assistance on a temporary basis

(g) Band Administration Complex $350,000.00

- provide a permanent administration complex (i.e. move from temporary offices in cultural centre) in New Town area for band operation requirements

(h) New Town Commercial Complex $1,000,000.00

- provide central 20,000 sq. ft. mall for all new businesses in new town area as identified in local service feasibility study
- the complex will be self-supporting and provide an outlet for band member businesses

(i) New Town Recreation Centre $1,800,000.00

- provide a central recreation complex for the new town area including an arena, swimming pool and games room.

4.5.2 RELATIONSHIP TO NORTHERN FLOOD AGREEMENT

The following review suggests, but does not limit itself to, the articles of the Northern Flood Agreement pertinent for each of the identified capital projects.

1981-82

Recreation Complex

- as per Article 12.5.7
- in view of the severe impact of Jenpeg control and change in Cross Lake water regimes upon the traditional winter recreation program

1982-83

Vehicle Bridge

- as per Articles 12.5.6, 12.5.8, 22.4.5
- given the difficulty in utilizing the waterways as acceptable transportation means including boating and ferry, a year-round operational river crossing is needed.

Geological Survey

- as per Articles 16.5, 18.2 and Schedule "E"
- if community development is to be enhanced, alternative opportunities for community development will be essential. Opportunity to utilize mineral resources is one such requirement

Housing Service Upgrading

- as per Articles 6.1, 6.2, 12.1, 16.4, 16.5, 18.2 and 23.2
- the problems of deteriorated water quality, adverse impact upon traditional use of the river water for daily purposes requires that the internal water storage capacity of each house be upgraded

Fire Protection

- as per Articles 12.1 and 18.4
- with the serious low water levels community fire fighting will remain impractical until fire trucks are available

1983-84

Cultural Centre

- as per Article 5, 16.5, 18.2 and Schedule "E"
- as a result of adverse effects upon traditional lifestyles and culture, a cultural centre is required to maintain the cultural well-being of Cross Lake

Minago River Lodge

- as per Article 5, 3.2, 3.3, 12. 5, 7, 16.2 and 18.4
- in view of the severe impact of hydro development upon Cross Lake, alternative traditional resource activities need identification and development

Design Service Installations

- as per Article 5, 6.1, 6.2, 12.1, 12.1, 16.4 16.5 18.2 23.1 and 23.2
- since Cross Lake cannot function in its original form as a consistent supplier of high quality water, reliable transportation mode and food source, the need to locate along its shoreline is changed. Instead, the river poses problems for development. As a result, a new development area should be considered.

1984-85

New Town Access Road/New Town Service Roads and Servicing

- as per Article 12.1, 12.5.6, 16.5, 18.2 23.1 and 23.2
- the need to provide a new settlement area and associated access is justified by the major and detrimental affects of Jenpeg control upon the water regime of Cross Lake

Children's Summer Camp

- as per Article 12.5.7, 15.8.3
- the inability to travel as readily to traditional summer camps and the severe impact upon community recreational water activities, requires that a separate special children's camp be developed to provide an alternative summer recreation area and the means of conveying traditional skills

1985-86

Rehabilitation Centre

- as per Articles 12.1, 16.5, 18.4, 23.2
- since some residents have been adversely affected by hydro development through direct or indirect stress, a means of rehabilitation is needed

Band Administration Complex

- as per Articles 16.5 and Schedule "E"
- it is imperative that the Band work out of modern efficient offices capable of handling the volume work, part of which is caused by monitoring of the Flood Agreement

New Town Commercial Complex and Recreation Centre

- as per Articles 12.5.7, 16.5 23.1, 23.2 and Schedule "E"

4.5.3 PROPOSED IMPLEMENTATION STEPS

This planning document is only one tool which can be used to help achieve Band objectives. It should be viewed as flexible and a guideline only. This does not dictate development, but sets out in an orderly fashion the means of achieving Band goals. As Band goals change over time, so too should the plan be altered.

It is essential to the successful implementation of this plan that the Band Council diligently work toward plan adoption by ensuring government agency cooperation and NFC support. The spirit of the Northern Flood Agreement must not be lost. To assist in plan implementation, the following steps are proposed:

(a) The Band Council, if satisfied with the plan, should pass a Band Council Resolution endorsing the plan and recommendations contained within it.

(b) The Band should ensure that the Planning Coordinator is hired on a full-time basis. The Planning Coordinator should act as secretary to an appointed Implementation Committee.

(c) The Band Council should review a strategy with the NFC for purposes of tabling the plan for arbitration purposes.

(d) The Band Council should inform the Director General of Manitoba Department of Indian Affairs that the Cross Lake Band of Indians intends to adopt the plan as a working document. Further, the Director General should be requested to ensure that programs of the Department reflect the plan (but not be limited to it).

(e) The Planning Coordinator should hold several information/working sessions with the Departmental line supervisors.

(f) The Band Council should ensure that the 5 - year capital program is reflected in the Department of Indian Affairs budget.

(g) The plan should be annually reviewed by the Band Council.

4.6 PROPOSED ADMINISTRATION MECHANISMS

The major emphasis of the Cross Lake Planning Study involves substantial upgrading of infrastructure and general living standards to a level typical for other similarly sized communities in Manitoba. In addition, the significant detrimental impact caused by hydro development has required a separate administrative function to monitor and relate impacts of the hydro program. At the same time, greater emphasis upon economic self-sufficiency is stressed.

4.6.1 BAND COUNCIL PORTFOLIOS

To assist in the better management of all new proposed Band programs and development, a system of Council portfolios is recommended: Land Exchange, Hydro Liason, Economic Development and Band Services. Under each a special structure is proposed. Each major area would be headed by at least one Councillor with a minimum of two other band members.

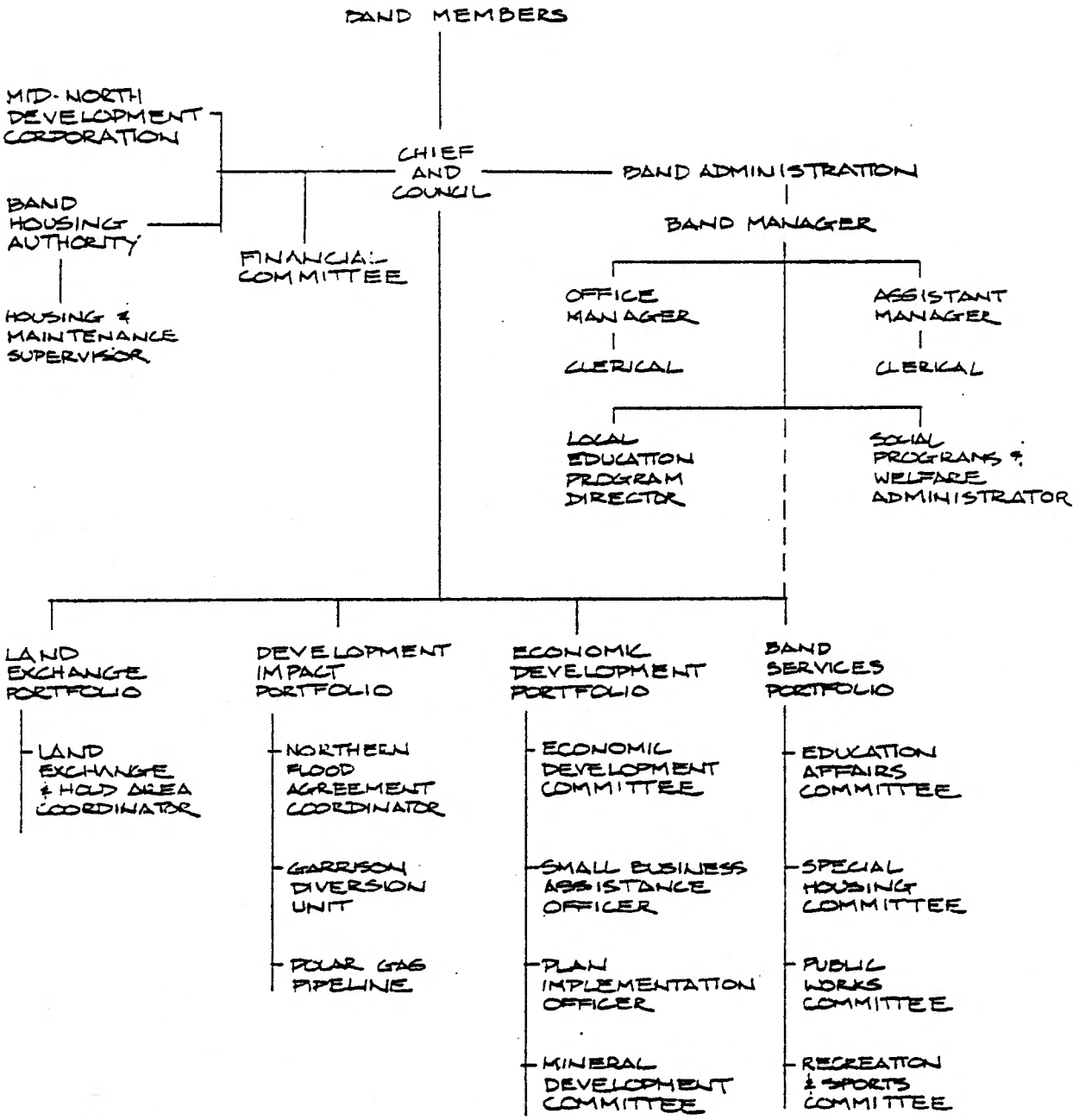
(a) Land Exchange Portfolio (One Councillor)

- to coordinate all land exchange negotiations relating to the Northern Flood Agreement
- to pursue status of IR 19D

(b) Development Impact Portfolio (Chief and Councillors)

- to continually monitor the Northern Flood Agreement in association with the North Flood Agreement Coordinator
- to monitor the progress of the Garrison Diversion Unit and maintain liason with MIB concerning GDU
- to monitor the Polar Gas Pipeline proposal

PROPOSED BAND ADMINISTRATIVE STRUCTURE



- to monitor any new development proposals which are capable of affecting the community

- to monitor the severity of impact caused by hydro development upon the community

- to meet with the Northern Flood Agreement participants

(c) Economic Oevelopment (Two Councillors)

- to coordinate all band-related economic development programs

- to supervise the plan implementation officer whose function is to coordinate all activities affecting the long-term development of the reserve and exchange lands. In addition, the plan implementation officer must ensure that the planning program is moving forward as defined with revisions being undertaken in a systematic fashion

- to supervise the small business assistance officer whose function is to define small business opportunities, available financing and to assist in business application and long-term managerial, accounting and marketing advice

- to coordinate the Mineral Oevelopment Committee. This committee will monitor on-going material exploration in the area and the degree of interest in mineral extraction

(d) Band Services Portfolio

- to coordinate all reserve delivery programs including existing services

- to coordinate the installation of all infrastructure such as sewer and water, recreation facilities

- to supervise the Band Housing Authority

In addition, an Employment Committee is proposed to supplement the existing Committee structure in Cross Lake. The purpose of this Employment Committee would be to monitor the economic and training initiatives to ensure Band member participation in the proposed development programs. This Committee should be composed of the Chief and two Councillors, the Band Administrator and two other Band members.

4.7 OPERATION ANO MAINTENANCE

In order for the major foregoing development items to be effectively maintained and operated, a significant O & M budget will need to be established. In order to ensure long-term O & M dollar availability, where possible, a userpay principle should be instituted. This principle, then, would require business operators to build into their business operation the costs associated with their use of community infrastructure and services. At the same time, band operated ventures should be administered so that any profits made are put back into the capital investment portion of the operation rather than subsidizing the O & M side of other enterprises.

4.7.1 ENERGY REQUIREMENTS

Reliance upon fossil fuel for community energy requirements should be restricted to the combustible engine. Heating should by by wood cut from local stands. Where possible, actual energy needs should be reduced by stimulating more efficient building and site related designs. Although adjacent to hydro production, the excessively high hydro-related energy costs are currently unacceptable as an alternative energy supply.

4.7.2 WATER SUPPLY AND WASTE OISPOSAL

Until a strong economic base is created in the community, the userpays principle will not be possible in the area of water supply and waste disposal. Rather, argument can be made for the fact that, until the regulation of Cross Lake water levels was instituted, the need for sophisticated water supply was non-existent.

4.7.3 ROAOS

No funds exist to cover the adequate maintenance of roads which were constructed under the Northern Flood Agreement Remedial Works program. It is estimated that $75,000.00 per year will be required to maintain the upgraded roads in an acceptable condition.

4.7.4 NEW FACILITIES

Too often, when northern communities have received assistance in the provision of new facilities, no long-term allotment of operation and maintenance funds has been provided at the same time. As a result, the communities are faced with facilities whose O & M requirements exceed local capability. Thus, it is essential in any new facility program that adequate long-term O & M funds be set aside by the facility supplier.

1. Introduction

This background report is a collection of all the pertinent material which will affect the long range policies and plans formulated for the Cross Lake Indian Reserves and environs. More specifically, this background report addresses Section 5 of Schedule "E" of the Northern Flood Agreement, which states:

> "the determination of physical and human development targets for each community shall require an assessment to be made of the principal physical, social and economic conditions of the community and its high unemployment rate, low standard of living and unsatisfactory infrastructure. This shall include an audit and evaluation of the community's potential productive capacity in terms of its currently idle, underutilized, underdeveloped and adversely affected natural, man-made and human resources."
>
> "Assessment results shall be disclosed and set out under the following headings:
>
> I - Description of community conditions and problems;
> 2 - Diagnosis of origin, causes and consequences ..."

1.1 PAST COMMUNITY STUDIES

Cross Lake is the epitome of a community which has a legacy of studies undertaken for a variety of purposes. A number of these studies have included community planning exercises. The majority of these studies have not been implemented or, if implemented, only to a limited degree. As a result, the community has a sense of unfulfilled expectations. Too often, studies have been completed and courses of action recommended without a concomitant commitment to budgeting and funding by senior levels of government. This community planning study is an attempt to break this pattern.

1.2 PURPOSE OF THE BACKGROUND STUDY

This background study pulls together the variety of factors which will directly affect any policy and program recommendations for the Cross Lake Band of Indians.

It is essential to the definition of a best case scenario for Cross Lake, as indicated in Schedule "E" of the Northern Flood Agreement, that all such necessary background material be collected, collated and analyzed. This background study sets out this material for such analysis. All recommendations in Section I "The Proposed Community Development Plan", are based on the discussions in this Section II.

1.3 STUDY PROCESS

The majority of information contained in this background section was obtained through the review of numerous past studies undertaken for Cross Lake. In addition, search of pertinent files held by the Department of Indian Affairs provided additional background information on the community. Contact was made and specific information requested from a number and variety of federal and provincial government agencies. In view of the large number of studies previously undertaken for Cross Lake, an attempt was made to integrate past studies, where possible, with current work. In this way, energies were able to be directed toward creative problem resolution and increased community involvement.

During the course of such work, where information gaps were identified, special emphasis was placed upon filling such voids by the use of original research. The area of resource capability analysis is an example of such work undertaken to fill an information void.

1.4 RELATIONSHIP TO THE NORTHERN FLOOD AGREEMENT

The Northern Flood Agreement was signed on December 16th, 1977, by the Northern Flood Committee, representing the five affected Indian Bands, including Cross Lake Band of Indians, the Government of Canada, Manitoba Hydro and the Province of Manitoba. The Agreement was intended to spell out the means by which the bands affected by the Lake Winnipeg Regulation and Churchill River Diversion Project were to be compensated and assisted.

The Agreement addressed several major issues, including future community, social and economic development. The Agreement specifically covered aspects related to land use, hold areas, community infrastructure, wildlife resources policy, planning policy and environmental impact policy.

Further, the Agreement set out a Schedule "E" Community Development Planning and Community Development Plan. Schedule "E" states that not only should the parties agree to jointly work towards a comprehensive Community Development Plan, but that

> "A Community Development Plan shall embrace the economic, social and physical circumstances of the residents ... and inject long range considerations into determinations of short term actions and requirements."

Therefore, it is essential that the Cross Lake Planning Study recognize the requirements of Schedule "E" in particular and the Northern Flood Agreement in general.

2. *History of the Area*

The Outlet Lakes have been occupied for some 10,000 years. Sites at Norway House, Molson Lake, Playgreen Lake and Pipestone Lake with traditional native hunting, trapping, and fishing residences suggest the use of East Channel as a water route by the Assiniboine and Cree from the Aspen Parkland to the Boreal Forest.

Although the history of use of the study area by original peoples exceeds any written accounts, initial records of the Cross Lake region were made by Henry Kelsey in 1690. After Kelsey's travels, the Hudson Bay Company established posts along Hudson Bay to attract fur trade from the interior. Thus, Cross Lake became a part of the Interior to Bay trade route which included travel between York Factory and the Saskatchewan River. In 1754, Anthony Hendy and in 1772, Matthew Cocking both mentioned Cross Lake in their journals. By 1773, some 50 to 70 Hudson Bay Company men had gone into the interior via Cross Lake (Gordon, 1921).

Known in Cree as Pemichikamow, or "Flowing Across", because the Nelson River flows across the lake west of the old settlement, Cross Lake first appeared on David Thompson's 1813-1814 map of the north. The route followed by the early traders and Indian people who traded the north to York Factory, included movement up the Saskatchewan River, to the Summerberry River, then via portage to Moose Lake, down the Minago River to Cross Lake, from Cross Lake to Deer Lake and northeast to Bigstone, eastward down the Fox River to the Hill River to the Hayes River and down to York Factory. Samuel Hearne, who also travelled through Cross Lake, recorded that there were two major water routes branching at Cross Lake, northwards to Deer Lake and the Hayes River and eastward to the Carrot River toward Oxford Lake.

In 1795-96, a temporary Hudson Bay Company post was built on Cross Lake. The Location remains unknown. For the next 50 years, the post was abandoned by the Hudson Bay Company. Meanwhile, the Swampy Cree Indians of the region continued to move through and within the region. These nomadic people did not settle in any one location but continued to follow their traditional movements as modified by the fur trade.

In 1849, the outpost at Cross Lake was again rebuilt for a few years to be abandoned again until 1884. The outpost at Cross Lake was a sub-post for the major Hudson Bay Company post at Norway House. In 1884, a larger permanent post was established at Cross Lake to serve the growing semi-permanent population of native people.

Because of the focal point of Cross Lake along the traditional north/south and east/west trade routes, the Indian people who located at Cross Lake originatedfrom York Factory, Fort Churchill, Nelson House, Norway House, Oxford House and Moose Lake.

By 1926, there were 450 Treaty Indians, 35 Metis, and 40 whites at Cross Lake (Bortleman, 1926). During this period, gardening became an important component of settlement life, as a supplement to the traditional lifestyles of the native people.

2.1 HISTORY OF THE RESERVES

In the early 1870's, the Government of Canada concluded that it was in the Canadian Government's interest to secure the surrender of the Indian title to those lands lying north of the Province of Manitoba. Between 1873 and 1875, the details of the proposed treaty were determined by officials in Ottawa and Winnipeg. Thus, "in 1875, Lieutenant Governor Alexander Morris and James McKay were appointed Treaty Commissioners to negotiate for the surrender of the Indian aboriginal title to the area around Lake Winnipeg" (Abramson, 1979). Upon arrival at Norway House, the Commissioners discovered that there were two separate groups living in the area.

These were the Norway House and Cross Lake people. As a result, two separate treaties were signed. The Cross Lake Band requested that their reserve be set aside where they were living at Cross Lake. The proportion of land to be allocated was 160 acres per family of five or 32 acres per band member. A total of 5,760 acres were surveyed for the Cross Lake Band in 1877. Of this total, 5,658.85 acres included Cross Island and 102.45 acres of a portion of a smaller island northeast of Cross Island. In addition, the surveyor also surveyed three lots opposite Cross Island. Of these three lots, two were noted on the survey drawings for the Chief (Tapastunum) and a Band Councillor (Garriock).

In 1913, 1,064 acres of the southwest corner of Cross Island were surrended to the Dominion in exchange for 1,363 acres of land on the mainland. This 1,363 acres became known as #19A. In 1924, the 1,064 acres of surrendered land on Cross Lake were reinstated to the reserve when the Crown deemed them unneccessary for its own use. Confirmation occurred by Order-in-Council P.C. 1751, on August 5, 1930. Indian Reserve parcels 19A, 19B and 19C, on the mainland, were also surveyed in 1913 by the Chief Surveyor of the Department of Indian Affairs. Parcels 19B and 19C lie to the southeast and 19A to the northeast. When the survey of B and C was completed in 1914, some confusion still existed concerning the status of Lots 2 and 4 within 19A, which the Hudson Bay Company claimed as deeded land. In addition, Sections 13 and 14 to the west of 19A were a point of confusion. Confirmation was to wait until all three parcels could be surveyed at one time.

The issue regarding Lots 2 and 4 began in 1877 when Duncan Sinclair surveyed the reserve and

in addition, surveyed Chief Tapastunum's lot (lot #4) which he marked as "Chief" and George Garriock's lot (lot #1) which lies to the east and south of lot 2, the Hudson Bay lot. In 1882, Chief Tapastunum wrote to the Department of Indian Affairs (DIA) for permission to exchange George Garriock's lot for the Hudson Bay lot, at the request of the Hudson Bay Company.

However, in 1883 while investigating the land exchange, the Bay said it did not want the exchange as it was not beneficial to the Band, the Crown also said "no". In 1885, the Hudson Bay Company wrote the Inspector of Indian Agencies and requested that a parcel of land surveyed for "Garriock" had some of their buildings on it and requested it be returned. At the point, DIA sent a representative to Cross Lake to arrange the surrender of land and found that the Bay had been referring to the Chief. McKay, the DIA representative referred to the 1882 exchange proposal believing the consent of the Chief and Council had been given and exchanged for lot 2 for lot 4 with the signature of the deceased Chief's son (Jacob Ross), 3 other family members and 3 councillors. Therefore, despite the 1882 exchange and 1885 exchange referring to two different parcels of land, the final exchange ended up with lot 4 belonging to the Hudson Bay Company and lot 2 going to the Reserve.

In 1911, Jacob Ross Tapastunum, the deceased Chief's son, claimed the 1885 Agreement was a fraud. The claim has never been proved or disproved despite an investigation into the matter. Current legal opinion has suggested that the Cross Lake Band pursue this matter for final resolution.

In 1917, additions to the west of #19A in Section 13 and 24 were requested by the Band but by 1924, after much confusion, it was discovered that section 24 had always been considered by the Department of Indian Affairs as part of the 5,802 acres allotted IR #19. This section of land had originally been shown as an island and later was designated on the settlement plans as mainland. In 1926, B & C were confirmed and in June 1933, #19A was finally registered to the Band under the Real Property Act. The total area of the Reserve land is as follows:

IR #19	4,802.10 acres
IR #19A	1,363.00 acres
IR #19B	1,832.00 acres
IR #19C	200.00 acres
IR #19A addition (Section 13 and remainder of Section 24)	86.00 acres
	9,283.10 acres

In addition to 19, 19A, 19B and 19C, the Cross Lake Band also selected IR #19D. The history of Indian Reserve 190 began in August 1926 when the band requested additional reserve land to provide for the increased population. By the Treaty Entitlement Agreement, a total of roughly 18,000 acres should have been allotted to the reserve for its expanded population, compared with only 9,300 acres of actual reserve.

In March 1928, the Band selected a group of islands west of Cross Island comprising about 9,800 acres and sent a map to the Department of Indian Affairs. This was followed in October, 1928 with a Band request for confirmation. A new map was drawn in April, 1930 showing IR's #19 and 19D and sent to the Chief Surveyor of Indian Affairs. At the same time, in July 1930, the Federal Government under the Transfer of Natural Resources Act, handed over the jurisdiction for Crown Land to the Provincial Government. As a result of the unfinalized status of 190, the Provincial Government in 1932, disputed the selected lands of 190 as reserve land claiming it was not properly surveyed. The Federal Government made various attempts to maintain the 190 land as part of the reserve including the fact that the Transfer of land had been prior to 1930, and was therefore a federal jurisdiction. In addition, the Federal Government claimed that it had expended monies on improvement of land, but since no federal funding had been used for land improvement, Manitoba rejected the 19D claim. The Federal Government determined that the only solution was to give up the Dominion's claim on the land and arrange an exchange between the Band and the Province. This was proposed in 1938 with no Provincial response.

In 1940, after still no response to #19D's status, the Federal Government by Order-in-Council revoked the land set aside as 190. The Band was not officially notified of this until 1979, despite a number of inquiries. As a result, it would appear to be quite clear that the Cross Lake Band of Indians has a claim to some 9,800 acres of land, commonly known as 190, west of Cross Island (Map 3). The Federal Government position is one which supports the Cross Lake Band's claim to 190. The Provincial Government continues to dispute this claim.

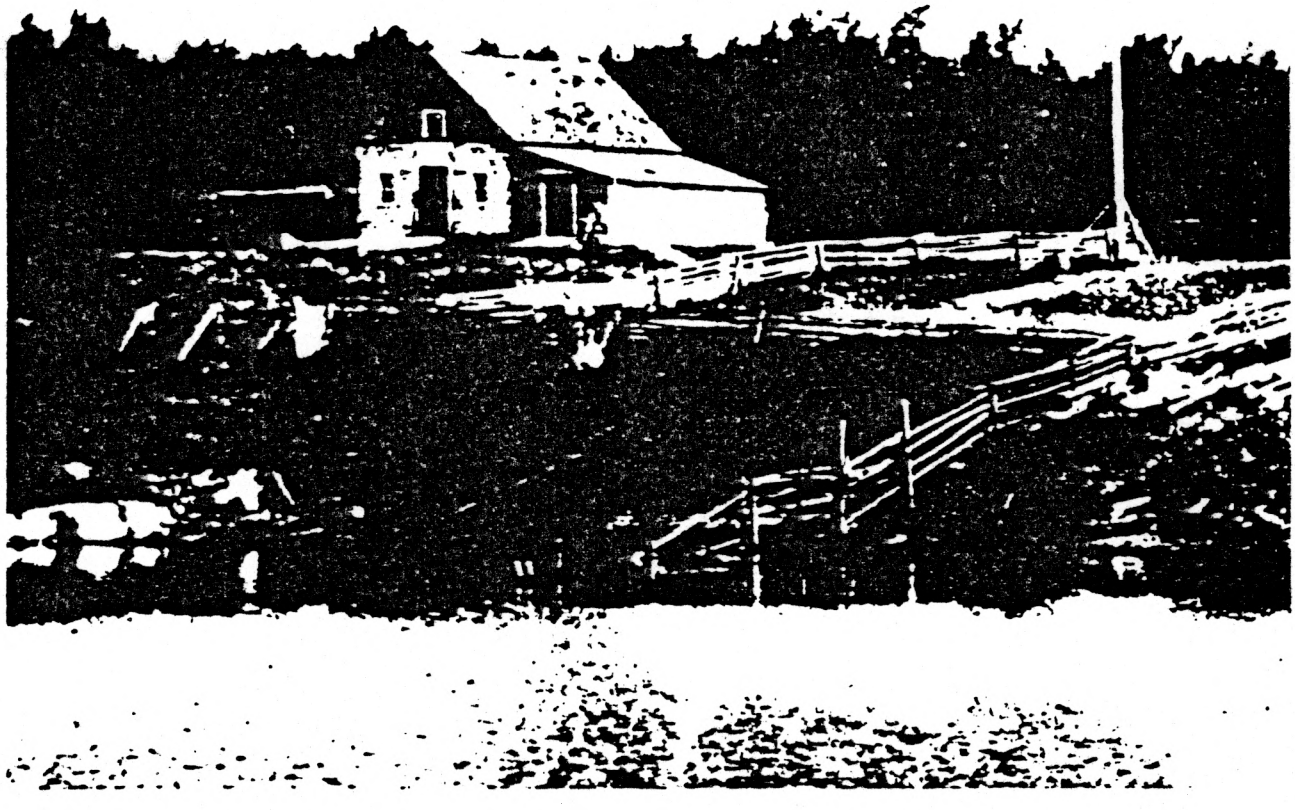
Conclusions

- that the Cross Lake Band of Indians has a legitimate complaint with regard to Lot 2 and Lot 4 of IR 19A.
- that the Transfer of Resources Agreement

Act of 1930 disrupted the on-going process of transfer of IR 19D to the Cross Lake Indian Band
- that the Cross Lake Band of Indians has a clear right to the fulfillment of previous Government of Canada committments to turn IR 19D over to the Band
- that the Province of Manitoba has clearly obstructed the process of legitimate treaty fulfillment with regard to IR 19D

Recommendations

- that the conflict over Lot 2 and Lot 4 be finally and clearly resolved
- that the status of IR 19D be adjudicated in order for the Cross Lake Band to plan future use of these or alternative lands
- that the history of Cross Lake, its people and culture be recorded in a form which can be utilized as a major component of the local educational system



Cross Lake circa 1919
Courtesy Hudson Bay Company Archives

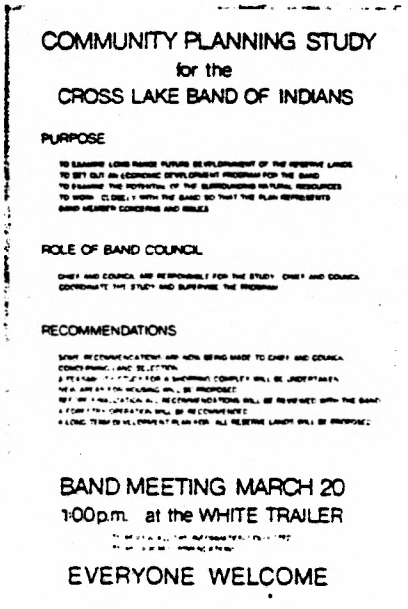
3. *Community Participation Program*

The community participation program for Cross Lake has been an on-going process involving a variety of inputs.

Three major programs were utilized to determine the concerns, issues and attitudes of the Band members. The initial input utilized was that which ensured Band Council involvement and information exchange. The Council defined many of their major concerns and issues for the community. In addition, the Council priorized those issues defined by Band Members.

A second factor which lead to community participation was the appointment of a local community planning coordinator. This coordinator was selected by and reported to the Band Council. The coordinator provided a "pulse on the community" for the planning consultants.

A third community participation input directly involved the Band members. Members attended six band meetings to indicate major community concerns and issues and desired land exchange areas and comments on the study. In addition, a community questionnaire was completed in the community. The survey sampled 20 percent of all households.



COMMUNITY PLANNING STUDY
for the
CROSS LAKE BAND OF INDIANS

PURPOSE

ROLE OF BAND COUNCIL

RECOMMENDATIONS

BAND MEETING MARCH 20
1:00p.m. at the WHITE TRAILER

EVERYONE WELCOME

Poster placed in Band Store

Also, in an attempt to keep Band members informed of the community planning study, several articles were placed in the local community education newsletter. As well, an information display/ panel was developed for the Cross Lake Winter Festival. This was a coloured panel summarizing the community planning study and land exchange considerations.

3.1 COMMUNITY MEETINGS

At three of the several community meetings, band members were asked to outline their ideas on certain items.

(a) Issue Based Meeting

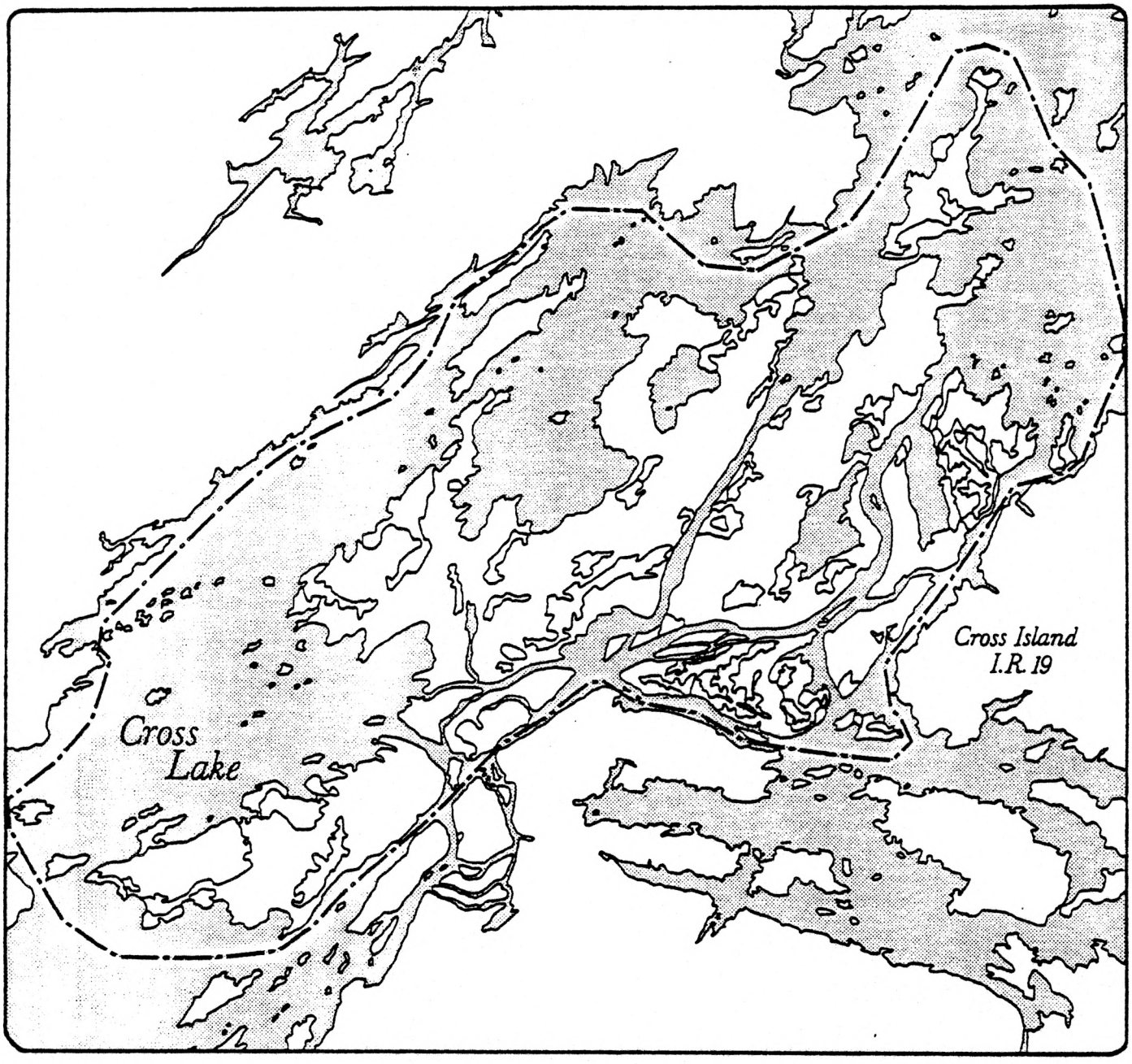
At a nominal group theory application, band members were asked to respond to two questions.

List the major issues in Cross Lake

- school transportation costs
- existing poor water supply and truck delivery service
- fluctuation in lake water levels
- school construction problems
- no all-weather road
- health conditions
- current law enforcement
- lack of facilities
- lack of recreation
- involvement in community planning
- employment
- utilizing local human resources
- use of outside help in local road construction
- cost to use local ferry

What concerns do you have for the future of Cross Lake

- Natural Resources
    - water hampered by hydro effects:
        - commercial fishing
        - trapping
        - wildlife
    - timber destroyed by fire
    - mineral surveys
- Education
    - no technical or vocational school
    - lack of responsibility from Indian Affairs
    - no senior high school
    - need more local people trained
    - not enough counselling for Junior High
- Health
    - need qualified and dedicated nurses and doctors
    - need full time dentist
    - better medical prescriptions
    - more boarding space in hospital



I.R. 19D

FEET 0 100 400

METRES 0 50 100

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Fair Witty
& Associates

Cross Lake Planning Study

3

- sanitary jail conditions
- better water delivery
- sanitary water supply
- garbage pick-up required

- Law Enforcement

  - for juvenile delinquents
  - less police harassment
  - training for local constables

- Housing

  - lack of housing and amount of money for new housing
  - housing material
  - presence of old buildings

- Road and Bridges

  - lack of vehicle bridge
  - lack of all-weather road
  - road maintenance

- Communication

  - postal service
  - communication equipment for trappers

(b) At a second meeting, band members were asked to review the land exchange recommendations. The consensus at the meeting was that the Sand Bay, Whiskey Jack Landing and Minago River crossing be applied for as exchange compensation.

(c) A meeting in March reviewed the areas which appeared most suitable for development, as well as the desirability of proceeding with a band commercial complex utilizing trailers from Jenpeg. Band members at this meeting indicated their desire to develop IR 19B and 19C for future residential development. Band members pointed out that both reserve areas were formally inhabited prior to resident relocation to IR 19 and 19A. A consensus of opinion indicated a desire to create a new town centre at IR 19B. There was general agreement that a band commercial complex should be located in IR 19B, but that the Jenpeg trailers not be utilized.

(d) In May, a meeting was held to review the potential development concepts for 19B. Band members felt that a town centre with associated residential, industrial and institutional activities was essential. The band members also indicated areas of employment/industry interest. These were:

- garage for self-repairs
- another bakery
- sawmill
- traditional uses
- garment making
- traditional item manufacturing (e.g. snowshoes)
- barber, hairdressing
- laundromat, dry cleaners
- electrical repair
- carpenter shop
- upholstery
- handicraft

The meeting clearly emphasized the need to provide adequate training programs for any such endeavors.

(e) Detailed Proposal Review

The proposed five-year capital development program and development summary were reviewed with band members in a final meeting in July.

4. *Northern Flood Agreement*

As a result of major impacts caused or expected to be caused by the Lake Winnipeg Regulation and Churchill River Diversion Project of Manitoba Hydro, negotiations were held between affected communities, Manitoba Hydro, the Province of Manitoba and Government of Canada to determine a mutually agreeable process:

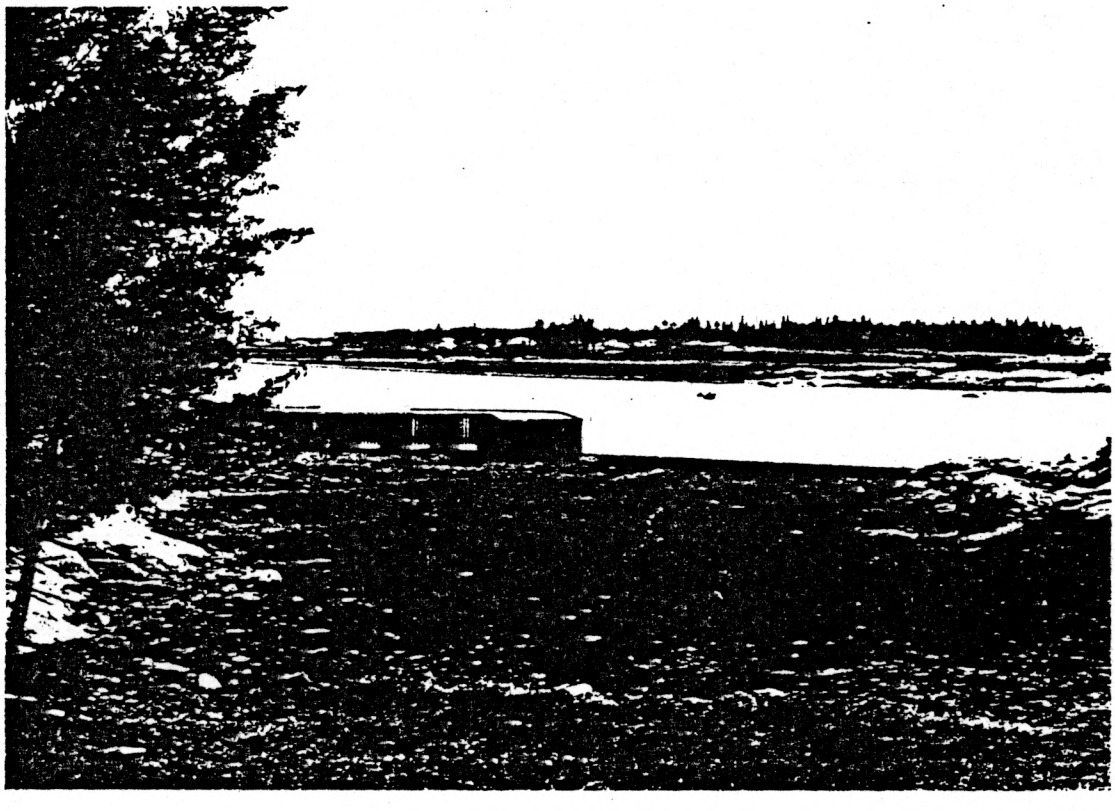
> "To ensure that all persons as defined herein, who may be, or have been, directly or indirectly, adversely affected by the Project shall be dealt with fairly and equitably." (Northern Flood Agreement)

Thus, the five Reserves of Cross Lake, Norway House, Nelson House, Split Lake and York Landing formed the Northern Flood Committee which represented Treaty Indian interests. On December 16th, 1977 the Northern Flood Committee, Manitoba Hydro, Province of Manitoba and Government of Canada signed the Northern Flood Agreement. The Agreement attempted to set out compensation for known impacts arising as a result of changes in the water regime. The Agreement went on to state, however, that:

> "Uncertainty as to the effects of the Project, with respect not only to the Project as it exists at the date of this Agreement but also as it may develop in the future, is such that it is not possible to foresee all the adverse results of the Project nor to determine all those persons who may be affected by it, and therefore it is desirable to establish through the offices of a single arbitrator of a continuing arbitration instrument, to which any person adversely affected may submit a claim, and as well as to fully empower such arbitrator to fashion a just and appropriate remedy."

4.1 RELATIONSHIP OF THE AGREEMENT TO THE COMMUNITY DEVELOPMENT PLAN

The Northern Flood Agreement consists of twenty-five articles and eight schedules. Several elements of the Agreement are of particular relevance to community planning. For instance, the Agreement allowed for the establishment of a special Corporation (known as the Neyanun Development Corporation) to create employment and economic advancement for the Indian people in the five bands affected by the Hydro Development Project. The funds for the Neyanun Corporation were part of the compensation monies forthcoming from



Example of 1980 low water and effect upon boating

Manitoba Hyoro. The Neyanun Corporation provides low interest loan funding for worthy business enterprises on the five reserves. The Corporation is responsible to the Northern Flood Committee.

Article 3, Land Exchange, is another important element of the Agreement. This Article sets out the means by which those Reserve lands affected by an increase in the water regime and required by Manitoba Hydro for its operational purposes can be exchanged on a 4 to 1 basis. This means that for every acre of Reserve land affected, the Province of Manitoba must provide four acres of Crown land as compensation. Such land is to be free of any emcumbrances. The process for such exchange involves the Band submitting desirable areas to the Province for review to determine if any encumbrances exist. In the case of Cross Lake, all Reserve land below 690 feet a.s.l. was to become part of the Manitoba Hydro easement. Further, Article 2 indicated that water levels at Cross Lake would not exceed 687 feet a.s.l.

Another important section affecting the community development plan relates to Land Use as set out in Article 4. This article specifically states that:

> "Manitoba agrees to withhold from any other use and to set aside for each Band a substantial area of land (the 'hold area') which is specifically defined . . . for a 5 year selection period."

The article further states that:

> "The selection period may be extended as necessary to ensure that the Band has a reasonable opportunity to investigate, consider, obtain funding for, and implement such developments and uses as may be feasible."

The intent of these 'hold areas' is to ensure that the affected Reserves have a broader resource base to facilitate greater economic development opportunity.

In an effort to regulate the water level of Cross Lake, Article 10 suggests that a control may be appropriate for the outlet area of Cross Lake. Such a structure would permit a regulated water level on Cross Lake.

Article 12 sets out the means by which community infrastructure can be

> "carried out in conformity with the reasonable requirements of a specific physical development plan adopted by resolution of a Band Council."

More specifically, the article states:

> "without limitation, it is contemplated that measures may be required:
> - to protect and/or relocate roads and houses and other structures,
> - to provide alternate recreational opportunities or facilities,
> - to provide alternative transportation facilities."

A mechanism for capitalization of a fund to provide for such infrastructure is discussed in Article 12.

The Wildlife Resources Policy, as set out in Article 15, defines the Community Trapline Zone as the local "Resource Area" for food supply, income-in-kind and income. In addition, the article establishes grounds for the creation of a Wildlife Advisory and Planning Board which will advise on wildlife management requirements.

Of special note is Article 16 which indicates the means of defining and fulfilling a "Planning Policy" for the affected communities. For instance, Article 16 states that:

> "Such plan shall be prepared and coordinated with a view to enabling the communities to provide continued opportunity to carry on their traditional lifestyles to the maximum extent practical to deal with social and economic problems that may be identified to take advantage of opportunities that may be identified and to recommend the practical means that may be available for implementation of the Plans formulated."

Article 16 also indicates that:

> "the principles reflecting the objectives and the methods to be used in achieving those objectives (should). . . relate to the Canada-Manitoba Northlands Agreement, and shall be followed in the development, coordination and implementation of Community Development Plans affecting the subject Reserves."

With regard to employment and economic benefit, Article 18 clearly indicates that:

> "It is in the public interest to employ, to the maximum possible extent, residents of the subject Reserves in all works and operations related to the Project and to implement forthwith practical measures necessary to achieve that objective, including opportunities for education, training, and particularly on the job training of any able and willing resident."

Further, Article 21 calls for the creation of an Employment Task Force to achieve the objectives set out in Article 18. Although the Articles set out the parameters within which concerted community development action programs can take place, it is within Schedule "E" Community Development Planning and Community Development Plan that the

specific requirements of community development is set out. Schedule "E" states:

> "The Community Development Plan shall serve as a policy coordinating instrument, setting forth the best case community development scenario and joint action program for the eradication of mass poverty and mass unemployment and the improvement of the physical, social and economic conditions and transportation."

Schedule "E" further states that:

> "The Community Development Plan will be developed in concert with the ideas and aspirations of the residents of the communities. . ."

It continues by setting out specific guidelines for the actual "scope and content of the development plan." For instance,

> "a community development plan shall embrace the economic, social and physical circumstances of the residents of the five communities, and any other narrative, text or illustration required to clarify goals, objectives, policies, programs, targets, dates etc., and to inject long-range considerations into determinants of shore-term actions and requirements.
>
> To the extent possible and feasible, both planning exercise and plans shall embrace the considerations and requirements spoken to in the Manitoba Planning Act of 1975. Additionally, each part of the Development Plan shall specify the authority that can address appropriately the funding and implementation of all features of the plan."

Schedule "E" also sets out the types of subject headings required to discuss these aspects.

4.1.1 RELATIONSHIP TO THE MANITOBA PLANNING ACT

Since Schedule "E" of the Northern Flood Agreement very specifically makes reference to the Manitoba Planning Act of 1975, it is essential that the requirements of this Act be reviewed. Although subsequently updated since 1975, the Planning Act of 1975 sets out an unmodified discussion of a development plan. It states:

> "A development plan shall contain,
>
> (a) statements of aims, objectives and policy with respect to some or all of the following matters
>
> (i) the development and use of land and other resources,
> (ii) the conservation, management and improvement of the physical and social environment,
> (iii) the control and abatement of all forms of pollution or activities deemed to be detrimental to the natural environment,
> (iv) the preservation, protection or enhancement of areas of land, buildings and structures by reason of their historical, archaeological, geological, architectural, environmental or scenic significance,
> (v) proposals relating to the use, changes in use or in the intensity of use of residential, commercial industrial, recreational and open spaces, institutional and other activities on or affecting land.
> (vi) the provision of public services and facilities including,
> a) sewage collection, treatment disposal,
> b) water supply and distrubution
> c) garbage disposal
> d) educational and cultural institutions
> e) recreational facilities, parks, playgrounds and other public open spaces
> f) fire and police facilities
> g) transportation and communication facilities
> h) facilities for the provision of health and social services,
> i) preservation of buildings and sites of historical interest. . .
> (vii) The spatial distribution of residential development, and the renewal, rehabilitation and improvement of neighbourhoods, and urban cores,
>
> (b) a 5 year capital expenditure program in accordance with section 561 of the Municipal Act (Sec. 27 (4))."

4.1.2 RELATIONSHIP TO THE STRATEGY FOR DEVELOPMENT OF NORTHERN MANITOBA

Pursuant to Article 16.5.4 and Article 14.3, the Strategy for Development of Northern Manitoba (1976) should be viewed as a major objective for the Community Development Plan. Intent of the strategy was:

> "to assess the problems, articulate clear goals for public sector policy and to indicate how those goals might be met."

The strategy went on to establish several specific objectives.

> "1. That the main thrust of government policy in the North will be directed to the promotion of more rapid economic development, to the expansion of employment opportunities in the North outside the enclave sector and to the guaranteeing of a much improved minimum standard of living for all Northerners regardless of location or status.

2. That the economic development strategy to be followed will be that of converging local resource use with local demands and needs to cut down on costly and unnecessary two-way flow of goods and to build up a strong northern economy with extensive backwards and forwards linkages and economic activities which maximize local value added.

3. That the identification and development of these opportunities, will be the object of an ongoing annual planning exercise at both Provincial and community levels.

4. That the scale of investment opportunities should, as far as possible, be such as to facilitate local ownership and control at the community level.

5. By providing for extensive community ownership and control over development projects and for the continuous identification of investment opportunities much greater retention in the North of surplus generated in the North will be assured. . .

6. That a minimum level of services will be defined for all Communities in the North and a minimum standard of living defined for all families in the North. Programmes will then be planned for the attainment of these targets over a specified time period. . .

7. That more strenuous efforts will be made to give interested Northerners every encouragement and aid in securing and retaining jobs in the civil service and in the large mining and forestry complexes in the North. Nevertheless, as far as possible Northerners should have the freedom to choose between these opportunities with local community based job opportunities."

4.1.3 RELATIONSHIP TO THE NORTHLANDS PROGRAM

As set out in Articles 16.5.4 and 14.3, any Community Development Plan should recognize the objectives established in the Northlands Agreement. For instance, the General Development Agreement (1974) stated that a prime objective was:

> "to encourage socio-economic development in the northern portion of Manitoba to provide the people of the area with real options and opportunities to contribute to and participate in economic development, to continue their own way of life with enhanced pride and purpose and to participate in the orderly utilization of natural resources."

The General Development Agreement went on to indicate that:

> "In northern Manitoba, economic and socio-economic development will be broadly pursued to narrow the disparities between the remote and urban economies by providing the people of the area with real options and opportunities to contribute to and participate in the Manitoba economy and community, to continue their own way of life with enhanced pride. . ."

In 1976, a Subsidiary Agreement was signed between Canada and Manitoba. This Canada-Manitoba Northlands Subsidiary Agreement defined several major program thrusts including Sector A - Resources and Community Economic Development, Sector B - Human Development and Community Services, and Sector C - Transportation and Communication. The Agreement noted that:

> "Northern Manitoba is at a critical stage in its development, both in terms of the future pattern of utilization of its resources, and the role of Native northern people in the future economic and social life of their region. Current and projected major development projects in mineral extraction and processing, hydroelectric generation, forestry, transportation, tourism and the service industries will have a substantial economic and social impact on the region. The benefits of these developments have traditionally not been fully enjoyed by the Native industrial sectors which provide a total of 15,000 jobs. Those 800 are overwhelmingly employed in semi-skilled and unskilled jobs which provide low income levels.
>
> This situation provides a major development opportunity for the people of northern Manitoba, with potentially a wide range of options to participate in the development of their region, both through a new life style in the industrial society or through the retention of their traditional way of life in close association with the utilization and management of natural resources. It is imperative to the future well-being of northern people and to the orderly development of their region that everything possible continue to be done to make these options and opportunities real and within the grasp of the present and future northern generations."

It is evident that the Northern Flood Agreement through linkage with other established policies, provides a strong foundation for the long-term development of Cross Lake. Any development undertaken for Cross Lake must recognize the importance of the Agreement as a guideline for community planning.

4.2 SUMMARY OF TRITSCHLER REPORT

The Commission of Inquiry to Manitoba Hydro (The Tritschler Report) (December 1979) outlined what it felt to be the open-ended value of the Northern Flood Agreement. Acting on behalf of the Manitoba Government, Tritschler reported that the Agreement could present major financial obligations to Manitoba through what he felt was inadequate concern by Manitoba Hydro for the implications of the Agreement. For instance, Tritschler wrote:

> "in view of the long-term nature of the Agreement (with the provision of capital funds for development and remedial works), it is disturbing that even at present none of the parties has an accurate assessment of the probable cost of its implementation (p. 218)

He went on:

> "the cost of implementing this Agreement was not, and has not yet, been adequately determined. The mission to do so prior to concluding settlement is a perplexing oversight." (p. 462)

Obviously, from the community point of view, such statements verify the belief that the Agreement represents a clear means of obtaining full compensation.

4.3 MODIFICATIONS TO AGREEMENT

Over the past two years, the full intent of the Northern Flood Agreement appears to have been modified by the Province of Manitoba in several areas. Two areas of modifcation which directly affect long-term community planning include (1) the criteria for acceptable land exchange and hold areas and (2) the lack of emphasis upon the objectives of the Employment Task Force.

Under Article 3 "Land Exchange", land could be granted to affected bands in an exchange rate of 4 to 1 acres for land provided Manitoba Hydro. Such land was to be "unallocated, unemcumbered and unoccupied."

After requesting some of its desired land exchange areas, the Cross Lake Band was advised that Manitoba Hydro and Manitoba Department of Highways were opposed to some of the requested land because they wanted the "right" to use gravel resources within the selected area. Prior to this request, these lands were not demarcated as allocated, encumbered or occupied. Only after the request was made were the lands considered to have an undefined interest. This interpretation of a valid interest requires clarification to ensure that the requesting bands are not placed in a untenable position.

"Hold" areas, as outlined in Article 4, have been defined by Manitoba in specific area terms such that hold areas should not exceed ten times (10 x's) the estimated area of new land to be transferred to the band nor the length be greater than two times its width. In addition, the Province of Manitoba has indicated its intention that hold areas avoid all areas where timber interest has been expressed. Further, Manitoba has expressed its intent to refuse to transfer mineral rights with hold areas. These provincial assumptions seem at odds with the intent of the Agreement.

The Employment Task Force was established to ensure that, if Hydro development was to proceed, it would at least provide local employment opportunities. Although a major objective of the Employment Task Force was to ensure training to maximize local employment in future development, the Task Force concept has not been given adequate support. If long-term planning is to be successful, then concomitant commitment to the Employment Task Force is essential.

4.4 THE NORTHERN FLOOD COMMITTEE INC.

In order for the five affected Indian Bands to effectively deal with the impact of Lake Winnipeg Regulation and Churchill Diversion Project, a common body was formed. This body is the Northern Flood Committee Inc. The Committee is run by a Board of Directors composed of the five chiefs or their delegates. The Northern Flood Committee has provided on-going advice to the five communities. It also manages Neyanun Development Corporation.

Within each of the five communities, a full-time Northern Flood Coordinator provides a liason between the Northern Flood Committee, the community and Chief and Council. This Northern Flood Coordinator is responsible for differing tasks within each of the communities. In Cross Lake, the coordinator continually examines local needs, processes claims and initiates discussions concerning land use and land exchange. The Cross Lake Coordinator was closely involved in the community planning study.

4.5 PROBLEMS OF IMPLEMENTATION

The realities of implementation of the Northern Flood Agreement are such that the parties appear to require arbitration for all items of significant interpretation. Little cooperation seems evident in the past discussions of the four parties. For instance, specific items under the Agreement, such as the Employment Task Force (Article 21), are simply not being fulfilled within the intent of the Agreement.

In addition, although the Department of Indian Affairs, on behalf of the Government of Canada, is the designated trustee for Indian people, the Department of Indian Affairs has shown little incentive to initiate a strong and formal role in the process of Agreement implementation. It is also clear that the relationship and role between Manitoba Hydro and the Province of Manitoba requires a greater degree of clarification in regard to the responsibilities of each in terms of Agreement Implementation.

Of particular concern is the current inability of the band to collect on funds outstanding through the remedial works agreement for services rendered by the band. As a result, the band has had difficulty meeting its day to day operating needs. It is essential that the process of payment for services rendered to implement the remedial measures portion of the agreement be more speedily processed. Unless this happens, limited Band resources, both financial and human, will be further disrupted.

Conclusions

- that the Northern Flood Agreement sets out a very clear direction for community planning at Cross Lake
- that the Northern Flood Agreement establishes the role for the Provincial and Federal Governments in any long-term socio-economic development at Cross Lake
- that the parties to the Agreement do not appear to be interpreting the Agreement in a common fashion

Recommendations

- that the parameters for community planning, as defined by the Northern Flood Agreement, serve as a basis for the Cross Lake planning study
- that the Cross Lake Band pursue the application of the policies and objectives as set out in the Northern Flood Agreement
- that the Governments of Canada and Manitoba give free recognition to the commitments made to assist Cross Lake in its future economic and social well-being.

5. *Existing Land Use*

The present community of Cross Lake is scattered along the edges of Cross Lake within three main areas. These areas are: the shoreline of IR #19A (Saggitawack); the east shore of Cross Island (Wapak and Natamik); and the west shore of the mainland between mission point and #19A.* An old community garden, houses and sawmill used to exist farther south on the shoreline of IR 19B.

5.1 CROSS LAKE RESERVES (MAP 4, 5)

5.1.1 HOUSING

Within the reserve lands of Cross Lake, there are approximately 300 houses. Although a housing survey of each was not possible, the community questionnaire section on housing is considered to be representative of housing conditions in Cross Lake.

35% of the houses are more than 11 years old. The most common facilities in each house are television, electricity, trucked water supply and telephone. None of the houses surveyed had hot running water. Of all the houses, 54% were wood heated, 57% electrically heated and 12% oil heated. The majority of housing has four or more rooms. In fact, 62% had 3 to 5 rooms per house. Only 5% had put on additions. Of the additions noted, all were porches. 57% of the respondents classified their house in poor condition. In view of these results, it is not surprising to note that 54 percent felt their houses needed major repairs while only 14% thought that no repairs were required.

The majority of these repairs involved flooring, windows, doors, ceilings, walls and foundation in that order. The great problem areas in houses seemed to be drafty windows (90% of respondents) broken floor tile (81% of respondents), drafty floors (71% of respondents) rotting window sills (69% of respondents), poor heat (66% of respondents), and leaky roof (43% of respondents). Only 45% indicated that they were pleased with their house. The majority recommended that future housing include indoor plumbing (33%) running water (33%), log houses (31%) and larger homes (12%). Considering that this was an open ended question, the numbers appear as very significant.

At the present time, there is no special care home for elderly residents at Cross Lake. Those requiring personal care must travel to Rossville at Norway House.

Grouping of a family cluster of houses

5.1.2 COMMERCIAL DEVELOPMENT

There are a number of local services to the community including the Hudson Bay Company, a bakery, a local inn, a ferry service, handicraft shop, motor shop, grocery store, taxi service, bulk fuel supply service and three other small confectioneries. These services employ 73 people, 29 of which are employed by the Bay. In addition, commercial fishing and trapping include 18 and 162 people respectively, each of which can be considered a commercial enterprise.

5.1.3 CONSTRUCTION/INDUSTRY

A proposed saw mill/log lathe acquisition package has been put forth by the Cross Lake Band to provide a number of job opportunities and much needed services to Cross Lake. The log lathe industry would provide uniform logs required for the proposed transmission line and much needed lumber for housing. In addition, about 5 permanent jobs would be created for the Band members.

The Cross Lake Band of Indians is the owner of Mid-North Development Corporation. This corporation's board is composed of Band Councillors. The corporation undertakes road construction and freight hauling.

An access road from Whiskey Jack Narrows to Sand Bay is currently being constructed for Cross Lake. This will provide the

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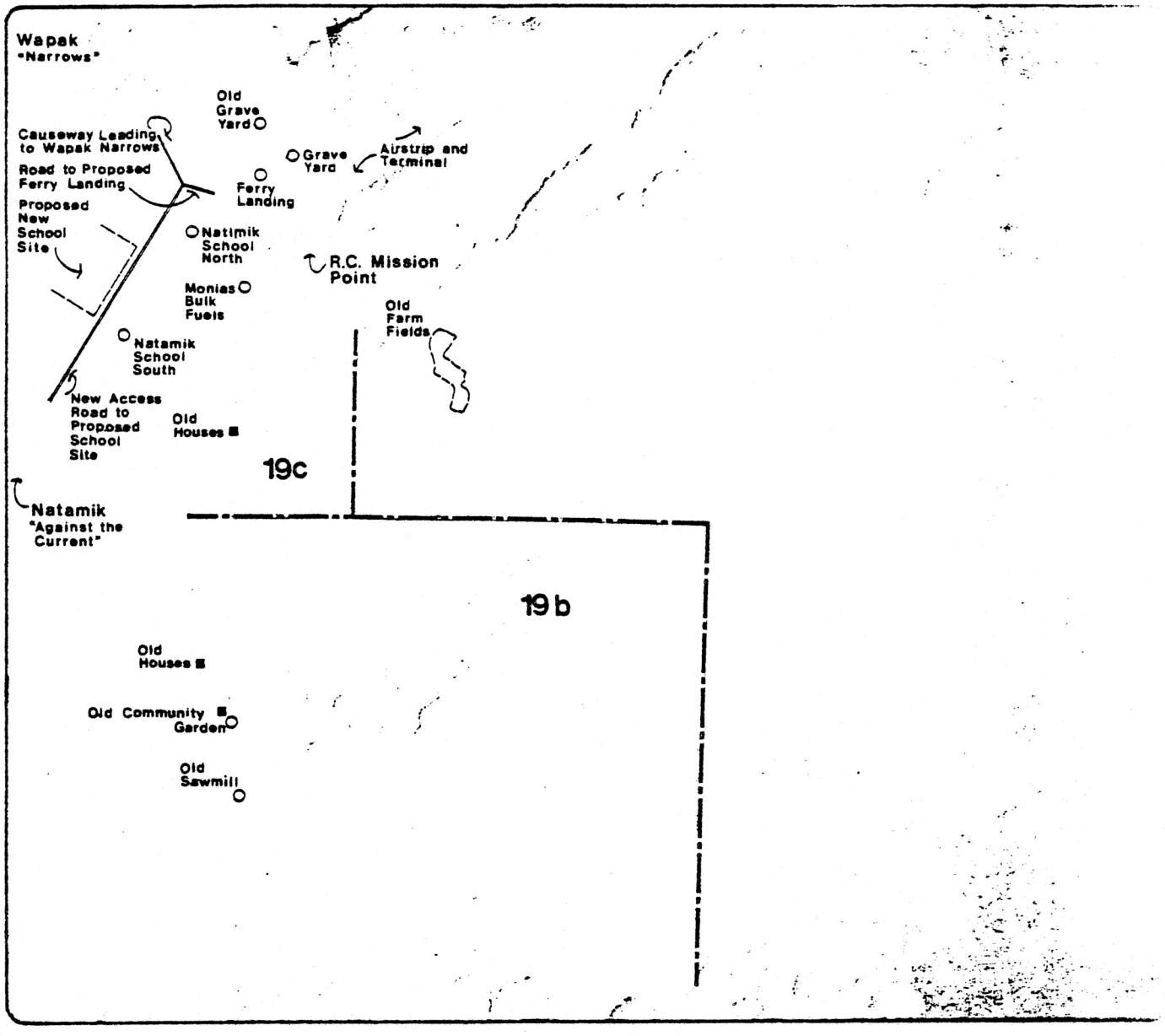
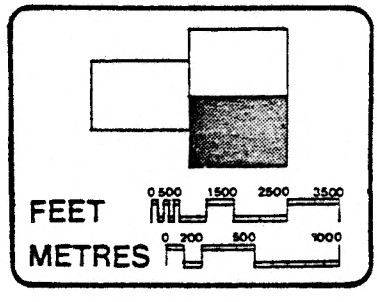
* Saggitawack means "Down River"
Wapak means "Narrows"
Natamik means "Against the Current"



Existing Development



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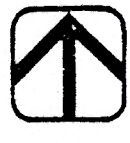

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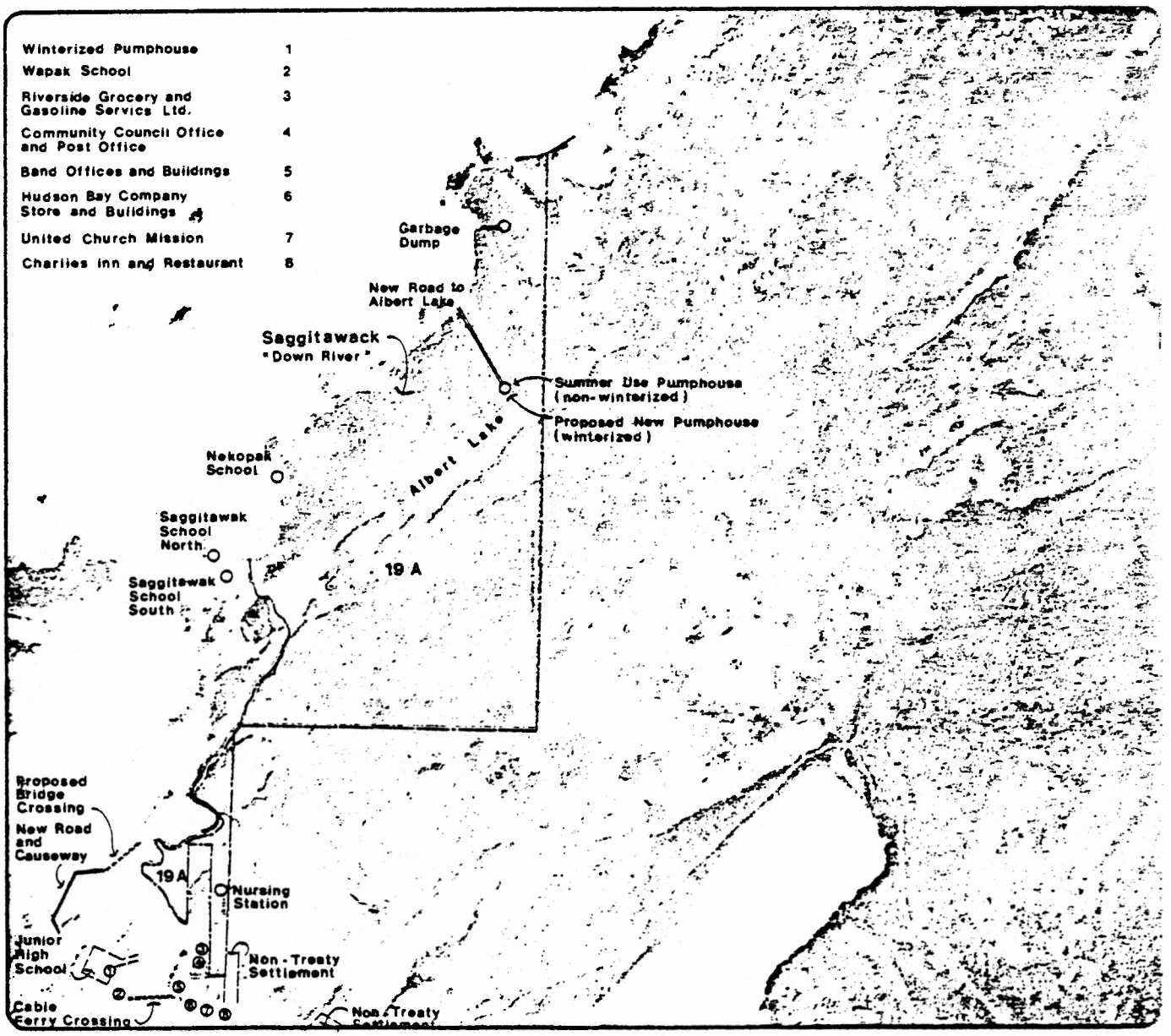

Existing Development

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first all-weather route to southern Manitoba via the connection with the Jenpeg/Norway House road. This is particularly important to Cross Lake in terms of servicing and especially due to the detrimental effects of Jenpeg. Since Hydro development was constructed, ice breakup and increased water levels have caused a number of winter roads to be flooded and/or unsafe. The aggregate endowment in the Sand Bay area provides the natural source of construction material at minimum cost, and the labour force could be established from the Band.

5.1.4 BAND ADMINISTRATION COMPLEX

The band office complex consists of a remodeled 1½ storey house and 3 trailers within a small compound area. A repair workshop is also located adjacent to the band office. All buildings will be in need of replacement in the near future.

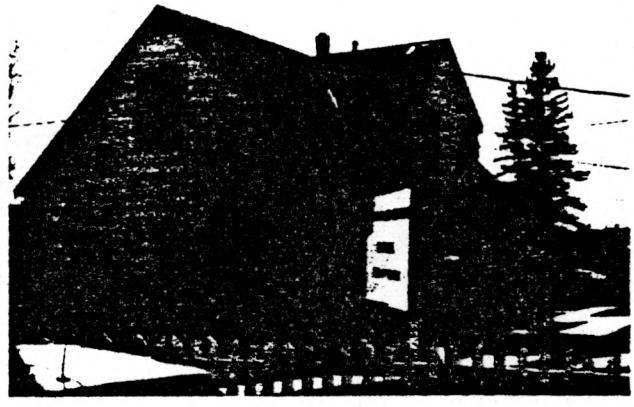
5.1.5 SCHOOLS

Cross Lake has a scattered unconsolidated school system. Buildings include a large number of temporary structures and trailers scattered throughout the three major community areas. Facilities are meagre. No major gymnasium facility exists at any of the schools. In view of the current school building problems, a new school facility is to be constructed at Cross Lake in 1980-82.

5.1.6 INTERNAL TRANSPORTATION

Until this summer, Cross Lake suffered from a poorly constructed road system. Through local efforts, the internal road system has been upgraded to provide all-weather road access throughout the community.

Existing ferry system



Band administration centre

A study completed in 1977, "Preliminary Engineering Feasibility and Cost Study of Internal Transportation System for Cross Lake Indian Reserve" (M.M. Dillon), indicated that a permanent bridge crossing between Cross Island and IR 19A was feasible. It suggested that the solid rock in the area provided "ideal foundation conditions and an economical approach for road construction." It recommended a minimum elevation of 688' a.s.l. Costs at 1977 level were estimated to be $2.5 million to $3.0 million.

A 6 vehicle ferry connects the community at the band office location. This ferry runs on a continual basis during daylight hours. This ferry was provided through the Northlands Agreement. In winter, an ice bridge links this area, no bridges connect the community. As a result, access between the major community areas is difficult and indirect. Boats and snowmobiles are still common transportation modes.

5.1.7 HEALTH CARE

The newly constructed health clinic provides limited care space for minor illnesses and accidents. In most situations, however, patients are sent out to Thompson or Winnipeg for extended or major care. Although the Federal hospital at Norway House is also utilized for health care, few residents desire being treated there. A band ambulance provides transport on the reserve to the clinic or the Cross Lake airstrip from which residents are flown to Thompson or Winnipeg. The nursing staff are available between 9:00 a.m. to 5:00 p.m. Monday to Friday or for emergencies after hours. A general practitioner spends seven days every two weeks at the Health Clinic. A dentist is

on part-time staff. The pediatrician visits the community for 2 days every 3 months.

A Community Health Representative works out of the clinic under the direction of the Nurse in Charge. The Community Health Representative distributes health information instruction and guidance to the residents. Emphasis is placed upon contact with residents, visiting homes, assisting in child care and providing advice on health and hygiene.

5.1.8 PROPOSED NEW SCHOOL

The proposed Cross Lake School complex essentially is made up of 5 pods. These are 3 separate classroom areas, 1 section for primary, 1 section for junior high and 1 for high school grades. These surround a central library area. The entire complex of 6,691 square metres is designed to facilitate easy access by the public and students to the library, administration and activities areas, but still separate the primary and older grades for best working conditions.

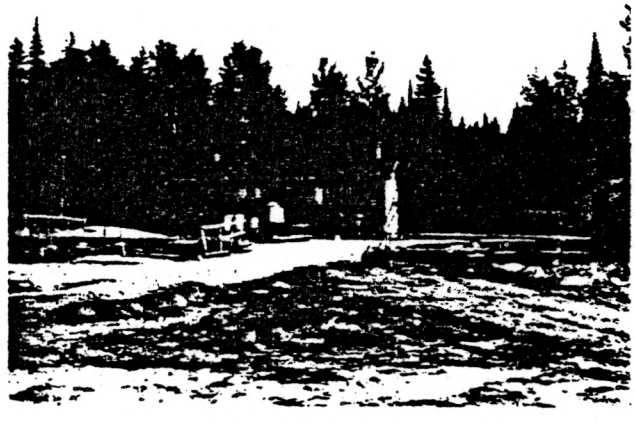
5.1.9 COMPARISON OF IR 19, 19A, B AND C

In previous historic time, the people of Cross Lake lived along the shoreline of all four reserve areas. Over time, however, as services and infrastructure became centralized at IR 19A and adjacent non-reserve lands, the residents of more isolated portions of IR 19 and IR 19B and IR 19C began to relocate to IR 19A and the eastern shore of IR 19. As a result IR 19B and 19C were abandoned for living purposes. Today, the spinal road system which parallels the eastern shoreline of IR 19 and the western shoreline of IR 19A links the existing development of the Cross Lake Band of Indians. Little or no development is located off these two main access roads.

5.1.10 WATER SUPPLY

The water supply for most residents is now taken from one of four sources. These are the truck pump station at Albert Lake, the truck pump station near the Hudson Bay store on Cross Lake, hand hauling from the lake and a truck pump station on Ross Island. Current problems encountered at the Albert Lake station which is not winterized requires the use of the community council intake near the Hudson Bay Company. Although a recommendation was made in 1977 to upgrade the temporary Albert Lake system to a permanent water supply, no such action has taken place. Albert Lake provides an excellent source of water due to its low colour, turbidity, and dissolved solids and iron.

Current 1980 water supply point



Water storage bins typical of all houses

A "Preliminary Engineering Feasibility and Cost Study on Water Supply and Distribution System for Cross Lake" (M.M. Dillon, September 1977) indicated that:

> "the cost of servicing with underground distribution lines is excessive because of the fragmented division of the community, the spread out nature of the settled area on both sides of the River, rock outcrops and soil conditions." (p. 6)

As a result, the study recommended

> "that the combination of truck distribution, together with an improved all weather road system is by far the most economical and practical solution for the forseeable future." (p. 6)

The specific system was to include an upgraded intake at Albert Lake, buried insulated supply line to the main road, 3 bay heated buildings

and four trucks on the east side and a similar pumphouse, storage garage, treatment plant and truck on Cross Island. These recommendations were not implemented. Rather, the temporary system put in place in 1977 and which was to operate for one or 2 years is now broken down and unavailable for use. At the present time, one of the locations not recommended for use in Dillon's 1977 study has had to be activated due to the breakdown in the Albert Lake temporary system.

5.1.11 WASTE DISPOSAL

Solid disposal is deposited in two sanitary land fill sites which were constructed in 1979. No formal garbage pick-up program exists in the community. Throughout the community, individual residences utilize pit privies for human waste. Larger complexes use treatment plants. The new school will have a lagoon system for waste treatment.

5.1.12 POLICING

Cross Lake is policed by two full-time rotating R.C.M.P. who are permanently stationed in Wabowden. A trailer accommodation unit is in Cross Lake for their use. In addition, an overnight jail is located in the same area. Three band constables supplement the R.C.M.P.

5.1.13 COMMUNICATION

Cross Lake is served by a local radio station, CFNC. This station is operated by Native Communications Inc. A local Education newsletter published monthly in the form of a newspaper is available for dissemination of local events and news. Outside newspapers which are read in the community are Winnipeg based. In addition, other forms of external communication include CBC-TV and CBC-radio.

5.1.14 PROPOSED DEVELOPMENT

In a study completed in 1978, a number of potential townsitecentres were identified for Cross Lake (Map 9 and 10). At site number 9, a new school is proposed. The Cross Lake Band of Indians proposes to construct a bridge between IR 19 and IR 19A north of the narrows (Map 5).

5.2 REGIONAL TRANSPORTATION SERVICES

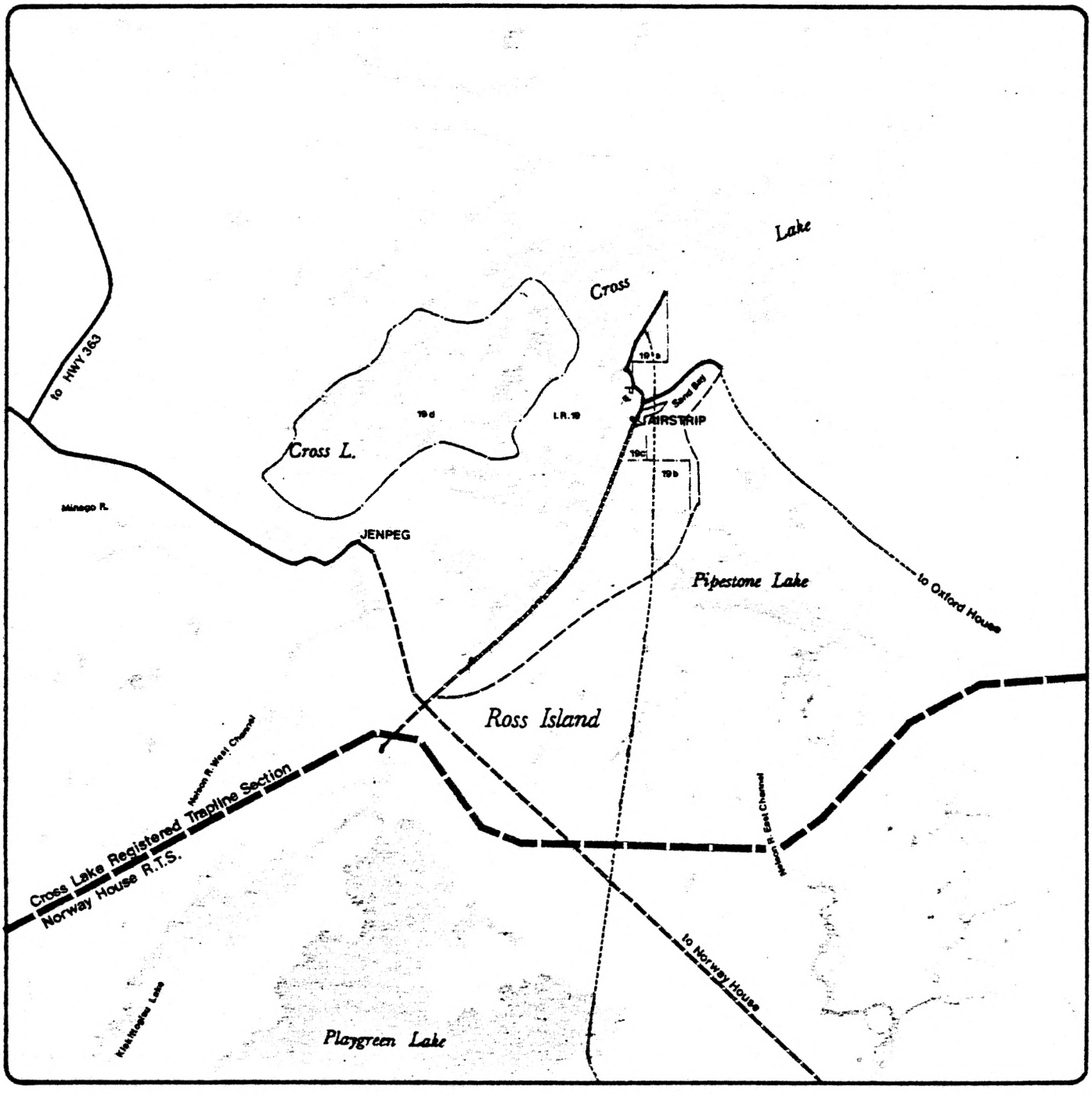
There are 3 basic modes of external transportation at Cross Lake. These are by road, air and boat. The road system at Cross Lake to date is limited. Under construction is an all weather road to Jenpeg, and a number of winter roads between Jenpeg and Cross Lake, Norway House and Oxford House (Map 6).

An access road from the Whiskey Jack Narrows (on the Jenpeg/Norway House route) to Cross Lake around Sand Bay, is under construction (Map 7 and 8). This will give Cross Lake an all weather access road to Norway House, the nearest Community as well as access to the provincial highway system.

The airstrip use at Cross Lake has greatly increased in the last year (Table 1). The attached table shows the number of strip movements, passengers and freight moved at Cross Lake by month for 1979 and compared to year end totals from 1977 and 1978. There was a 30% decrease in use from the period April 1, 1977 to March 31, 1978 and April 1, 1978 to March 31, 1979. The period from March 31, 1979 to December 1, 1979 showed a 268% increase from the proposed 79/80 use. The total 1979/80 season will be complete in March. At present, part of the reserve land is in the process of being transferred to the province for the airstrip.

There is provincial ferry service at Cross Lake connecting the community with the Jenpeg road. Data has been compiled for 1978/79 on use of the "M. Sinclair" ferry (Table 2). The largest proportion of use made of this ferry is by local passenger traffic travelling in and out of the community. The ferry takes 1½ hours to complete the one-way trip.

New sanitary waste disposal site



all weather road
existing road (other)
proposed Cross Lake access road
winter road
water route
ferry / wharf

MILES 0 1 2 3 4 5
KILOMETRES 0 1 2 3 4 5

Transportation Services & Airport

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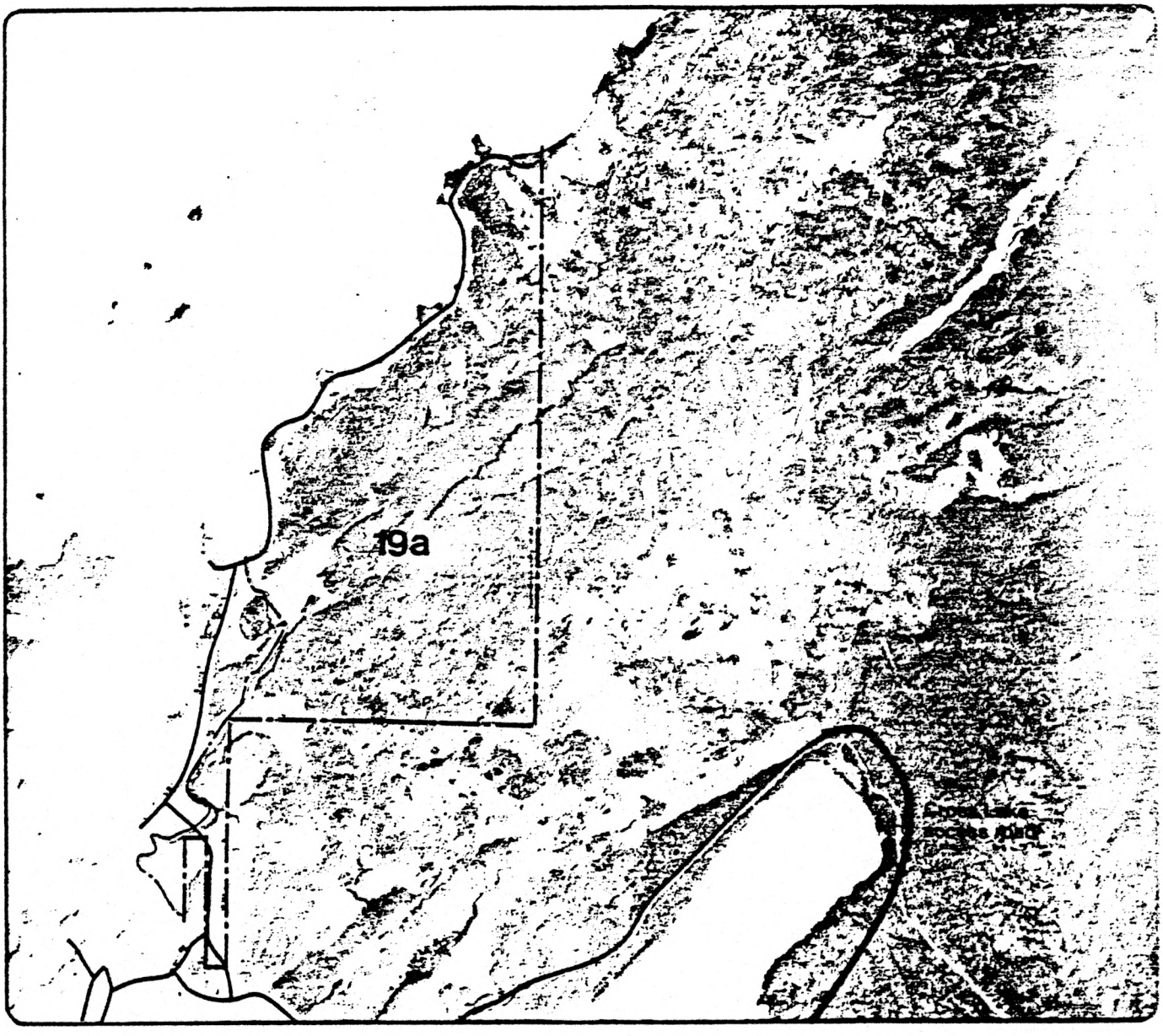
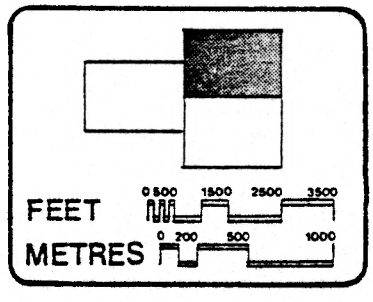


Location of Cross Lake Access Road



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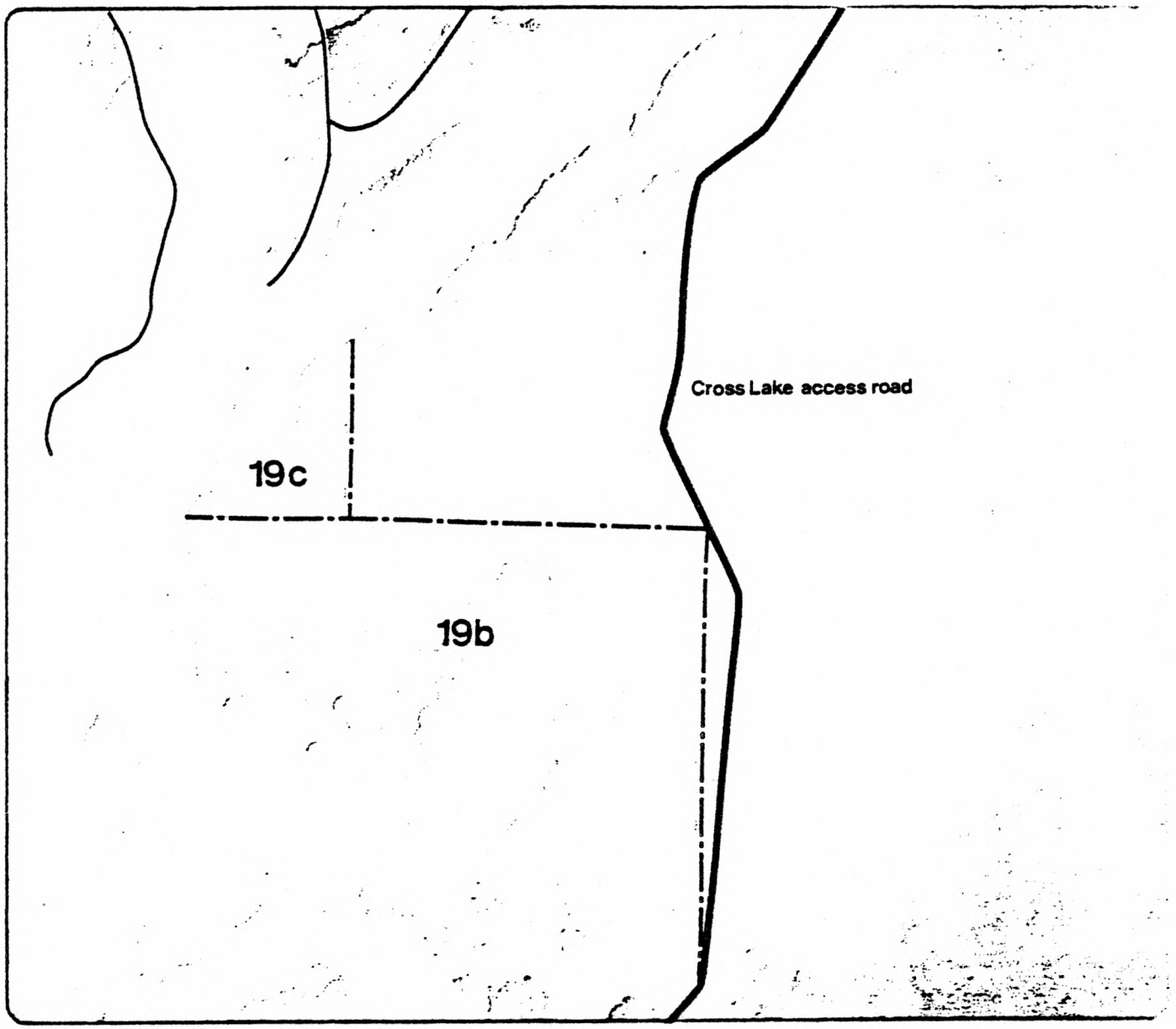

Location of Cross Lake Access Road

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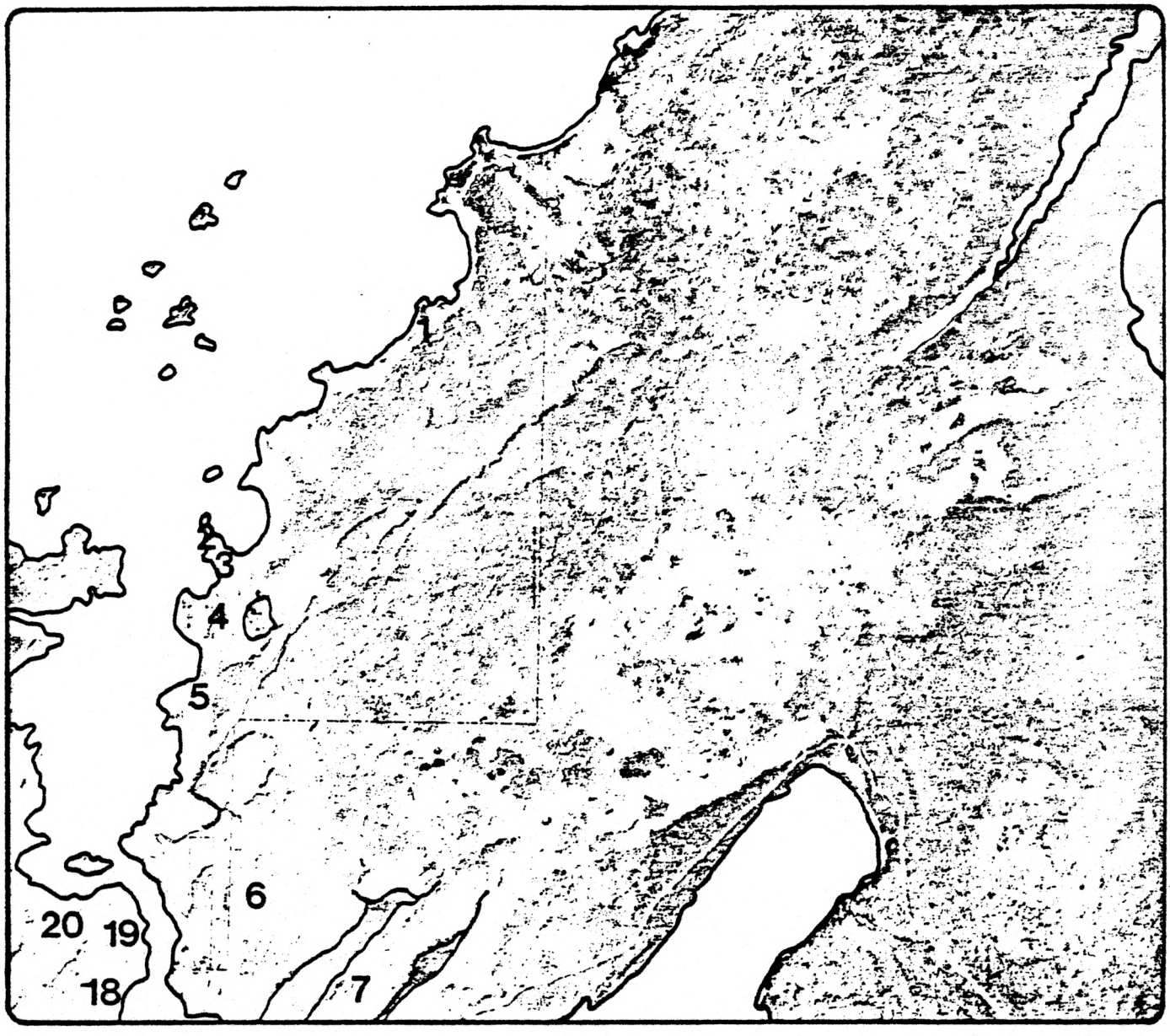

Potential Sites as indicated by:
Cross Lake Town Centre: Location Study
Amisk Planning Consultants
May 1976

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Potential Sites: Town Centre

Cross Lake Planning Study

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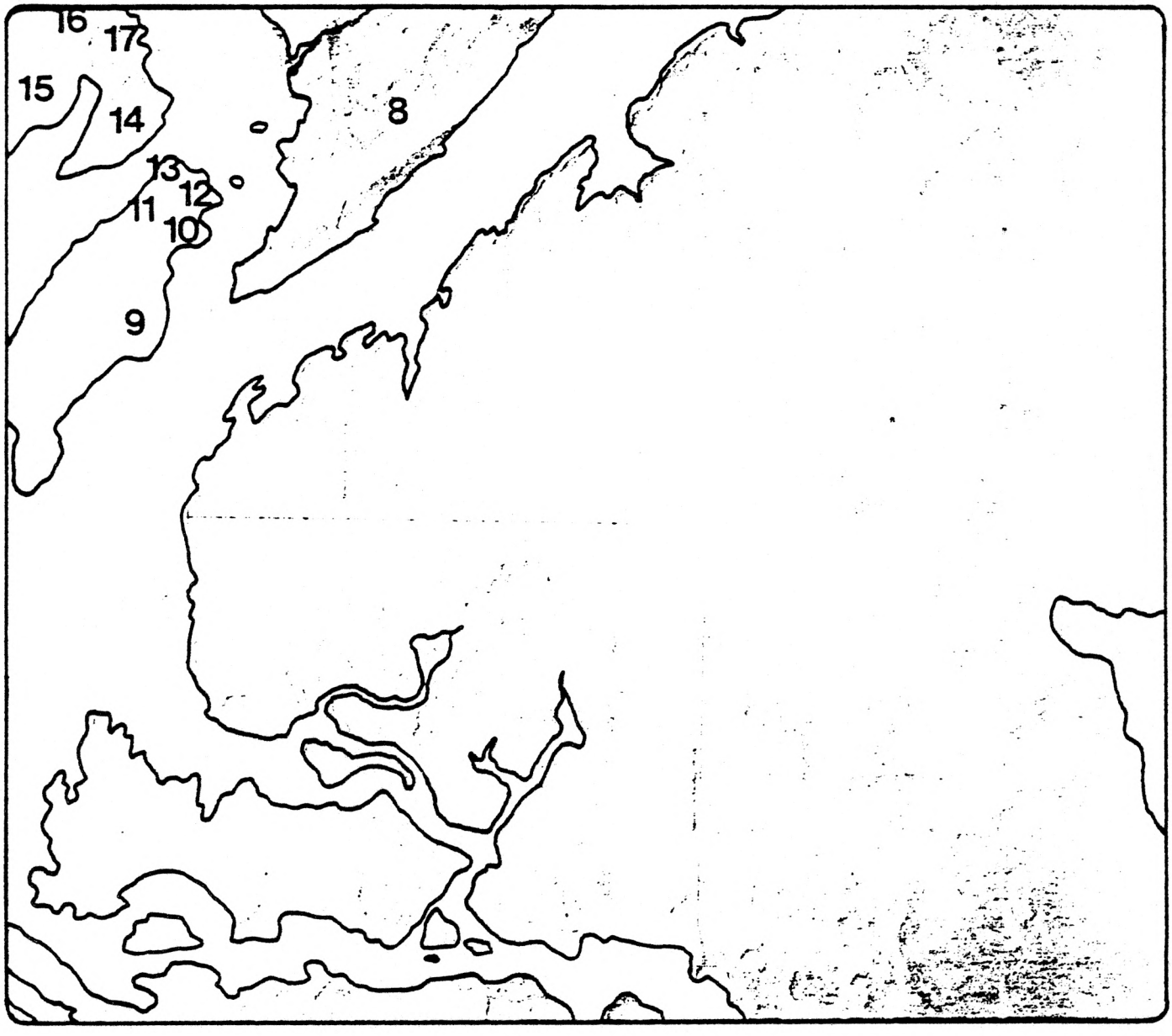

Potential Sites as indicated by:
Cross Lake Town Centre: Location Study
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May 1976

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Potential Sites: Town Centre

Cross Lake Planning Study

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TABLE 1:
ACTIVITY TOTALS FOR CROSS LAKE AIRPORT 1979

	Number of Stip Movements	Passengers	Freight (T.)
April 1979	304	605	65.2
May 1979	720	602	76
June 1979	1,010	2,195	100.3
July 1979	1,292	2,704	107.8
August 1979	1,626	3,374	114.1
September 1979	1,904	3,866	120.5
October 1979	2,196	4,474	130.9
November 1979	2,612	5,402	195.2
Oecember 1979	no data available		
	11,644	23,222	910.0
Previous year end totals			
Apr. 1/77 - Mar. 31/78	4,526	11,079	680.4
Apr. 1/78 - Mar. 31/79	3,172	9,161	510
Projected totals for			
Apr. 1/79 to Mar. 31/80	3,657	7,563	273
Amount of use exceeded			
over projection to Nov./79	8,007	15,659	637

TABLE 2:
CROSS LAKE TRANSPORTATION

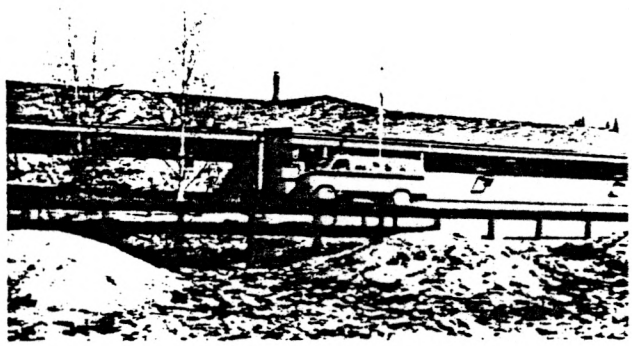
Ferry Use: M. Sinclair:	Pedestrians:	5,420
1978-1979 Vehicles:	Up to 3/4 T.	2,633
	Trailers	72
	Tandum Trucks	28
	Tandum trucks and trailers	8
	Semi-trucks	238
	Busses	15
	Construction equipment	72
	TOTAL VEHICLES	3,066

Conclusions

- that the health care at Cross Lake has improved substantially through new facility construction
- that the completion of the new road linking Cross Lake to the remaining provincial highway system will greatly enhance local transportation access
- that the proposed new school will greatly reduce some of the current educational problems
- that IR 19B and C offer potential for future expansion
- that the current water supply system is inadequate for a community of this size

Recommendations

- that the water supply system be significantly upgraded
- that IR 19B and C be viewed as important future community expansion areas



Existing health care facility

Existing playground facilities are in a state of disrepair

6. *Socio – Economic Consideration*

This section examines a variety of social and economic factors and variables which will affect the long-term development of Cross Lake. Included in this discussion, is a review of population, education, health and economic considerations.

6.1 HUMAN RESOURCES

6.1.1 POPULATION

The Cross Lake Indian Band population in June of 1979 was 2,126 (Table 3). The Band consists of "on-reserve" and "off-reserve" members, where the off-reserve population typically represents about 17% of the total population (Table 4). Although the on-reserve to off-reserve population ratio has usually fluctuated near 83:17, recent evidence since 1976 suggests that the off-reserve population may be increasing at a faster rate. For instance, the on-reserve to off-reserve ratio now stands at around 80:20. This gradual move off-reserve can likely be attributed to a variety of reasons including economic, health and/or education factors.

The slight increased movement out of the community in recent years does correspond to the year Jenpeg Hydro-electric development and associated road construction began as major activities in the area. It is likely that these opportunities facilitated a higher proportion of movement out of the reserve. This seems to be especially true for the active and mobile age groups (20-29), who are readily attracted to outside high-wage oriented job opportunities. Another age group exhibiting increased mobility tendencies was the 15 - 19 group. This group was likely moving to higher education facilities found outside the community. By 1978, 19.6% or 337 of all band members were living off-reserve.

The current population structure for 1979 consists of 1,085 males and 1,041 females for a total of 2,126 band members (Table 3). This represents a male to female ratio of 104:100. Of the total population, 16% are pre-school age (4 years or younger), 43% are between the ages of 5 to 19, 36% are labour force (age 20 - 59) and 5% are over 60. Of this number, about 60% live on the mainland and 40% upon Cross Island.

The Cross Lake Band of Indians has grown dramatically during this century from a population of 525 in 1924 to over 2,000 in 1980 (Table 5). This represents a fourfold increase. The growth rate of Cross Lake has historically fluctuated between 2.1% and 5% per year, with the average from 1965 to 1978 being 2.9% (Graph 1). In 1979, however, the growth rate declined to 1.7%.

The birth rate at Cross Lake has varied considerably from 40.4 births per 1,000 females in 1978 to 25.2 births per 1,000 females in 1976. This birth rate variation is substantial. Comparison with other northern native communities, however, reveals that these rates are typical. With an average annual birth rate of 32 births per 1,000 females per year, a projected natural increase can be estimated to be approximately 25 per 1,000, if annual deaths per 1,000 are subtracted from births per 1,000 (32.6 less 7.5 = 25.1) (Table 6). A comparison of this natural increase rate with other communities indicates that Cross Lake's growth pattern is similar to other northern native communities.

The population projection for the Cross Lake Band was undertaken using three methods. The first was a computer assisted projection of age cohorts over a 25 year period. The computer input consisted of survival rates, migration rates, 1978 cohort population information and the male to female ratio. The projected band population, using the foregoing inputs, indicates an expected on-reserve band population of 1,885 in 1983 and 3,292 in 2003 (Graph 2 and Table 7). A detailed breakdown by cohort for each 5 year period is given in Tables 8 - 12.

The second method involved a total population projection using existing natural increase rates. Due to the inability to determine appropriate long-term natural increase rates, this projection was made only for the period 1978 to 1993. Even so, this projection will provide a means of comparing the accuracy of the computer assisted technique. This comparison initially indicates that both methods are similar in their total projections with the computer assisted program indicating a higher total rate of increase as the large number of 10 - 14 females enter child-bearing age (Graph 3).

The third projection was based upon the traditional linear projection of existing growth rates into the future. This is a limited method of projection in that no account is given to specific age cohort composition or the potential that the number of births per family will decrease over time as young people seek smaller families. Further, the linear projection does not reflect the inherent variability of increases which have occurred in the past. Therefore, no recognition is given to the variability of potential child-bearing adults, over time.

An examination of the detailed Band List indicates that there were some 320 families at Cross Lake in 1978 (Table 13). This number does not necessarily reflect actual households, however, since there are some families living together but recorded as separate family units. Even so, the number is probably a good reflection of the

TABLE 3:

CROSS LAKE POPULATION 1979

	Male	Female	Total	% of Total Population
0 - 4	161	174	335	16
5 - 9	166	160	326	15
10 - 14	139	149	288	14
15 - 19	161	135	296	14
20 - 24	106	99	205	10
25 - 29	76	67	143	7
30 - 34	53	47	100	5
35 - 39	53	32	85	4
40 - 44	43	40	83	4
45 - 49	34	34	68	3
50 - 54	14	20	34	2
55 - 59	19	26	45	2
60 - 64	12	14	26	1
65 - 69	27	20	47	2
70+	21	24	45	1
TOTAL	1,085	1,041	2,126	100

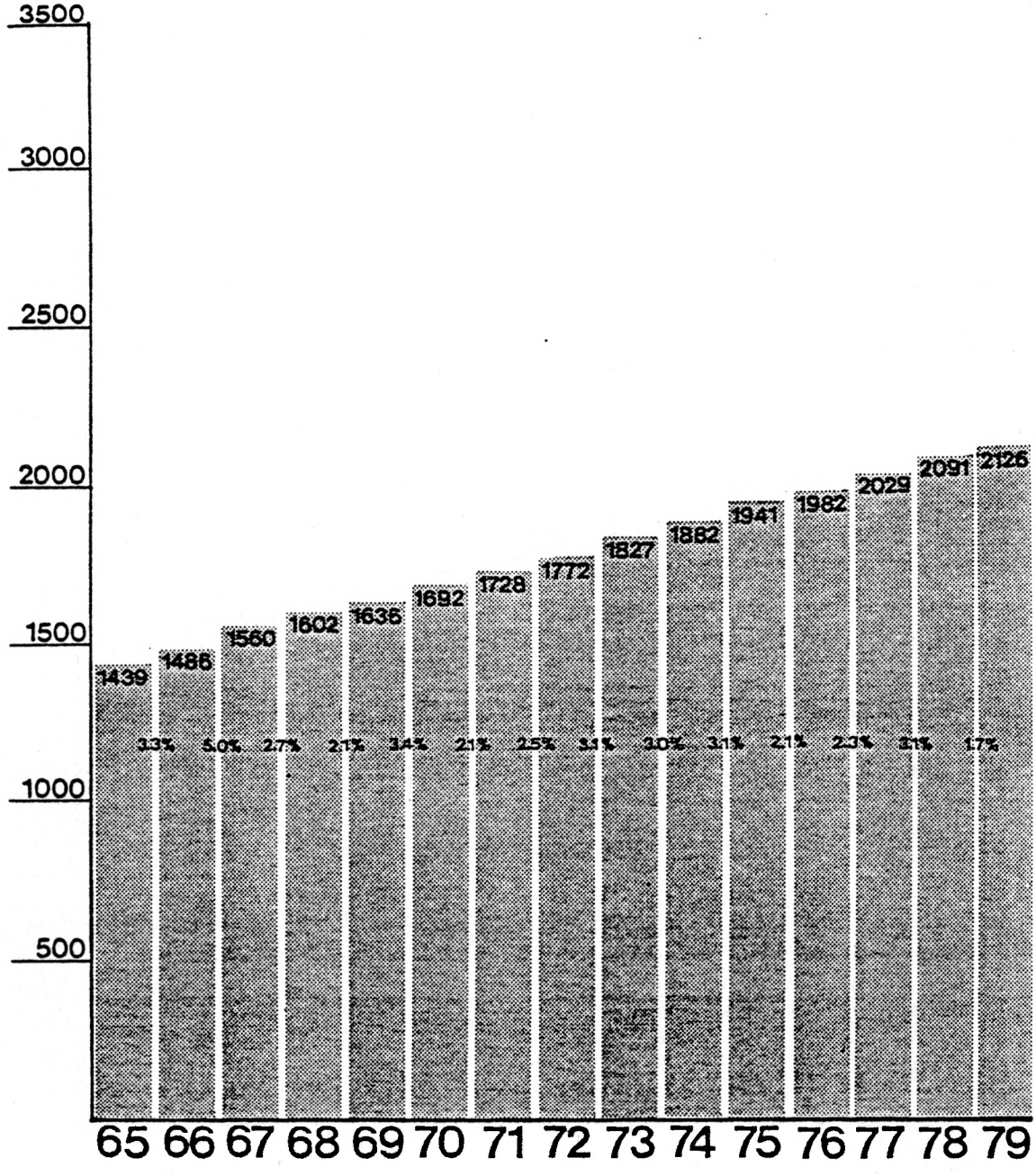
SOURCE: Medical Health Services of Canada 1979 (June)

TABLE 4:

ON & OFF RESERVE POPULATION: RECENT

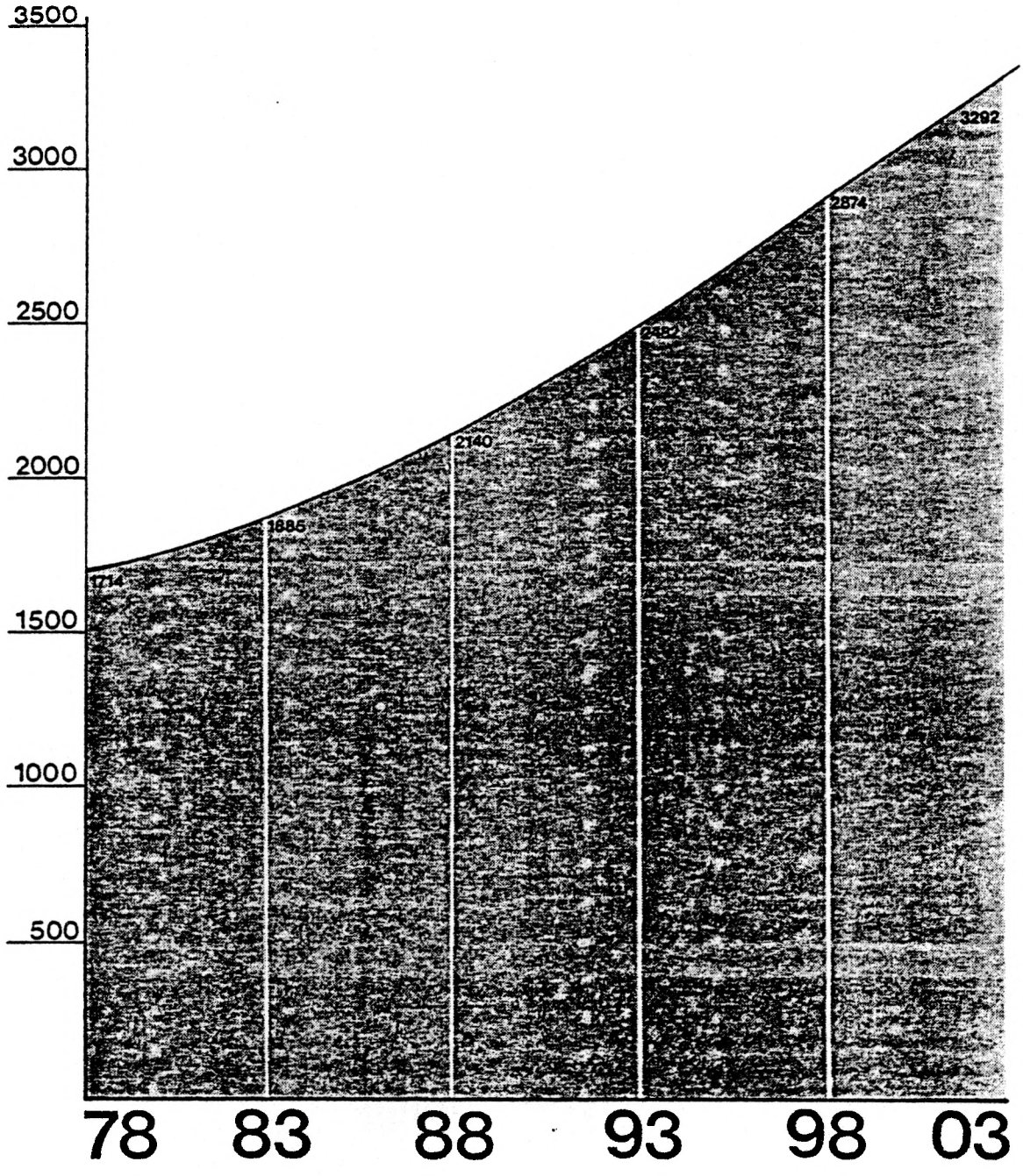
	1973		1974		1975		1976		1977		1978	
	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off
0 - 4	236	37	249	29	251	22	234	29	230	38	227	46
5 - 9	262	49	252	50	263	46	241	56	250	46	261	47
10 - 14	252	41	263	40	270	35	266	46	256	54	251	58
15 - 19	191	25	199	29	206	33	232	43	230	44	239	45
20 - 24	129	15	145	14	162	14	150	24	169	31	178	28
25 - 29	95	17	99	15	108	16	114	24	110	18	112	23
30 - 34	73	18	70	16	67	13	65	16	70	19	79	18
35 - 39	70	15	79	16	86	14	79	22	71	20	68	19
40 - 44	55	11	63	10	60	13	55	13	65	14	66	16
45 - 49	37	9	30	9	37	10	46	10	46	9	55	11
50 - 54	41	0	49	2	42	3	38	5	42	6	32	9
55 - 59	28	7	27	5	35	3	35	3	33	2	39	-
60 - 64	44	3	43	5	33	5	34	5	29	5	25	6
65 - 69	21	1	26	-	35	1	36	1	33	3	39	5
70+	32	7	34	7	37	7	41	13	45	12	43	6
TOTAL	1,566	255	1,628	247	1,692	235	1,666	310	1,679	321	1,714	337

SOURCE: "Registered Indian Population by Sex and Residence", Department of Indian Affairs



Graph I

Recent Population Growth



Graph 2

Population Projection

TABLE 5:

HISTORICAL (CROSS LAKE) POPULATION

Year	1924	1934	1944	1954	1959	1965	1970	1970
TOTAL	525	635	788	926	1,100	1,439	1,692	1,941

SOURCE: "Census of Indians in Canada", Statistics Information Centre: Indian Eskimo Affairs Branch, Department of Indian Affairs

TABLE 6:

BIRTH AND DEATH RATES FOR CROSS LAKE INDIANS

Year	Population	Deaths	Death Rate per 1,000	Births	Birth Rate per 1,000
1976	1,666	13	7.8	42	25.2
1977	1,679	15	8.9	54	32.2
1978	1,685	10	5.9	68	40.4
Average			7.5		32.6

SOURCE: Department of Health Statistics

TABLE 7:

POPULATION PROJECTIONS

	1978	1983	1988	1993	1998	2003
Male	893	985	1,123	1,309	1,522	1,748
Female	821	900	1,017	1,173	1,352	1,544
Total	1,714	1,855	2,140	2,482	2,874	3,292
Births		182	268	359	409	445
Deaths		7	11	16	19	29
Net Migration		(4)	(2)	(1)	2	2

TABLE 10:

POPULATION PROJECTIONS BY FIVE YEAR COHORTS (1993)

Cohorts	Male	Female	Total
0 - 4	194	165	359
5 - 9	144	122	266
10 - 14	97	83	180
15 - 19	110	113	223
20 - 24	132	123	255
25 - 29	128	116	244
30 - 34	119	114	233
35 - 39	98	80	178
40 - 44	66	47	113
45 - 49	39	40	79
50 - 54	45	23	68
55 - 59	32	36	68
60 - 64	29	28	57
65 - 69	15	17	32
70+	61	66	127
TOTAL	1,309	1,173	2,482

TABLE 11:

POPULATION PROJECTIONS BY FIVE YEAR COHORTS (1998)

Cohorts	Male	Female	Total
0 - 4	221	188	409
5 - 9	192	164	356
10 - 14	144	122	266
15 - 19	97	83	180
20 - 24	109	112	221
25 - 29	131	122	253
30 - 34	127	115	242
35 - 39	119	114	233
40 - 44	98	81	179
45 - 49	67	47	114
50 - 54	39	40	79
55 - 59	46	23	69
60 - 64	32	36	68
65 - 69	28	27	55
70+	72	78	150
TOTAL	1,522	1,352	2,874

TABLE 12:

POPULATION PROJECTIONS BY FIVE YEAR COHORTS (2003)

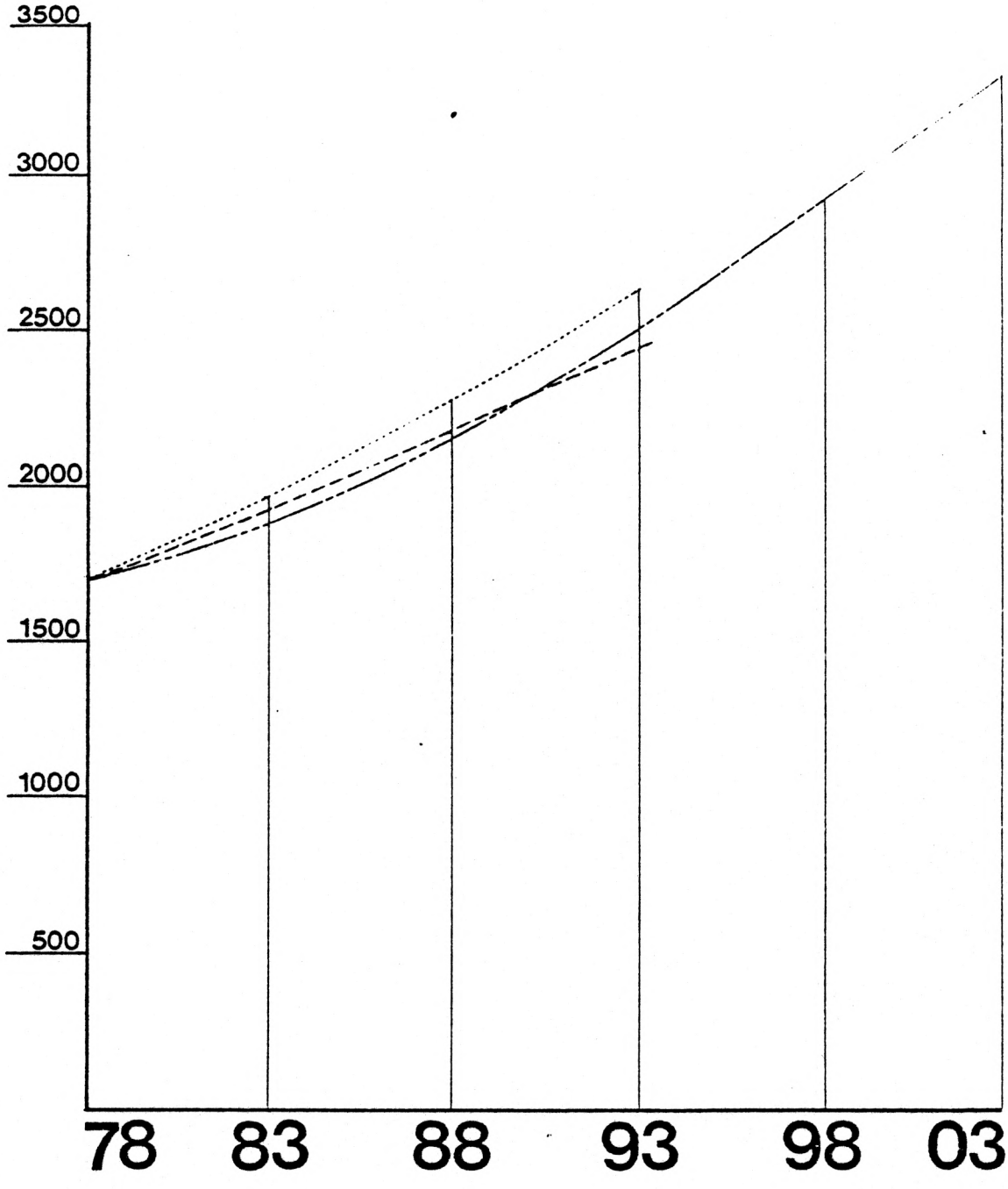
Cohorts	Male	Female	Total
0 - 4	240	205	445
5 - 9	219	186	405
10 - 14	191	163	354
15 - 19	143	121	264
20 - 24	97	83	180
25 - 29	108	111	219
30 - 34	130	121	251
35 - 39	126	115	241
40 - 44	119	114	233
45 - 49	98	81	179
50 - 54	66	47	113
55 - 59	40	41	81
60 - 64	46	23	69
65 - 69	31	35	66
70+	94	98	192
TOTAL	1,748	1,544	3,292

TABLE 13:

FAMILY SIZE AT CROSS LAKE

Family Size	Number of Families	Total Population
2	93	186
3	58	174
4	36	144
5	33	165
6	24	144
7	25	175
8	16	128
9	22	198
10	9	90
11	2	22
12	2	24
	320	1,450

SOURCE: 8and List for Registered Indians, 8and 24, Cross Lake Indian 8and Department of Indian Affairs, 1978



Graph 3

Population Projection

actual number of individual households. These 320 families contain 1,420 members or 4.4 members per family. This suggests that there are 294 individuals recorded outside the family unit (total on-reserve population 1,714 less 1,420). These individuals are largely young adults (+18 years of age) who are recorded separately on the Band list. Even if all these individuals were accounted for in a family unit, the average members per family would be only 5.3. When compared to other northern communities, the number of persons per family seems low. This could be a result of the large number of young married couples with one or more children. If those families with children at home are examined, the average number of persons per family increases to 5.5.

An additional factor which must be considered is the actual size of households as affected by the extended family concept. Thus, although there may be only an average of 4.4. persons per family, the actual number per household could be significantly higher due to the presence of relatives living in the same household.

In Cross Lake there are a large number of single parents with children (Table 14). This group accounts for 38% of all families. Few couples have no children. The largest recorded family size is 12.

Families generally have congregated around relatives, usually parents. As a result, a clustering of houses is evident within various portions of the community. Each cluster is often a family grouping living in close proximity to other immediate family members.

A projection of families was undertaken to determine future family composition and numbers (Table 15). The projection was based upon the 5-year cohort projection, using 1978 ratios. For families with children at home, the total 20 to 59 population was divided by the number of families to give a factor of 41.9. This factor was multiplied times the projected 20 - 59 cohorts for each 5 year forecast. Similar projections were made for the remaining categories. As a result, there will be more than a doubling of the number of families by 1998. The fastest growing family group will be the older couples.

TABLE 14:

FAMILY DISTRIBUTION BY GROUPING FOR ON-RESERVE BAND MEMBERS 1978

Group	Number of Families
- Families with children at home	163
- Young married couples with no children (under 30 years of age)	13
- Single parents with children	101
- Middle-aged couples with no children (30 - 50 years of age)	4
- Older couples with no children (+50 years of age)	39
TOTAL	320

TABLE 15:

ESTIMATED NUMBER OF BAND MEMBER FAMILIES

Year	Families with Children at Home*	Young and Middle-aged Couples Without Children**	Older Couples (+60 years of age)	Total Families
1978	264	17	39	320
1983	346	22	51	419
1988	436	28	60	524
1993	519	33	77	629
1998	582	37	98	717

* Includes single parents with children at home
** Includes all couples with children

6.1.2 EDUCATION

The education program at Cross Lake includes regular education studies for children as well as special training programs for adults.

(a) Existing School Program at Cross Lake

There are six schools at Cross Lake. These schools are scattered throughout Reserve 19 and 19A (Map 4 and 5). The majority of school buildings include temporary buildings and trailers. Accompanying recreation facilities are absent.

The 1977/78 enrollment at Cross Lake School was 691 students, 575 of which were registered Indians (Kirkness, 1978). This represents 34% of the total on-reserve population. In 1979, this total enrollment figure increased to 794. Of this total, 149 were in nursery school and kindergarten, and 645 in grades 1 to 12. The education program offers nursery school to grade 9 education and has a bilingual program up to grade 4. Native arts and crafts courses are offered in grades 7 to 9.

(b) Overview of Indian Education

Table 6 contains Cross Lake enrollment along with other Federal schools in Manitoba. In general, 44% of the total Indian student population attends Federal (on-reserve) schools with the balance going to Provincial schools. This represents roughly 34,300 and 44,000 students respectively. The closest Provincial school to Cross Lake is Norway House. In comparing Federal and Provincial schools, a number of facts emerge that will be discussed in detail.

The first observation is that the Indian student population is greatest in grades 1 to 6 with the highest level in grade 1 and declining markedly in grade 8 (Table 17).

The number of students being held back or repeating a grade (the rate of "age-grade retardation") is particularly high in the Indian student population with an average being 30% of the total student population repeating a grade. The highest levels of age-grade retardation are in grades 7 to 9 at an average of 41% in Federal on-reserve schools and 40% in Provincial schools. Drop-out levels also commence in junior high in Provincial schools while Federal schools experience a 9% drop-out rate beginning in grade 6. A substantial drop-out level occurs in grade 9 for all schools among the Indian students.

These high drop-out rates are likely a reflection of several factors including the lack of interest in the school program, poor school facilities, peer group pressure and lack of cultural related programs in upper grades.

High school training was not available to any Federal schools until 1975/76 and today is available to only 2 of 8 on-reserve schools. This means that relocation to another area is necessary for Cross Lake children desiring a high school education. As a result, many students opt to remain in the Community and drop-out of school.

The total number of students in each course stream for grades 10 to 12 is listed in Table 18. It should be noted that the number of students entering academic programs in Federal schools was 23% higher than from Provincial schools over the 1972/73 to 1976/77 period. High school training was not available on the reserves until 1975/76. Most Indian students entering high school opt for the general program (generally 75) with the remaining split between University, Occupational Entrance Courses (OEC), vocational and on the job training.

The actual number of Indian student graduates from 1972/73 to 1976/77 was 28. Sixteen were from Provincial schools and 12 were from Federal schools. Of these, 4 went to University, 4 went to community college, 1 married and 3 are unaccounted for. It is evident that the level of graduates must be increased substantially.

Attendance at Cross Lake was 70% in 1975/76 and 65% in 1976/77 on the average. This is comparable to other Federal schools where the overall average attendance is 73%. The major reason for absenteeism in grade 1 to 7 is illness, with "helping at home" and parental neglect contributing to absenteeism in grade 8 to 10. Grade 6 students at Federal schools have a large absenteeism rate which may be associated with the drop-out rate for this grade. Provincial schools have an overall attendance of 76%, again with illness the major reason for days away. Lack of interest and irrelevant programs play a role in absenteeism from grade 7 onward along with parental neglect (Kirkness).

(c) Student Aspiration

Achievement and destination goals of Indian students from grade 10 to grade 12 are listed in Table 19. Of the students, 18% said they would like to take further

TABLE 16:

ENROLLMENT: MANITOBA FEDERAL SCHOOLS

	Enrollment 77/78		Staff		Grades	Indian
	Indian	Total	Indian	Total	Offered	Culture Program
Cross Lake	575	691	12	25	N-9	Bilingual Program (N-3) Arts and Crafts (7-9)
Fisher R.	263	296	6	24.5	N-12	Native historical studies (K-12) Cree language (K-12) Arts and Crafts (7-9) Outdoor education
Garden Hill	489	503	9	28	N-10	Cree language Native studies
Lake Manitoba	159	180	8	13	N-12	Native language
Bloodvein (Miskooseepi)	164	190	3.5	3.5	N-10	Handicrafts Native studies
Nelson House	338	447	8	18	N-10	Bilingual Program (N-3)
Oxford House	320	326	2.5	20.5	N-11	Cree syllabic (7-9) Native studies Outdoor education
Pine Creek	80	81	1	7	N-9	Saultaux (1-3) Native studies

SOURCE: "Evaluation Report: Education of Indians in Federal and Provincial Schools In Manitoba" V. Kirkness with Department of Indian and Northern Affairs; Indian and Inuit Affairs, Program Evaluation Branch 1978

TABLE 17:

MANITOBA PROVINCIAL AND FEDERAL SCHOOLS RATE OF AGE - GRADE RETARDATION AND DROP-OUT LEVELS FOR INDIAN STUDENTS IN 1972/73 - 1976/77

	Total # Students		% Age - Grade Retarded		% Drop-Out of Total Indian Population (76/77)	
Grade	Federal	Provincial	Federal	Provincial	Federal	Provincial
1	1,357	811	8.0%	10.4%		
2	1,210	578	17.0	14.7		
3	1,300	540	26.6	22.0		
4	1,120	514	35.0	27.0		
5	1,098	482	40.0	28.6		
6	948	544	30.0	30.3	9.0%	0.0%
7	1,078	661	45.0	41.3	13.8	8.9
8	735	435	40.0	42.0	17.6	11.2
9	593	420	38.0	38.0	29.6	39.1
10	193	239	30.0	33.9	27.7	34.5
11	63	145	25.4	32.4	52.6	21.4
12	18	64	33.3	44.0	16.6	27.5
Special	N/A	N/A				7.03
Total/ Average	9,713	5,433	/29.6	/27.6	/17.7	/13.7

TABLE 18:

PROGRAM ENROLLMENT FOR ALL INDIAN STUDENTS 1972 to 1977

		1972/73		1976/77		1972/73 to 1976/77	
		Provincial	Federal	Provincial	Federal	Provincial	Federal
Gr. 10	Academic			3	21	4	45
	General	8	24	42	43	186	148
	Vocational					1	
	OEC	8		16		47	
Gr. 11	Academic				3		12
	General	9		38	14	108	31
	Vocational					3	
	OEC	1		4		12	
Gr. 12	Academic				3		3
	General	1		24	6	56	9
	Vocational					1	
	TOTAL	27	24	127	90	418	248
% Academic		0		2.4	30	1.0	24.2
% General		66.7	100	81.9	70	83.7	75.8
% Vocational		0		0		1.2	
% OEC		33.3		15.8		14.1	
Number of Graduates						16	12

SOURCE: "Evaluation of Indians in Federal and Provincial Schools in Manitoba" V. Kirkness for Department of Indian and Northern Oevelopment and Indian & Inuit Affairs 1978

TABLE 19:

DESTINATION GOALS FOR GRADE 10 - 12 INDIAN STUDENTS

	1976/77[1]		1979[2]	
	Federal	Provincial	Cross Lake	Total Survey
Total number of students	38	33	6	33
Destination:				
Work		9		
Further Training	7	6	5	209
Stay at Home	11	1		
Work at Home			1	75
Unemployed	4	5		
Unknown	7	8		119

SOURCE: [1]From "Evaluation of Indians in Federal and Provincial Schools in Manitoba" V. Kirkness for Department of Indian and Northern Affairs and Indian and Inuit Affairs 1978

[2]From 1979 Northern Youth Corporation Work Program survey by Department of

training whether it be in University, community college, vocational school, or as apprentice. 11% of the students in Federal schools and 15% in Provincial school stated that they would probably be unemployed while 27% would take any job. 29% of the Federal school students stated they wished to stay home.

These results correspond to a degree with results from the Northern Youth Core Work Program survey for 1979 that has been set up with the Department of Northern Affairs and the Department of Labour and Manpower (Table 20). 20% of the students stated a desire to work in their home community upon graduation, and an additional 21.5% would stay within Northern Manitoba.

This survey, however, found 58% of the students intending to continue training after high school. This is higher than the school study mainly due to the survey recipients. For instance, the Youth Core Study surveyed only the students employed by them over the summer, which in itself shows a motivated group of students, while Federal/Provincial schools survey all students. Therefore, the Federal/Provincial study probably portrays a truer picture of the actual situation.

(d) Staffing

The final issue regarding Federal schools is staff qualifications. Overall, 62% of Federal school staffing have their Bachelor's Degree, and 4% have their Masters. Provincial school staff have a 75%/2% split of Bachelor's and Master's Degrees respectively with a higher proportion of experience. For instance, 31% of Federal staff and 13% of Provincial staff had less than 1 year of experience. Cross Lake in 1976/77 had 3 teachers proficient in native language and 2 were status Indians. Four courses were offered in intercultural education and native studies. This year, there were 35 native teachers, 24 were local residents and 14 were non-resident. A number of these are teacher aides.

(e) Enrollment

The number of students attending high school and other training programs would be increased if made more readily available in the community (i.e. high school training made available on the reserve).

The major factor influencing increased education levels on the reserve is the need for more community participation in teaching, administration and general involvement. Qualified native teachers, program standards equal to those required by other educational institutions and additional native culture courses could also act as incentives to the student and older population also.

While the absolute number of students attending high school and higher levels of education is increasing, this is merely a function of the increasing school age population (Table 21). Typically, 70% of all students are between the ages of 6 and 12 and 93% are under 15. Utilizing current drop-out rates, by 1989, there will be an estimated 730 students and by 2003, 1,120 in the Reserve student population. A more optimistic view in which attendance rates are assumed to increase, suggests a school population which is 20% higher than current levels. For instance, as part of the new school facility program, projections on school enrollment were made. These estimates predicted 842 students in 1982 for the Reserve and Community areas. In that year, it was projected that 40% of those potentially entering Grade 12 would have dropped out of school.

Attendance, dropping-out and age-grade retardation are continual problems for the Cross Lake education system. These problems will only be rectified if greater emphasis is placed upon the provision of adequate educational facilities. The current school infrastructure situation is about to be corrected with the construction of a new school, beginning in 1981.

6.1.3 HEALTH

(a) Overall Manitoba Indian Health Condition

The health status of the Cross Lake Band is comparable to other Manitoba Registered Indians and has, therefore, been treated equivalent to regional data obtained regarding Manitoba Indians in general. Table 22 shows mortality by age and major classification for Cross Lake between 1976 and 1978.

Health status is based on 3 factors not related to the conventional definition of a "state of well-being", but instead to more objective measures related to absence of disease and premature death, etc. These factors are length of life, as measured by life expectancy and average age of death; morbidity or illness statistics; and mortality statistics, especially important when involving infants. Each of these factors merits special attention.

Lenth of life and expectancy have improved dramatically in recent years (Table 23). The average life expectancy for all Indians in 1964 was 32 years while for all

TABLE 20:

PREFERREO WORK LOCATION OF YOUTH CORE STUDENTS: OF 363

- Response from Cross Lake in ( ).

- 75 Home community (1)
- 21 Northern Manitoba (1)
- 10 Southern Manitoba
- 50 City/town (unspecified)
- 71 In Winnipeg
- 16 Thompson
- 3 Brandon
- 4 Flin Flon
- 22 Out-of-town
- 2 Out of Canada
- 51 Undecided (3)

SOURCE: "1979 Northern Youth Core Work Program Survey" Oepartment of Labour and Manpower and Department of Northern Affairs

TABLE 21:

PROJECTED SCHOOL ENROLLMENT AT CROSS LAKE

Age	% of Total School Population[1]	Cumulative %	Potential Enrollment 1983/84	1988/89	1993/94	1998/99	2003/04
6	9.8	9.8	63	71	83	96	110
7	10.2	20.0	65	74	86	100	114
8	9.9	29.9	64	72	84	97	111
9	10.4	40.3	67	76	88	102	116
10	10.7	51.0	68	78	90	104	120
11	9.6	60.6	62	70	81	94	108
12	9.5	70.1	61	69	80	93	106
13	8.9	79.0	57	65	75	87	100
14	7.9	86.9	51	58	67	77	88
15	6.1	93.0	39	44	51	60	68
16	4.1	97.1	26	30	35	40	46
17	1.8	98.9	11	13	15	16	20
18+	1.1	100.0	7	8	9	11	12
TOTAL SCHOOL INDIAN POPULATION* (34% of total population)		100.0%	641	728	844	977	1,119
TOTAL SCHOOL POPULATION			772 (842)**				

[1]Based on a 5 year compilation of statistics for all Federal reserve schools in Manitoba. Source: "Evaluation Report: Education of Indians in Federal and Provincial Schools in Manitoba" V. Kirkness with Department of Indian and Northern Development and Indian and Inuit Affairs 1978

*Total School Population: Cross Lake had 575 Indian students enrolled in 1977/78 of population of 1979. This represents 34%. Therefore, using 34% of the projected populations for 1978 - 2003, the estimated total school population is calculated. This represents a minimal projection based upon current enrollment rates.

**Projections done by the Department of Indian Affairs of 842 students projected for 83/84, 772 would be registered Indians.

TABLE 22:

MORTALITY BY AGE AND MAJOR INTERNATIONAL CLASSIFICATION: CROSS LAKE

	Age							
	1	1-5	6-17	18-29	30-39	40-64	65+	TOTAL
1) Infective and Parasitic								
2) Neoplasms							1	1
3) Endocrine, nutritional metabolic		1						1
4) Blood and blood forming organs								
5) Mental disorder								
6) Nervous system and sense organs								
7) Circulatory system						4	6	10
8) Respiratory system	2						1	4
9) Oigestive system						2		2
10) Genitourinary system								
11) Pregnancy complications								
12) Skin and subcutaneous								
13) Musculoskeletal							2	2
14) Congenital anomalies	1	1						
15) Perinatal morbidity and mortality	2	0						2
16) Systems of illness	2							2
17) Accidents/violence	_	_	1	7	1	2	_	11
TOTAL	8	2	1	7	1	8	10	37
Stillbirths (20 wks.)								1
Suicides				1				1
Alcohol related deaths				2	1	1		4
Infant Deaths								
Perinatal (0-6 days)								3
								3
Postneonatal	(3 respiratory)							5

SOURCE: Manitoba Medical Services Branch, Canadian Department of Health and Welfare 1979

Canadians it was 60. From 1974 to 1976, the average male Indian lived to 44 and females to 43, showing a 38% and 34% increase respectively. Canadians in general also increased life expectancy but only by 7% for males and 15% for females. Despite the improvement in the Indian life expectancy, the average life length is still only 2/3 of that for other Manitobans. The infant death rate for Indian children still remains almost twice that for all Manitobans (Table 24).

Morbidity statistics measure the amount of illness by hospital utilization, and the number of cases of a particular disease. Hospital utilization is measured in terms of separation or the number of patients leaving the hospital, and the number of patient days in hospital (Table 25). Overall in 1977, Registered Indians had 112% more separation per 1,000 population than all Manitobans in general and spent 41% more time in hospital. This shows a slight decline from the previous year where there were 114% more separations and 56% higher patient days than other Manitobans.

The leading diseases in the Registered Indian population are respiratory diseases, complications of pregnancy, infective and parasitic diseases (especially intestinal infections) and special conditions in infants. These occur at an average rate of 5.4:1, 2.7:1, 5.5:1 and 1.2:1 respectively for Registered Indians vs. Manitobans (Table 26). The highest diseases with over a 5.5:1 ratio include intestinal infections, acute Upper Respiratory Infections, pneumonia, tuberculosis, and delivery complications during pregnancy. This is discussed in more detail under mortality.

Overall, the number of deaths in children between the ages 0 to 4 due to respiratory diseases, has declined from 78 in 1963/66 to 4 in 1978. As a result of decreased respiratory problems, a new major cause of death has become established in the Indian population. This is death by accidents and violence. Many of these incidents, it should be noted, are alcohol related. For example, in 1978, there were 21 deaths in motor vehicle accidents; twice the average number of deaths between 1974 and 1978. Tables 27 and 28 summarize the 3 leading causes of death in the Indian population continuing to grow, the problem unless dealt with effectively, will also continue to grow.

(b) Cross Lake

In an attempt to determine specific health care issues at Cross Lake, a questionnaire was undertaken at the Health Clinic by the Local Planning Coordinator. The results of this survey are found in Table 29. The results revealted that the most common type of minor illnesses related to hypertension and respiratory problems. Gastric upsets and skin diseases were also minor illness problems of a less frequent nature. Of all major illnesses, respiratory problems were also the most frequent, including tuberculosis. Hypertension, neurosis and alcoholism were also considered to be major problem illnesses. Although respiratory illnesses are a minor illness that affects all age groups, upper respiratory problems are most common in the 0 to 14 year old group. Hypertension is a major illness most frequently affecting the 40 to 60 year old age group.

The remedy for much of the current illnesses can be found through better constructed modern houses which have adequate ventilation and running water. This is especially true of the seasonal variation of many of these illnesses which is related to the increased time spent in houses during winter months (Tables 30 and 31).

Conclusions

- that the high rate of population growth will continue into the foreseeable future
- that the impact of population growth upon community infrastructure will be severe
- that family formation will continue at a rapid rate in association with a likely continuance of the extended family concept
- that out-migration will stabilize or increase only slightly in the foreseeable future
- that the education system is far from reaching its positive contribution to long-term community development
- that current drop-out rates are severely impacting upon the long-term well-being of the community
- that the entire education program requires a major restructuring to foster greater educational attainment and values
- that the current enrollment rates are far below desirable levels, particularly for Grade 6 and beyond
- that the general health and life expectancy of Indian people in Manitoba is far below acceptable levels

TABLE 23:

LIFE EXPECTANCY:

		Average age of death 1964/66	1974/76	
Registered Indians	M	32	44	+ 12 yrs. (38%)
	F	32	43	+ 11 yrs. (34%)
All Canadians	M	60	64	+ 4 yrs.
	F	60	69	+ 9 yrs.

TABLE 24:

INFANT DEATH RATE: REGISTERED INDIANS VS. ALL MANITOBANS (deaths/1,000 live births)

	1965	1966	1967	1974	1975	1976	1977	1978
Registered Indians	60	56	49	33	32	23	35	27
All Manitobans	23	20	21	16	16	15	15	15

TABLE 25:

HOSPITAL UTILIZATION

		Registered Indians	Manitobans	% Different RI:M
Patient days/1000 pop.	1976	2,712	1,735	+56
	1977	2,549	1,811	+41
Separations/1000 pop.	1976	373.4	174.5	+114
	1977	360.0	169.9	+112

TABLE 26:

RATE OF OCCURANCE FOR MAJOR DISEASE CATEGORIES OF MANITOBA REGISTERED INDIANS (1977)

	Indian Rate	Manitoban Rate	Ratio of IR:MR
Respiratory Diseases*			
a) Acute URI	29.8	4.6	6.5 : 1
b) Pneumonia	28.3	5.2	5.4 : 1
c) Bronchitis & Emphysema	7.6	1.8	4.2 : 1
		Average	5.4 : 1
Complications of Pregnancy**			
a) Delivery no complications	648.9	624.7	1.0 : 1
b) Other complications of pregnancy	222.8	129.6	1.7 : 1
c) Delivery with other complications	193.4	35.8	5.4 : 1
d) Abortion	125.4	120.2	1.1 : 1
		Average	2.7 : 1
Infective and Parasitic Oiseases*			
a) Intestinal infections	24.6	3.7	6.7 : 1
b) Other viral diseases	3.0	.8	3.8 : 1
c) Other infectious diseases	2.9	.5	5.8 : 1
d) Tuberculosis	1.6	.3	5.5.1
		Average	5.5 : 1
Special Conditions and Infants			
a) Mature infants***	699.9	710.1	1.0 : 1
b) No apparent disease*	4.2	3.8	1.1 : 1
c) Immature infants***	22.8	17.4	1.3 : 1

* Rate per 1,000 population
** Rate per 1,000 live and stillbirths
*** Rate per 1,000 live births

SOURCE: Manitoba Medical Services Branch, Canadian Department of Health and Welfare 1979

TABLE 27:

MORTALITY OF MANITOBA REGISTERED INDIANS 1968 AND 1978 BY LEADING CAUSES

	Total Deaths		Rate/1,000 Population	
	1968	1978	1978	1978
A. Accidents				
0 - 4	11	7	1.70	1.09
5 - 14	5	13	.52	.94
15 - 29	23	34	2.93	2.71
30 - 44	13	31	3.19	5.33
45 - 59	11	8	4.67	2.60
60+	5	5	2.89	2.22
TOTAL	68	98	2.11	2.23
B. Respiratory				
0 - 4	27	7	4.17	1.09
5 - 14				
15 - 29		1		.08
30 - 44		1		.17
45 - 59	4	2	1.70	.65
60+	11	18	6.35	8.00
TOTAL	42	29	1.31	.66
C. Circulatory				
0 - 4		2		.31
5 - 14				
15 - 29		2		.16
30 - 44	1	6	.25	1.03
45 - 59	2	9	.85	2.92
60+	29	51	16.75	22.67
TOTAL	32	70	1.00	1.59

SOURCE: Manitoba Medical Services Branch, Canadian Department of Health and Welfare 1979

TABLE 28:

LEADING CAUSES OF DEATHS FOR ALL AGE GROUPS OF MANITOBA REGISTERED INDIANS

	1963 - 1966	1974 - 1978	1978
Accidents/violence			
- drowning		95	
- firearms		59	
- Motor Vehicle Deaths		55	21
- Burns		49	
Respiratory Disease			
- pneumonia (total)	94		16
- (0 - 4 age group)	78		4
- other respiratory disease			7
- bronchitis, emphysema and asthma			2

TABLE 29:

MINOR AND MAJOR ILLNESSES BY FREQUENCY, AGE GROUPS AND SEASON AT CROSS LAKE

	Yearly Occurences/Age Group		Seasonal Variation
Hypertension	550	+30	all seasons
Upper Respiratory	2,000	0 - 15	slightly more, winter and fall
Respiratory	1,200	0 - 70	slightly more, winter and fall
Gastric Upsets	600	0 - 70	all seasons
Skin Oiseases	1,200	5 - 70	worse in winter
Major			
Respiratory	350	0 - 70	slightly more, winter and fall
Tuberculosis	16	1 - 70	slightly more, winter and fall
Hypertension	150	40 - 70	all seasons
Psychiatric and Neurosis	100	20 - 50	worse in January, February and March
Alcoholism	frequent	17 - 50	all seasons

SOURCE: Nurse in Charge, Cross Lake Health Clinic, 1980

TABLE 30:

MINOR ILLNESSES BY CAUSE AND REMEDY AT CROSS LAKE

Illness	Contributory Cause	Possible Remedy
Hypertension	Obesity	Better eating habits
Upper Respiratory	Crowded housing conditions	More, better ventilated housing
Respiratory	Crowded housing conditions	More, better ventilated housing
Skin Diseases	Overcrowding, no running water	Running water, better housing
Gastric Upsets	Overcrowding, poor sanitation	Better housing, running water

TABLE 31:

MAJOR ILLNESSES BY CAUSE ANO REMEDY AT CROSS LAKE

Respiratory	Overcrowded houses, poor ventilation	More, better ventilated housing
Tuberculosis	Overcrowded houses, poor ventilation	More, better ventilated housing
Hypertension	Obesity	Better eating habits
Psychiatric and	Hereditary	Trained Native
Neurosis	Lifestyle conflict	Counsellors
Alcoholism	Lack of recreational facilities	Additional recreational facilities

SOURCE: Nurse in Charge, Cross Lake Health Clinic, 1980

- health problems in Cross Lake are directly related to less than desirable living conditions resulting from lack of service infrastructure, drafty, and poorly heated housing and below average living standards.

Recommendations

- that the continued high population growth of Cross Lake be recognized as a major socio-economic force requiring clear and concise policy review
- that community infrastructure be related to the significant population increase and family formation rates
- that the education system be considered as a critical community element requiring concerted and committed attention to increase educational program values, facilities and attendance/graduation rates
- that current low health conditions receive additional attention to upgrade the general living standards of the commubity.

6.2 SOCIAL CONDITIONS

The following discussion summarizes the existing social conditions at Cross Lake.

6.2.1 QUALITY OF LIFE

Cross Lake is a large community by northern standards. It has a combined treaty and non-treaty population of over 2,000 residents. In comparison to communities in southern Manitoba with a similar population base, Cross Lake is virtually devoid of any typical community amenities (Table 32). The Community clearly suffers from a lack of service infrastructure. For instance, many residents are required to hand-haul untreated water for consumptive and non-consumptive uses.

Although the community is situated within a scenic natural setting, residents are not able to avail themselves of the traditional patterns of life due to major disturbances to the landscape and water regime in the region as a result of hydro-electric development. Thus, the traditional compensation of surrounding natural areas does not offset lack of community amenities to the degree that occurred prior to hydro-electric development. Unless a major infusion of infrastructure development takes place, Cross Lake will continue to suffer lack of services crossing all aspects of life. The entire community is served by only one large store. In an attempt to break this monopoly and provide greater competition, the Cross Lake Band has begun a small store operation. This store had to be established in the Band's only community hall.

The Band lacks adequate recreation facilities, possesses scattered temporary school structures, experiences poor internal transportation connection and manages to operate from converted overcrowded administration buildings.

Sewer and water supply are not developed beyond the privy and water truck delivery system. As a result, all of these aspects contribute towards a low quality of life experience.

To determine the adequacy of the level of community infrastructure for Cross Lake, the facilities of Cross Lake were compared to the facilities of incorporated Manitoba communities of a similar population (approximately 2,000 people). The facilities examined ranged from such basic ones as sewer and water, to the more luxury items such as golf courses and tennis (Table 32). It shows Cross Lake to be very underdeveloped in terms of all facilities and services that are normally found in communities of comparable size.

While the other communities have treated running water to each house and sewage lagoons, Cross Lake relies on pit privies and water hauled by truck to each house. Cross Lake does have electricity, but it is limited in the means of heating houses. There is no garbage pick-up.

In terms of health services, Cross Lake has only a medical centre with one doctor as compared to a hospital with 3 or 4 doctors. The dentist is on a part-time basis. There is no personal care home.

Cross Lake has no fire protection but the number of police appears comparable to the other communities. While Cross Lake is shown to have six schools (including nursery schools) the older children are sent to other communities for their education.

Cross Lake has one community hall as compared to at least 3 in the other communities. It has no library, museum, swimming pool, indoor arena, recreation centre, theatre, or amusement centre all of which are present in the other communities.

In summary, Cross Lake appears to be an underpriviledged community in terms of basic utilities and services, recreational and cultural facilities and programs, professional and other services.

Thoroughly the quality of life compared to southern standards is low, the culture and pride of the community is very high. This is a result of a continued long and strong leadership in the community over the years. Cross Lake has traditionally sought to protect its residents' rights through a variety of means. The emphasis upon retention of culture has played a major role in this effort.

TABLE 32:

COMMUNITY FACILITY COMPARISON

Town and Population	Utilities			Heat			Local Services																
	Water	Sewage (Lagoon)	Electricity	Natural/Propane Gas	Coal	Oil	Fire Protection	Police	Ambulance	Garbage Disposal/wl.	K - 9	10 - 12	K - 12	Community Hall	Hospital	Senior Citizen's Home	Personal Care Home	Motel/Hotel	Apartments	Newspaper	Library	Museum
Boissevain (1788)	T/H	x	x	x	x	x	15	4	1	1	-	-	1	4	1	1	1	1	3	6	1	1
Carberry (1688)	W	x	x	x	x	x	30	10	1	1	1	1	-	3	1	1	1	3	1	1	1	1
Churchill (1715)	T/H	x	x	x	x	x	19	9	1	1	1	1	-	3	1	-	-	5	5	-	1	1
Gillam (1979)	T/H	x	x	-	x	x	20	5	1	1	1	1	-	3	1	-	-	1	-	2	1	-
Gimli (2247)	T/H	x	x	x	x	x	24	3	1	1	2	1	-	3	1	3	1	4	4	1	1	1
Lac du Bonnet (1589)	T/H	x	x	-	x	x	25	10	1	1	2	1	-	1	1	1	-	4	1	1	-	-
Morris (1818)	T/H	x	x	x	x	x	16	x	2	1	1	1	-	3	1	1	1	2	3	-	1	-
Pinawa (2093)	T/H	x	x	-	-	x	25	2	1	1	2	1	-	3	1	-	-	1	3	-	1	-
Powerview and Pine Falls (1813)	T/H	x	x	-	x	x	30	12	1	1	2	2	-	5	1	1	-	1	4	-	1	-
Roblin (2300	T/H	x	x	x	x	x	18	2	1	1	1	1	-	2	1	1	1	4	4	1	1	1
Russell (1884)	T/H	x	x	x	x	x	16	10	1	1	1	1	-	3	1	2	1	3	2	1	1	-
Souris (1886)	T/H	ST	x	x	x	x	20	x	1	1	1	1	-	8	1	1	1	2	9	1	1	1
Snow Lake (2061)	T/H	x	x	x	-	x	17	5	2	2	-	-	1	2	1	-	-	1	5	1	-	-
Stonewall (2400)	W	C/W	x	x	x	x	18	10	1	1	2	1	-	5	1	2	1	2	2	1	1	-
Cross Lake	T/U	-	x	-	-	x	-	4	-	-	6	-	-	1	M/C	1	-	1	-	-	-	-

TABLE 32:

COMMUNITY FACILITY COMPARISON (cont'd)

Town and Population	Trans.		Recreation					Business						Professional			
	Bus Service/daily	Air	Swimming Pool	Curling/Skating Rink	Golf/Tennis	Theatre	Amusement Centre	Retail Stores, etc.	Auto Services	Gas Station	Food Stores, etc.	Banks/Credit Unions	Real Estate/Insurance	Dentist/Optometrist	Doctor	Lawyer	Veterinarian
Boissevain (1788)	2	x	x	x	x	x	x	24	14	6	14	2	3	1	1	1	1
Carberry (1688)	4	x	x	x	x	x	-	14	9	5	13	2	2	-	3	1	1
Churchill (1715)	L/O	x	x	x	-	-	x	10	6	2	7	1	1	1/1	4	1	-
Gillam (1979)	x	x	x	x	x	x	x	8	2	1	9	1	2	2	2	-	-
Gimli (2247)	1	x	x	x	3	x	x	26	11	4	19	3	3	2/2	6	3	-
Lac du Bonnet (1589)	2	x	-	x	-	x	-	21	8	6	18	2	2	1/1	1	3	1
Morris (1818)	4	x	x	x	x	-	-	22	14	5	14	3	2	/1	3	4	1
Pinawa (2093)	1	-	-	x	x	-	-	10	2	1	3	2	-	1/1	3	-	-
Powerview and Pine Falls (1813)	2	x	x	x	x	x	x	10	9	3	9	2	1	1/1	3	1	-
Roblin (2300)	3	x	x	x	x	x	x	27	14	8	15	3	3	1	4	2	2
Russell (1884)	4	x	x	x	x	x	x	27	14	5	13	1	-	1/1	3	3	1
Souris (1886)	2	x	x	x	x	x	x	23	10	7	10	5	2	2/1	5	2	2
Snow Lake (2061)	1	-		x			x	7	3	3	9	1	1	1/1	1	-	-
Stonewall (2400)	1	-		x	x		x	23	17	5	13	4	1	2/1	6	4	1
Cross Lake	-	x	-	-	-	-	-	11	1	1	2	-	-	1	1	-	-

LEGEND

T - Treated
H - Running water in house
W - Private Well
CW - Common Well
ST - Septic Tank
MC - Medical Centre
LO - Local Only
O - Daily

To stimulate cultural development and awareness, the Cross Lake Band has coordinated a number of local studies and programs, including a history of the elders of the Band, a history of the Community and investigation of a locally controlled education program.

6.2.2 SOCIAL ASSISTANCE

Social assistance payments to Cross Lake amounted to more than $1.4 million in 1978/79. This is a 42% increase since 1975/76. There are three major areas of social assistance. These are health, social and economic (Table 33). In all three, the total payments have increased substantially. For social assistance, however, the increase has been largest at 45%. Economic assistance, however has witnessed an increase of 36% while health assistance has grown by 22%. An analysis of the number of caseholds reveals that the largest increase has been in the area of economic assistance in which 635 new caseloads (22% more) have occured. Social caseloads have increased slightly while the number of health caseloads has declined. In terms of absolute number of people assisted, only economic assistance recipients have expanded in numbers (Graph 4). This small increase in absolute numbers is probably a reflection of the decreasing size of families or caseloads. As a result, although the actual number of caseloads has increased by 12% since 1975, the total number of people served has grown by only 3.3%.

In the period 1978/79, the average monthly social assistance payment per caseload was $268.00. There was an average of 3.2 persons per caseload during this period for a monthly total of $85.00 per person in social assistance.

The greatest portion of social assistance goes toward economic assistance, amounting to 60% of total payments. Those receiving such assistance include seasonally unemployed as well as temporary and permanent unemployed. The latter constitutes the largest group. The number receiving economic aid is double the number for health and social reasons combined. Since 52% of the potential labour force is unemployed, this figure could be greatly reduced. If one assumed the entire 60% of the 1978/79 economic assistance program was going to the permanently unemployed, then, by reducing permanent unemployment levels by 1/4 (down to 40%), payments could be reduced by $500,000. Peak payment periods for economic assistance per year are in November or December followed by a slight decrease in February through to April or May, at which time a second increase occurs. Levels decrease in the summer and fall, to rise again in November. These increases are associated with seasonal job losses such as trapping, fishing, or other jobs which become phased out during the winter, such as construction and housing projects.

The total number of people requiring health assistance payments fluctuates yearly, with peaks in late fall (October/November), late winter (January to March) and a large peak in spring (May to June). It is during these periods that respiratory problems caused by poor housing and water quality problems caused by spring run-off occur. In relative terms, though, numbers have decreased from 10.4% in 1975 to 9.7% in 1979. In effect, the payments have increased primarily as a result of inflation more than actual increased caseloads. As a result, health conditions seem to be stabilizing. This is likely a result of better water delivery and new local health care facilities.

Social assistance for social problems had a large jump from April to January of 1975/76, followed by a decline to January 1977 and since then, has increased gradually to the present level.

The only other major peak was October 1979. These social caseloads are often on-going cases which are a reflection of the difficulty of dealing with chronic unemployment, poor health and low quality of life situations. It is only through massive effort at removing the cause of the problems that social assistance will be drastically reduced.

Conclusions

- that Cross Lake is an underpriviledged community when compared to communities of similar size in southern Manitoba
- that Cross Lake has not appreciably improved its socio/economic system during the past few years
- that major social assistance will continue to be required for the foreseeable future
- that current social assistance maintains many families at a subsistence level

Recommendations

- that a massive infusion of infrastructure will be required to bring Cross Lake up to a standard common in other similar communities
- that the cycle of social assistance will be broken only when the recipients of such assistance are provided a means of an alternative lifestyle.

6.3 ECONOMIC CONDITIONS

Cross Lake has a large diversified work force, the majority of which is underemployed or unemployed. As a result, long-term economic development is severely hindered by the lack of long-term internal employment opportunities.

TABLE 33:

SOCIAL ASSISTANCE AT CROSS LAKE 1975-1980

	1975/76	1976/77	1977/78	1978/79	1979/80 (to December 1)
Total Social Assistance Payments	988,761	1,163,317	1,257,424	1,405,990	1,009,386
Health	132,979	139,956	140,493	163,076	123,768
Social	271,412	304,511	328,165	370,438	257,394
Economic	580,215	705,962	770,815	844,499	598,531
Caseloads	4,615	4,431	4,782	5,259	3,718
Health	529	478	420	485	348
Social	1,216	1,108	1,121	1,269	957
Economic	2,870	2,845	3,241	3,505	2,413
Number of People	15,896	16,125	16,024	16,422	11,177
Health	1,658	1,634	1,502	1,633	1,089
Social	3,883	3,486	3,565	3,876	2,579
Economic	10,355	11,066	10,957	10,913	7,509

TABLE 34:

PROJECTED ON-RESERVE EMPLOYMENT NEEDS

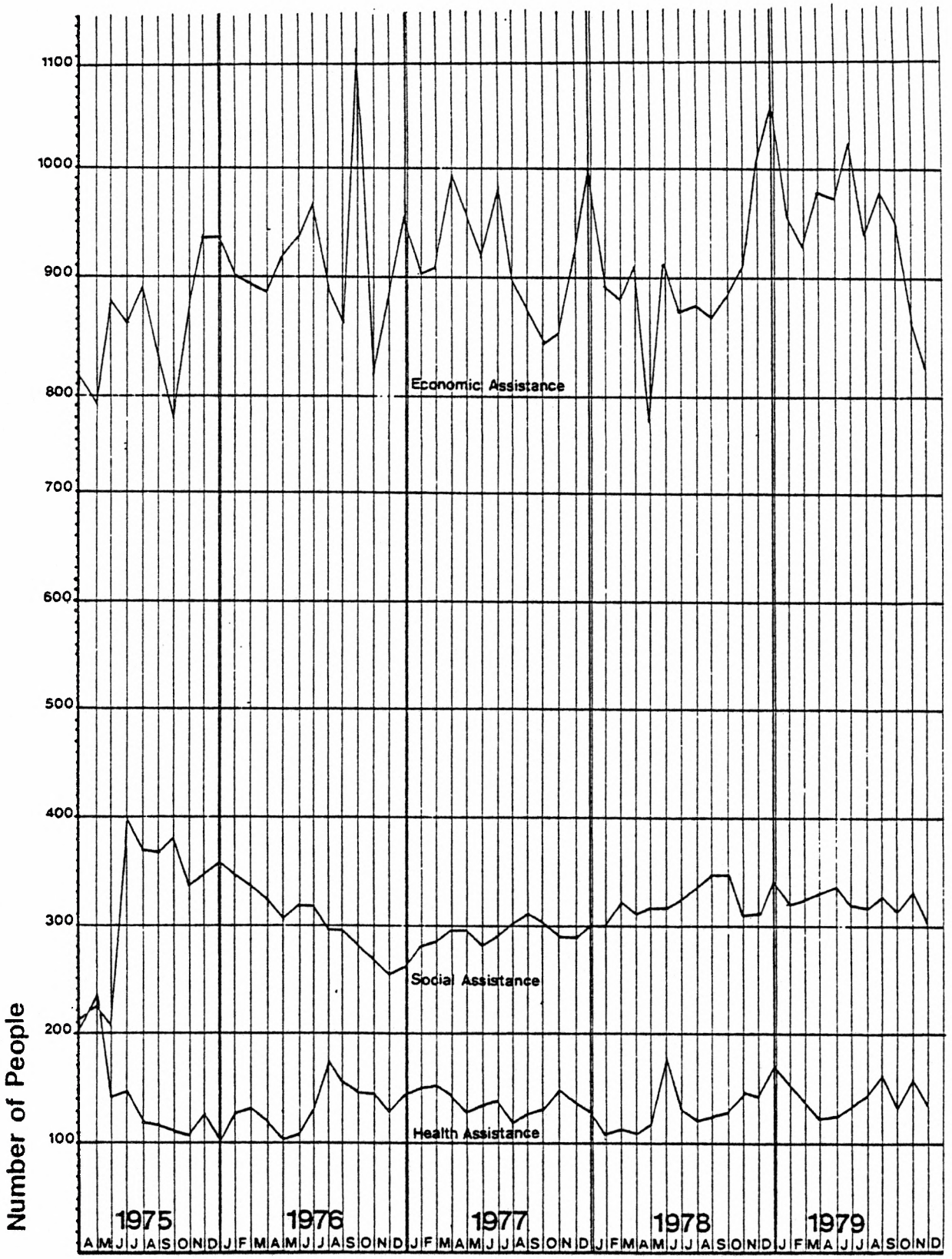
	1978	1983	1988	1993	1998	2003
On-Reserve Population	1,714	1,885	2,140	2,482	2,874	3,292
Work Force						
Potential Labour Force*	893	1,115	1,332	1,518	1,638	1,830
Probable Work Force**	629	827	1,041	1,238	1,390	1,497
Projected Work Force***	377	496	625	743	834	898
Current level of permanent employment (36% of actual work force)	137	178	225	268	300	323
Additional jobs needed to maintain current level of permanent employment	-	41	88	131	163	186
Additional jobs to maintain 100% permanent employment of probable work force	240	318	400	475	534	575

* Potential Labour Force: all individuals between 15 and 64 as defined by "Mid-North Manitoba" O. Teillet, Manitoba Department of Mines, Natural Resources and Environment

** Probable Work Force: all individuals between 20 - 59

*** Projected Work Force: 60% of Probable Work Force

NOTE: The Manitoba Bureau of Statistics in 1977 used 61.6% as the average participation rate of the potential labour force.



Graph 4

Social Assistance

In turn, because there does not exist a strong community economic base, the ability to build up a service industry is very difficult. This lack of internal service industry causes a continued outflow of available dollars and thus discourages the investment and development of local community employment opportunities. The problem is cyclic and discouraging. Only through a major break in this continual chain of events will Cross Lake be able to expect an enhanced economic climate.

6.3.1 ECONOMIC OVERVIEW

Like many northern communities which have developed without a strong local industrial base, Cross Lake has three distinct economies. These are the traditional, wage and transfer payment economies. Together, these economies sustain the economic life of the community. It is readily apparent that reliace upon the traditional and transfer economies does not provide for major economic stimulus. This is a result of the fact that both provide basic or minimal income to those affected. Thus, there does not exist a significant opportunity to provide additional community benefits through internal secondary expenditures. Rather,. the emphasis upon traditional economic opportunities (trapping, commercial fishing, sustenance hunting, fuel log cutting, domestic fishing) provides minimal dollar return for those involved.

In fact, in areas of domestic goods production, items are often provided for no charge or in return for future favours or immediate barter. Such economic procedures do not generate secondary spending. Even so, in Cross Lake such efforts are critical to the economic well-being of the community. Without such traditional activities, the community would be even more dependent on outside infusion of dollars.

Transfer payments do provide a major stimulus to the local economy. They provide income where income would not otherwise exist. Such income, however, is usually of a basic sussistence level. For instance, the average monthly amount of social assistance received by each caseload in 1978/79 was $268.00. Considering the fact that there was an average of 3.2 individuals per caseload, then, the amount of income received from social assistance would not be of an amount which could support a family beyond a subsistence level. As a result, expenditures from such assistance would be generally toward basic needs such as food, fuel and medical requirements. Benefits of such expenditures within the community would be minimal. The majority of such purchases would find their way out of the community with little or no recycling value in Cross Lake.

In view of the fact that only 36% of the actual band work force is employed full time, it is no wonder that Cross Lake has not been able to expand its economic sector. This is due to the fact that only 36% of the population is in a situation where income likely surpasses daily need to create a surplus of potential money for purchase of community services. Thus, the real potential internally generated economic market for Cross Lake is severely limited by the small wage economy base.

6.3.2 EMPLOYMENT

In July 1979, a detailed employment study was undertaken by the Cross Lake Band. This study noted that there were 522 jobs available in or out of the community of Cross Lake.

Of these 522 jobs, only 30% or 158 were full time. The remainder (366) were temporary or seasonal. Thus, 70% of all jobs are of a short-term duration. The ramifications of these numbers are enormous.. Out of an actual labour force of 377 on-reserve residents, there are only 158 full-time positions available. Of these 158 positions, however, some are held by off-reserve residents. In fact, the employment study found that there were only 137 band members who were employed full-time. This represents a 36% full-time employment rate or 64% unemployment rate for band members.

The employment study classified employment in the following categories and numbers:

Type	Band Member Male	Female
Self-Employed		
Commercial Fisherman	10	-
Oomestic Fiserhman	2	-
Registered Trapper	158	1
Employed		
Band Council	6	2
Band Staff	8	4
Band Maintenance	2	1
Native Teacher	2	16
Radio Station	2	3
Hudson Bay Company	6	9
School Maintenace	4	-
School Caretakers	-	8
Truant Officers	1	1
Band Constables	3	-
Cable Ferry	3	-
Main Barge	2	-
Airport	2	-
Post Office	1	-

Type	Band Member Male	Female
Employed		
Welfare Workers	-	3
Health Workers	1	2
School Labourers	4	-
NAAP	2	-
Carpenters	24	-
Painters	3	-
Road Construction	5	-
Welder	1	-
NFC	1	1
Economic Development		
Charlie's Inn	1	2
P.D.C.	6	-
Sinclair's Motor Repair	3	-
Marios Bulk and Fuel	3	-
Handicraft Shop	2	-
Bakery Shop	2	-

The labour force available in Cross Lake far exceeds the number of total seasonal, temporary and full time jobs. For instance, Teillet calculated the potential labour force to be 893 in 1978. The Outreach Councillor Smith indicated that the potential labour force was 683 in 1979 and this study suggested 629 in 1978. Thus, it would appear that the actual in-community survey by Smith closely approximates the potential labour force calculated by the community planning study. Assuming that only 60% of this potential labour force is desirous or capable of employment outside the home, then, the actual work force will likely be 377 individuals.

The actual labour force at Cross Lake is one of the highest in any northern Manitoba community, outside of the modern industrial centres such as Thompson and Snow Lake. In fact, Cross Lake is second only to Norway House as a non-industrial community with an actual labour force over 350.

If nearly full employment is to be achieved, then, a dramatic increase in the creation of full time positions will be required (Table 34 and Graph 5). For instance, an additional 359 positions will need to be created by 1983 to provide full employment to Band members (i.e. the probably work force or 60% of all adults between 20 and 59). Even to meet the unacceptable current level of unemployment rate of 64%, there will have to be 1978 jobs available or 41 new positions created by 1983 to maintain the status quo (Graph 6).

Within the Northern Flood Agreement (Article 21) an Employment Task Force was to be established to facilitate local employment in the hydro development program including training and education. To date, this Employment Task has been ineffective even though Hydro is now examining the development of additional installations. At the present time, Manitoba Hydro has an agreement with the Manitoba Labour Council whereby Manitoba goes through Canada Manpower to determine local non-union labour availability prior to seeking union member workers. Since much of the labour requirement is for technically-skilled people, many northerners are not qualified for such employment.

In addition, the search program for local skills is limited to 48 hours. Until adequate training is provided through the auspices of the Employment Task Froce, local northerners will continue to be passed in Hydro development programs.

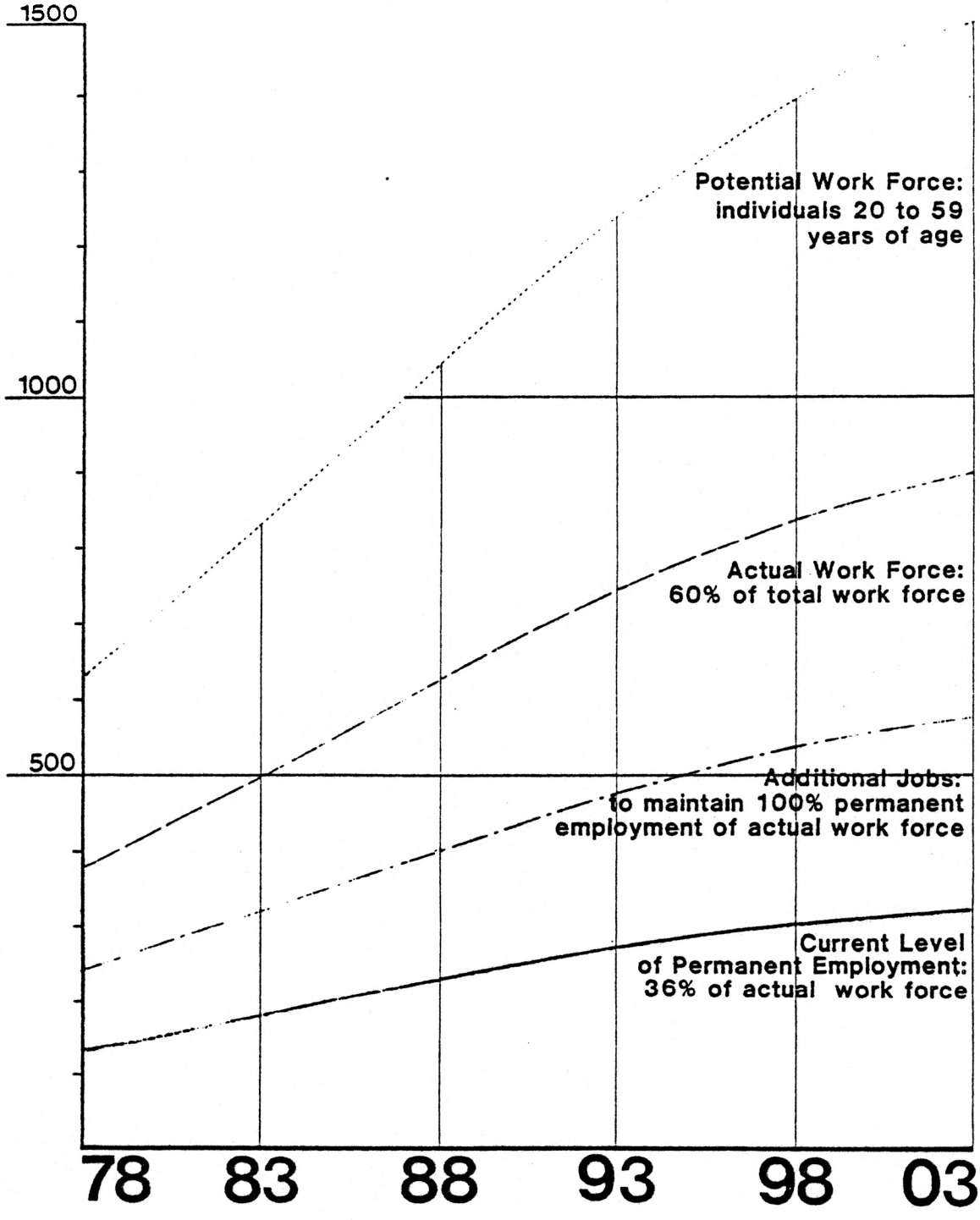
It is clear that seasonal or temporary employment constitutes a major element of the Cross Lake work force. These seasonal or temporary employment opportunities provide the bulk of employment during the summer as construction and commercial fishing jobs and in the winter as trapping. Since such temporary or seasonal employment is critical to the total work force, any economic development program must emphasize the retention of such employment opportunities. In the long-term, however, Cross Lake residents must be able to make a choice between continued temporary work and longer full-term employment. Seasonal employment in traditional areas such as trapping, commercial fishing and logging should continue to be encouraged as viable employment opportunities. Such traditional activities provide at a minimum, opportunity for participation in the work force and self-sustaining pride in work product. In a labour force devoid of full-time employment opportunities, these elements are essential to long-term community health.

The reality of the finite resource base, however, indicates that the number of potential additional jobs in this sector will be small in terms of total employment need.

One area of occupation that has not been adequately recorded, relates to day to day provision of domestic fish, wild game and fuel for heating. These occupations go unrecorded as income generating occupations. Even so, these occupations often play an important role in the economics and employment of the community.

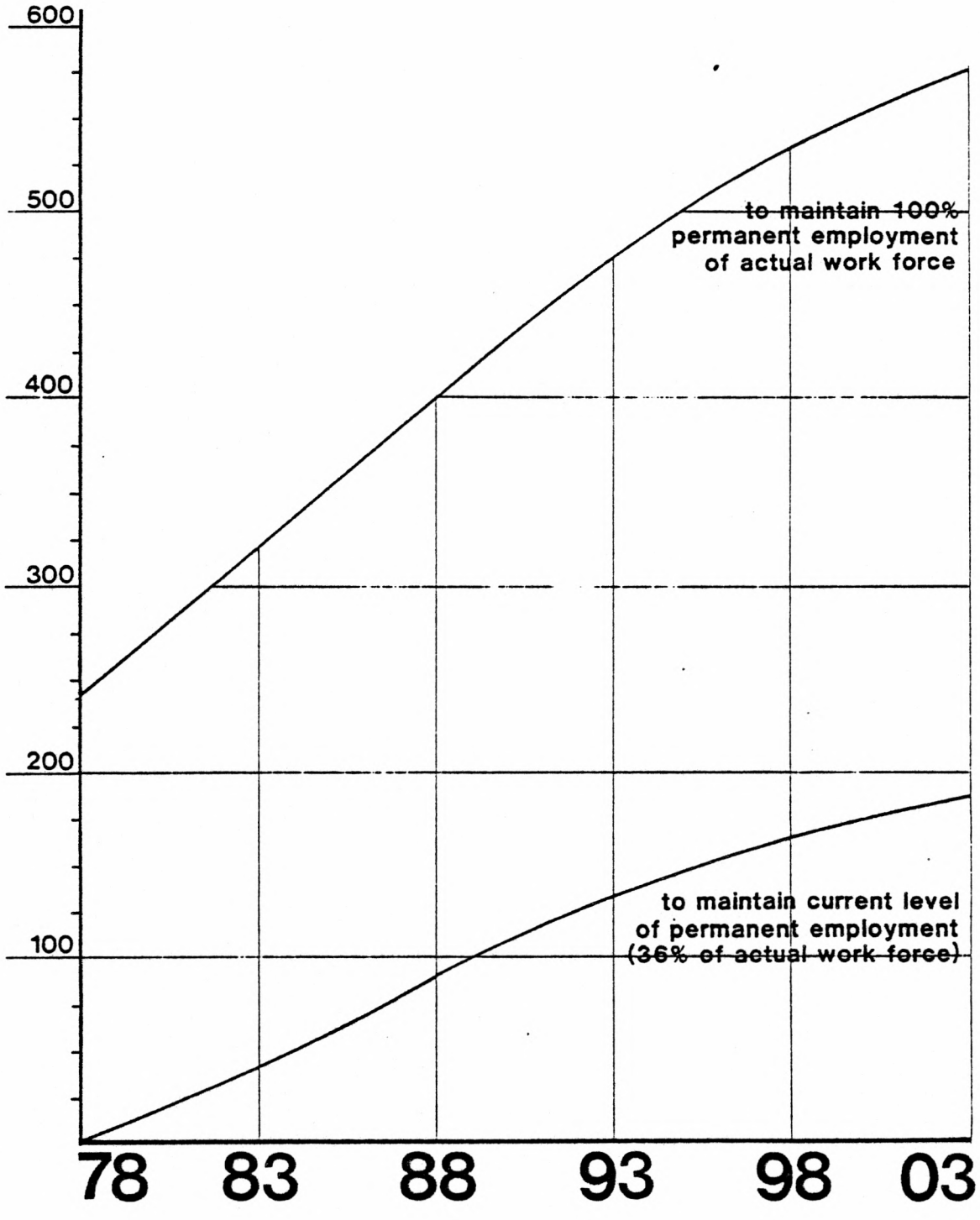
The major employment sectors in Cross Lake are trapping/fishing, Cross Lake Band, the school, and the Hudson Bay Company. A number of government services and local businesses also play a role in employment at Cross Lake.

Commercial fishing and trapping account for 7% and 31% of total employment respectively, involving 36 fishermen and 162 trappers. Combined, these account for 54% of the seasonal/temporary employment areas. Many of these are the same individuals working in both areas. The 1978/79 fishing season brought in some $44,893 for Cross Lake with an average income/operator of about $4,000/year. The 1979 summer season has a projected



Graph 5

Projected On-Reserve Employment



Graph 6

Jobs Required

value of $48,300 for Cross Lake at market prices. Trapping brought in some $125,981 in 1977/78 worth roughly $802/trapper.

The Cross Lake Band employed 124 people last year, or 24% of all employment. 33 (or 24%) of these positions were full-time jobs in the areas of administration, maintenance, patient transport, water haul and as truant officers and constables. The remaining temporary jobs were in construction, carpentry, marine services, substitute teaching and Young Canada/Canada Works Services.

The Community Council employs 6 people, 5 full time and 1 part time in administration, maintenance and constable services. These positions are traditionally held by non-treaty residents. The Cross Lake School provides 41 permanent jobs and 7 part-time seasonal jobs in teaching, maintenance, and administration with 71% of these jobs going to local people. The remaining 29% are non-residents, all in teaching positions. The Hudson Bay Company employs 29 full-time staff, 26 of which are local people and the nursing station employs 10 full time and 3 part-time staff. Overall, the Bay accounts for 5.6% of the employment at Cross Lake.

There are 13 local businesses at Cross Lake including a bakery; (3 full-time staff), inn (8 full and 8 part-time staff); airport (5 full-time staff); handicraft shop (2 full-time); motor shop (3 full and 6 part-time); grocery store (2 part-time); taxi service (4 full and 4 part-time); bulk fuel supply (3 part-time), marine service (8 part-time staff); an additional 3 small confectionnairies; and 3 full-time, 12 part-time school transporters. Of the total 62 employed in local businesses, 33 are part-time; 29 are full-time and all but 6, are local people. The remaining 42 people are employed in various government areas including labour and Manpower, Outreach, R.R.A.T.S., M.H.R.C. Post Office, A.A. Centre, R.C.M.P. and Young Canada Works. Thirty-one people (74%) are part-time/seasonal staff and 38 people are local residents.

Of the 522 jobs, 46 could be classed as professional positions, 78 as semi-skilled labour, 135 as unskilled labour, 198 are trappers and fishermen and 65 are unstated.

With increased education levels, the balance may swing more to semi-skilled and professional work.

In summary then, employment in Cross Lake is largely seasonal/part-time with 55% of the total employment being generated by the Cross Lake Band and trapping. The potential labour force by 1983 will be about 1,115 people but the actual labour force will be about 496 people. To maintain a 36% permanent employment level, 41 jobs will be required by 1983 and 186 jobs are required by 1983 and 575 by 2003.

6.3.3 INCOME

The average income in the Cross Lake census district (#32) in 1979 was $5,900/person (Bureau of Statistics, Maitoba Department of Economic Development). This average includes Thompson, which appreciably raises the total due to its average income of $11,700/person (in 1976) and accounts for 55% of the total tax returns assessed (Table 35). Census District #22 can be compared to the Manitoba average of $9,300/person, and in turn, to the Canadian average of $17,700. Therefore residents in this census district are earning at least 37% less than most Manitobans and 66.7% less than the Canadian average. The disparity increases substantially when the abnormally high average income from Thompson is excluded. Such an exclusion reduces the real average income for most of the native communities to less than $800 per person (Northlands Agreement).

The low income cut-off levels for family units in 1978 are reviewed in Table 36. The average poverty level for a 3 person family (Manitoba average) is $7,900. Depending on location, this can be as much as $9,000 for urban situations, or as little as $6,500 in rural settings. Using the lower case, Cross Lake like most northern native communities is 64% under the accepted rural poverty level. Given that the average family unit in Cross Lake has 5.3 members, then, each family would need an annual income of between $8,663.00 and $9,507.00 to maintain the 1978 poverty level.

The source of income for Cross Lake residents is provided mainly by the large number employed by the Cross Lake Band of Indians, trapping and fishing activities and transfer payments. A diversity of income sources does not currently exist at Cross Lake.

(a) Cost of Living

The cost of living has an important influence on the economy of Cross Lake. Generally, living costs are 30% higher in Cross Lake than in Winnipeg with the highest levels being in essential commodities such as home heating and food. An outline of spatial indices relative to Winnipeg for a number of communities and for various commodities is given in Table 37. Of the 14 centres examined, Cross Lake had the third highest fuel and food costs. For instance, domestic heating using fuel oil is 50% higher than Winnipeg. Much of the excessive costs can be attributed to the isolation of the community and special transportation requirements. Even so, a review of the Norway House index indicates that the all-weather road has reduced costs for that community only in the order of 2%

TABLE 35:

INCOME: CANAOIAN, PROVINCIAL AND CROSS LAKE

	1977	1978	1979
Average Canadian Income			
- family		$ 21,346	
- singles		8,861	
- for all units	$ 16,764	17,710	
Average Manitoban Income			$ 9,300
Average Cross Lake Census Oistrict Oistrict Income			5,900

TABLE 36:

LOW INCOME CUT-OFF OF FAMILY UNITS 1978

SIZE OF AREA OF RESIOENCE

# of people	500,000 and over	599,999 - 100,000	99,999 - 30,000	less than 30,000	Rural
1	4,844	4,534	4,403	4,050	3,520
2	7,020	6,574	6,384	5,871	5,108
3	8,957	8,390	8,142	7,494	6,516
4	10,654	9,976	9,684	8,910	7,747
5	11,909	11,149	10,826	9,963	8,663
6	13,074	12,241	11,886	10,935	9,507
7	14,336	13,419	13,031	11,987	10,424

TABLE 37:

COMMOOITY SPATIAL INOICES FOR SELECTEO MANITOBA COMMUNITIES 1979

Winnipeg = 100

	Fuel Regular	Fuel Oil	Propane Gas	Natural Gas	Electricity	Food for Home Consumption
Beausejour	99.9	101.4	100.2	100.0	113.5	101.6
Brandon	104.4	104.7	104.4	86.6	110.1	100.7
Cross Lake	128.8	149.6			113.5	127.5
Oauphin	104.4	105.4	104.8	99.3	110.1	100.1
Flin Flon	118.3	110.3	94.5		110.1	110.2
Gimli*		104.6	100.6	100.0	113.5	104.1
Island Lake	166.7	222.8			139.2	143.5
Leaf Rapids	123.6	119.8	119.6		113.5	113.4
Morden	103.5	102.8	112.6	91.0	113.5	99.7
Norway House	126.4	143.8			113.5	119.5
Portage la Prairie	103.8	102.4	101.8	103.8	110.1	98.0
Split Lake	137.7[1]	208.0			113.5	132.9
The Pas	113.9	105.5	94.5		110.1	107.3
Thompson	123.9	113.4	94.5		113.5	104.7

*Average of June, September and Oecember figures [1]Based on September and Oecember figures only

SUURCE: Manitoba Bureau of Statistics: Gasoline Prices Survey, Survey of Fuel Commodity Oealer, and Prices Monitoring Survey.

and 8%. As a result, after completion of the all weather road, Cross Lake can still expect to pay approximately 25% more for essential items than Winnipeg.

When excessive cost of living in Cross Lake is compared to the minimal average income (25% - 30% higher cost of living than Winnipeg and 100% less average income from the average Manitoban), it is no wonder that the economic base of Cross Lake is in such a poor developed state.

(b) Expenditures

Detailed Canadian and Winnipeg expenditures as a percent of total income is given in Table 38 as completed by a Statistics Canada survey in 1976. The only rural expenditure figures available of which Cross Lake is more appropriately qualified, are from a 1969 federal survey. These are also included in Table 38.

Conclusions

- that Cross Lake is in a very poor state of economic health
- that the current high cost of living is a prohibitive factor for positive local economic development and a severe hardship for residents
- that the low employment rate of Cross Lake residents is a major problem in the community requiring clear resolution
- that the actual labour force Lake is one of the highest in northern Manitoba and that it will continue to grow at an unprecedented rate
- that seasonal and traditional employment opportunities will continue to be an important employment alternative to many residents
- that the service industry is a major full-time employer
- that the manufacturing and production industry is virtually non-existent

Recommendations

- that a major emphasis must be placed upon the development of an employment strategy
- that the high cost of living must be attacked and lowered
- that the level of income in the community from all sources must be significantly increased to provide necessary secondary internal benefits and increased standard of living
- that the primary, secondary and tertiary production and manufacturing industries be emphasized so that Cross Lake becomes more self-sufficient for produce and finished items.

TABLE 38:

	Canada[1]	Manitoba[2]	Winnipeg[1]	Cross Lake[3]
Income	17,700	9,300	15,500*	5,900
Food				
% of income	16%	16.3%	16.3%	21.4%
Cost	2,832	1,516	2,527	1,263
Shelter				
% of income	15.7%	17.4%	17.4%	14%
Cost	2,779	1,618	2,697	826
Clothing				
% of income	7.0%	6.9%	6.9%	8.8%
Cost	1,239	1,642	1,070	519
Health and Personal Care				
% of income	3.6%	3.8%	3.8%	5.9%
Cost	1,637	353	589	348
Transportation				
% of income	12.3%	12.4%	12.4%	15.1%
Cost	2,177	1,153	1,922	891
Recreation and Education				
% of income	5.1%	5.21%	5.21%	4.6%
Cost	903	485	808	271
Tobacco and Alcohol				
% of income	3.3%	3.2%	3.2%	3.6%
Cost	584	298	496	212

*1976 figures

[1]The 7 major categories have been calcuated using percents from a Statistics Canada Survey completed in 1976 on Summaries of Family Expenditures. The survey was done based on 8 major cities, of which Winnipeg was one.

[2]I have assumed an equal percent for Manitoba as represented by Winnipeg

[3]Percent for this from a 1969 Statistics Canada Survey. This is the latest data available for rural expenditures, and is the more appropriate classification category for Cross Lake.

7. *Natural Resource Consideration*

7.1 PHYSICAL ASPECTS

7.1.1 PHYSIOGRAPHY

Cross Lake falls in the Superior Geologic Province of the Precambrian Shield physiographic region. To the north of Cross Lake in the Sipiwesk area, lies the Churchill Geological Province and to the south and west, limestones are found. The Churchill/Superior provinces display profound unconformities, with the contact between the two marked by a strong north-east striking gravity anomaly. This anomaly, along with intense formation and serpentine intrusions suggests an ancient mountain chain. It is within and adjacent to this type of anomaly that mineral deposits are often found.

The Superior Province is comprised of predominantly easterly striking structures of valcanic rock with some sedimentary character present. The Cross Lake area itself is dominantly precambrian granitic, dating back 2,300 million years.

7.1.2 LANDFORMS

Landforms of the Cross Lake area are dominantly glacial related with a number of modified moraines and esker/kame complexes. Glacial Lake Agassiz erosion and organic deposition are the major modifying factors resulting in a variety of surficial deposits. Lacustrine clay underlain by fine glacial till, as a result of Lake Agassiz deposition, with peat plains in depressional areas are most common. The undulating to gently rolling topography is controlled by the granitic bedrock and rock outcrops are also frequent.

Shorelines vary from low bedrock, as found around the community with various depths of surficial deposits to steep bedrock shorelines, which are not common to the area and characteristically have very little soil (Table 39).

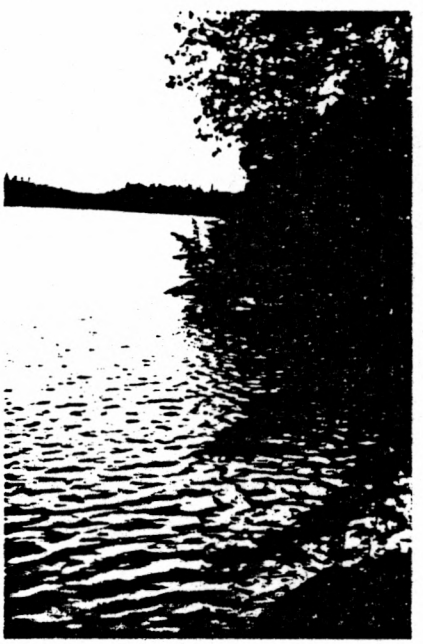
Low alluvial shorelines, which generally have very low backshore relief are uncommon in the community vicinity. Soils are generally grey and brown wooded with thick organic soils in depressional areas. Local topographic features range from 600 to 800 feet with the average backshore being 700 - 725 feet a.s.l. The bedrock controlled topography has directly affected the depth of soil deposited over time. Thus, depressional areas contain deeper often poorly drained soils of an acidic nature. Upon better drained upland sites, soil deposits range from a few inches to some 10 feet in depth. Throughout, however, bedrock interspersions break up the soil deposits into islands of varied soil type and depth.

7.1.3 VEGETATION

Cross Lake falls in the boreal forest region, which is dominated by coniferous forests, typically black spruce and tamarack. Jack pine, trembling aspen, balsam poplar, balsam fir, white birch and alder also occur with relevant frequency.

Vegetation closely corresponds to shoreline type and surficial soil deposits. On moist sites, black spruce and feather moss communities exist whether the soils are poorly drained organic or better drained clays and tills. Lakes and river shorelines with better drainage often have mixed stands of black and white spruce, and deciduous vegetation is always most common on higher ground and better soils. Successional stands include trembling aspen, jack pine and balsam poplar on lacustrine clays, alluvial deposits and clays and alluvial deposits and clay tills. Secondary undercover is quite rich and diversified on most sites.

Saturated sites on poorly drained organic soils support mostly sedge, willow and alder where flowing water or fluctuating water occurs. Marshes of sedge, duckweed and a variety of submergent and emergent species



Inland lake unaffected by hydro development

occur where shallow, protected waters occur on organic soils.

7.1.4 DRAINAGE

Waters flowing into the Nelson River and subsequently through Cross Lake originate as far west as the Rockies, as far south as the Mississippi headwaters and as far east as Lake Superior.

Manitoba itself has eleven principal watersheds and 7 major river systems, among these the Red and Winnipeg river systems flow through Lake Winnipeg to the Nelson, and the Saskatchewan and Churchill River occupy the mid-north area on their way to the Hudson Bay. The Nelson River drops some 217 metres from Lake Winnipeg to Hudson Bay and as a result, has provided a good source of hydro-electric development. The waters of the Nelson, from the east and west channels, meet in Cross Lake. The renewal rate, or time of water changeover is about 6½ days for Cross Lake.

Cross Lake itself has an area of some 221 square miles a maximum depth of 84 feet and a mean depth of 7 feet (Table 40). The lake levels at Cross Lake without the Jenpeg Hydro-development, have fluctuated to a maximum of some 10 feet. The peak period of flow was early summer with the low period in winter. With the addition of Jenpeg, the peak flow has reversed, fluctuations have increased, and the mean water level has reduced from 678.5 feet to 677.9 feet.

Because the lake provides the community with its water supply, as well as a good portion of its income through fishing, it is important to regard water conditions of Cross Lake as critical to the community (see Water Supply as well). The effect of Jenpeg on the lake levels, and flow of the Nelson has changed a number of functions regarding the community including fishing and transportation regimes and methods.

7.1.5 WATER QUALITY

Water quality has been an on-going problem at Cross Lake as a result of the linear nature of the houses along the shoreline and continued reliance by some residents for hand-hauling water. During spring run-off the lake water supply can be severely affected with pollutants. Data from the Environmental Protection Division, indicates that the quality of water at a sample point in the settlement of Cross Lake has remained virtually unchanged. Even so, the reporting of varied concentrations of total coliform counts throughout the sampling period indicates that the water quality of Cross Lake within the community is not always of a safe standard. For instance, over the five year period between January 1975 and January 1980, 39 water samples were taken. Of this total, 7 samples had total coliform (mpn/100 ml) in excess of 150. Since coliform levels of this amount can pose a health problem, an alternative water source is required. To this end, a system utilizing Albert Lake was installed.

Chemical quality studies done in 1975 by Manitoba Hydro prior to the construction of Jenpeg show that basically, the standard of water quality was good except for turbidity levels and colour. These vary with the season as is common with the other outlet lakes in the area. The transparancy of Cross Lake was the highest of all the lakes, varying locally with shoreline surface. For example, very clear water is found in areas of bedrock shoreline while "muddier" water is situated where surficial deposits of silt/clay are present. Generally, the water replacement in Cross Lake is about every 6.5 days, keeping the lake relatively "clear". It should also be noted that Cross Lake, with a depth of 7 feet is very shallow and, as a result, is isothermal in ice free conditions. Mixing of the water, therefore, is not hindered by thermal stratification.

7.2 CAPABILITY FOR DEVELOPMENT

It is essential that those areas most capable of supporting development are clearly demarcated. In this way, only lands which are known to be capable of supporting development will be recommended for development consideration. As a result, construction and servicing costs will be kept to a minimum while the potential for detrimental environmental impact will be considerably reduced.

7.2.1 METHOD

Two methods were utilized to determine land capability without undertaking exhaustive field investigation. These two methods are complementary and integrated.

Capability for development at Cross Lake has been determined using a classification system designed by Doug Mazur for the Canadian Shield portion of Manitoba and aerial photographic interpretation with limited ground truthing. Mazur's "A Method of Land Analysis and Classification for the Canadian Shield Portion of Manitoba" was created to classify potential development sites using an objective, readily applicable, flexible and accurate source common to this area. It is based on forest inventory data.

From the species of trees present, a number of environmental conditions can be deduced. For example, black spruce is a tree species which tends to be found in more poorly drained sites with a tendency toward acidic soils and nutrient deficiencies. White spruce, however, requires well drained, more aerated sites often found on more stable ground. Therefore,

TABLE 39:

SHORELINE DATA

Shoreline Type	Surface Soil Deposits	Variations in Outcrop	Shoreline Boundary/Slope	Offshore Vegetation	Shoreline Vegetation	Backshore Vegetation
Low Bedrock	- glacial till: fine clay and silt	- smooth, wide quite extensive	- irregular/low slope	- some emergent vegetation	- grasses	- shrub, grade to forest
Low Bedrock Controlled	- shallow surficial deposits	- moderate occurance	- regular/moderate store	- very little	- grasses - shrubs - deciduous forest	- coniferous forest
Bedrock Controlled With over-Burden	- clay at shore-line - till toward backshore	- extensive between beaches	- regular/ moderate slope	- some emergent vegetation	- grasses - shrubs	- coniferous forest
Steep bedrock	- very little surficial soil	- very extensive	- very irregular/ steep slope	- none	- open coni-ferous or deciduous	- coniferous
	- thick silt/ clay deposits	- seldom	- regular/low slope - low backshore relief	- marsh - emergent sedges	- open deciduous	- closed coniferous

SOURCE: "A Resource Allocation Project: Cross Lake"
D. Teillet, Manitoba Department of Mines,
Natural Resources and Environment 1977

TABLE 40:

MORPHOMETRIC DATA OF CROSS LAKE AREA

	Cross Lake	Walker Lake	Drunken Lake	Pipestone Lake
Surficial elevation (ft.)	681.3	679	679	682
Water area (,000 acres)	131.2	28.2	2.7	11.2
Island area (,000 acres)	48.5	11.6	.1	1.6
Outline area (,000 acres)	179.7	34.8	2.8	12.8
Number of islands	714	208	34	35
% area less than 10' deep	70	-	-	-
% area greater than 20' deep	30	-	-	-
Volume (,000 acre-feet)	936	-	-	-
Mean Depth (feet)	7.1	-	-	-
Maximum Depth (feet)	84	-	-	-
Renewal time (days)	6.5	-	-	-

SOURCE: "Resource Allocation Project: Cross Lake" 1977 D. Teillet
Department of Renewable Resources and Transportation System

by identifying the percent coverage of a site by certain tree species, one can gather the relative soil stability and drainage as opposed to another site. In this manner, classification is possible.

The indicator species used are those requiring less than desirable soil conditions, such as black spruce, tamarack, balsam poplar and balsam fir. If any of these occur in a stand at 70% or greater, the stand is classified as category 4, or poor for development. Forty to 60% indicator species represents Class 3 10 to 30% in Class 2 and if no indicator species are present, Class 1.

The forest stand information itself was obtained from the Manitoba Department of Natural Resources and Environment, which is based on maps drawn from aerial photographs. The expert interpretation of these assures a reasonably accurate account of the actual situation.

7.2.2 LAND CAPABILITY

(a) IR 19, IR 19A, IR 19B, IR 19C (Map 11, 12 and 13)

Of the reserve land, #19B has the overall greatest potential with 52% of the forested land being either Class 1 or 2. In comparison, #19 has 28%; #19A has 26% and #19C 77.5% Class 2. In almost every case, the best areas are located along the shoreline, bordering inland lakes, or along tributary outlets into the lake. This is especially true in the #19B and 19C reserve areas. The only Class 2 area in #19A is on the south shore of Class 1 south of the garbage dump. Cross Island itself has no significantly large area of Class 1 or 2 land except on a few eastern extremities of the island where development is currently concentrated.

(b) IR 19D (Map 14)

Indian Reserve #19D at Cross Lake comprised a number of islands to the west of Cross Island. This encompasses an area of some 9,800 acres, of which about 7,300 are forested land. Map 4 shows the approximate location of the Class 1 - 4 areas. Overall, 2% of the land is Class 1, 20% is Class 2 and 20% is Class 3 and the remaining 58% is Class 4. There are no appreciably large areas of Class 2 land except for first large island immeidately west of Cross Island. The remaining Class 1 and 2 stands are very scattered throughout the islands and generally located on shorelines. The overall development potential of 19D then, is very limited. It should also be noted that with Jenpeg control structure and increased fluctuating water levels, much of #19D will be covered with water during peak levels.

7.2.3 TERRAIN ANALYSIS (MAP 15, 16 and 17)

In addition to Mazur's methodology, a standard aerial photographic analysis was undertaken to determine surficial geology conditions. A simple classification was developed to separate bedrock at or near the surface from low lying peat sites and moderately drained deep overburden. For sites which appeared to have capability for development, limited field checking was undertaken.

Throughout all the reserve lands, bedrock and organic soils dominate. Pockets of clay/till are scattered throughout. It is upon the latter where development servicing and foundation construction is most feasible.

7.2.4 LANDSCAPE DEVELOPMENT POTENTIAL (MAP 18, 19 AND 20)

By overlaying the two systems, a clear understanding of landscape capability is possible. This analysis indicates that potential development sites are scattered through the reserve lands. Those areas indicated as having development potential refer to the degree to which such sites can support standard building construction requirements. The higher the development potential, the more capable the site to support such construction.

The final step involved an overlay of Mazur's application and the surficial geology information to determine a ranking of sites. Wherever the two systems overlapped, then, the highest ranking was given to such an area.

(a) IR 19

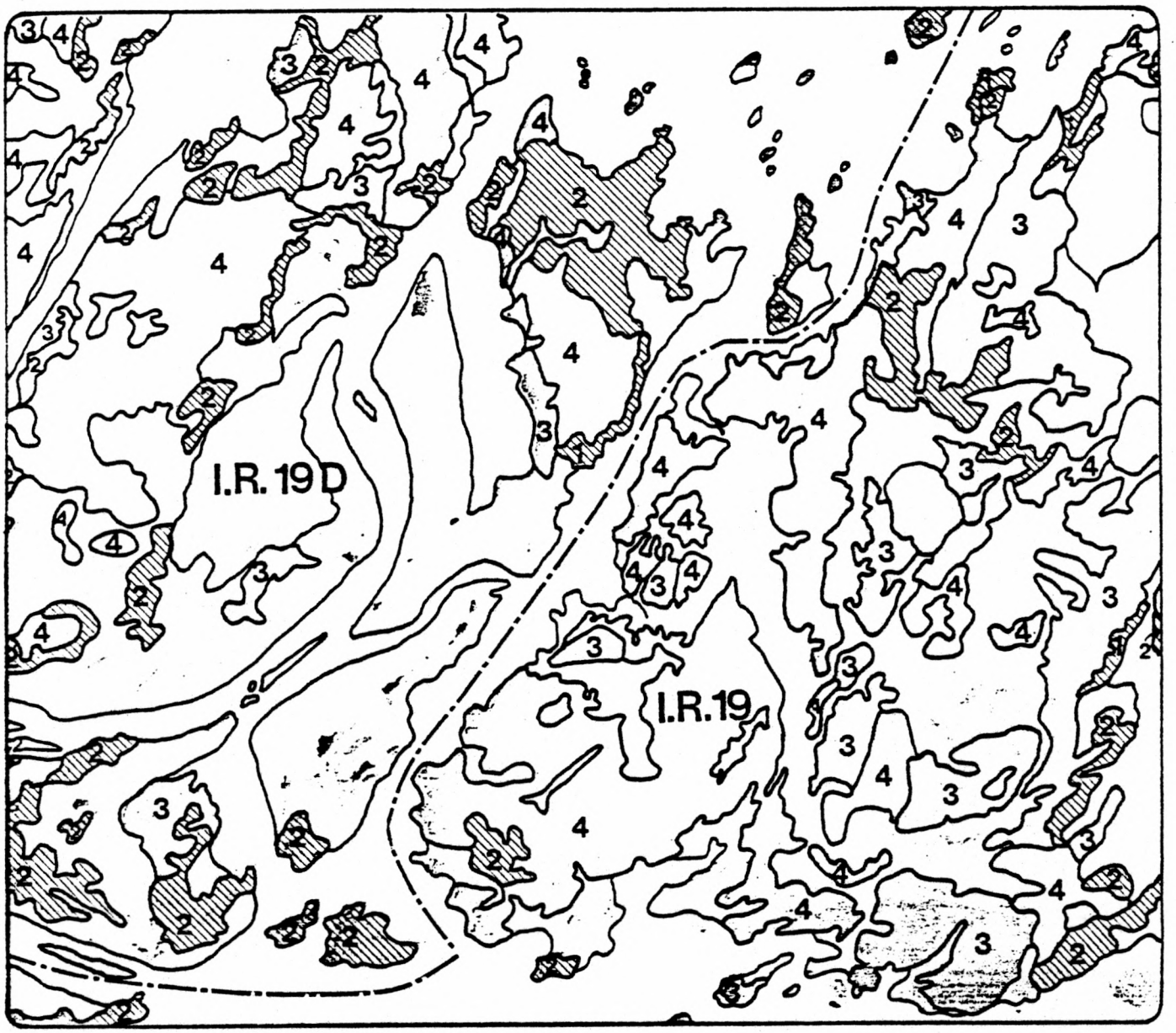
For the most part, IR 19 is suitable for development, particularly in the central and western portions of Ross Island. One substantial area of development potential does exist along the southeast shore of Ross Island. This area is the new proposed school site.

(b) IR 19A

The development potential for IR 19A is largely confined to those areas already developed for housing. Scattered around Albert Lake are pockets of moderately high potential development sites. In addition, a portion of the northern end of 19A appears to have opportunity for further development.

(c) IR 19B and C

South of the existing community, IR 19B and C have been abandoned for habitation purposes for the last 10 years. This is



1 Moderately High
2 Moderate
3 Moderately Low
4 Low

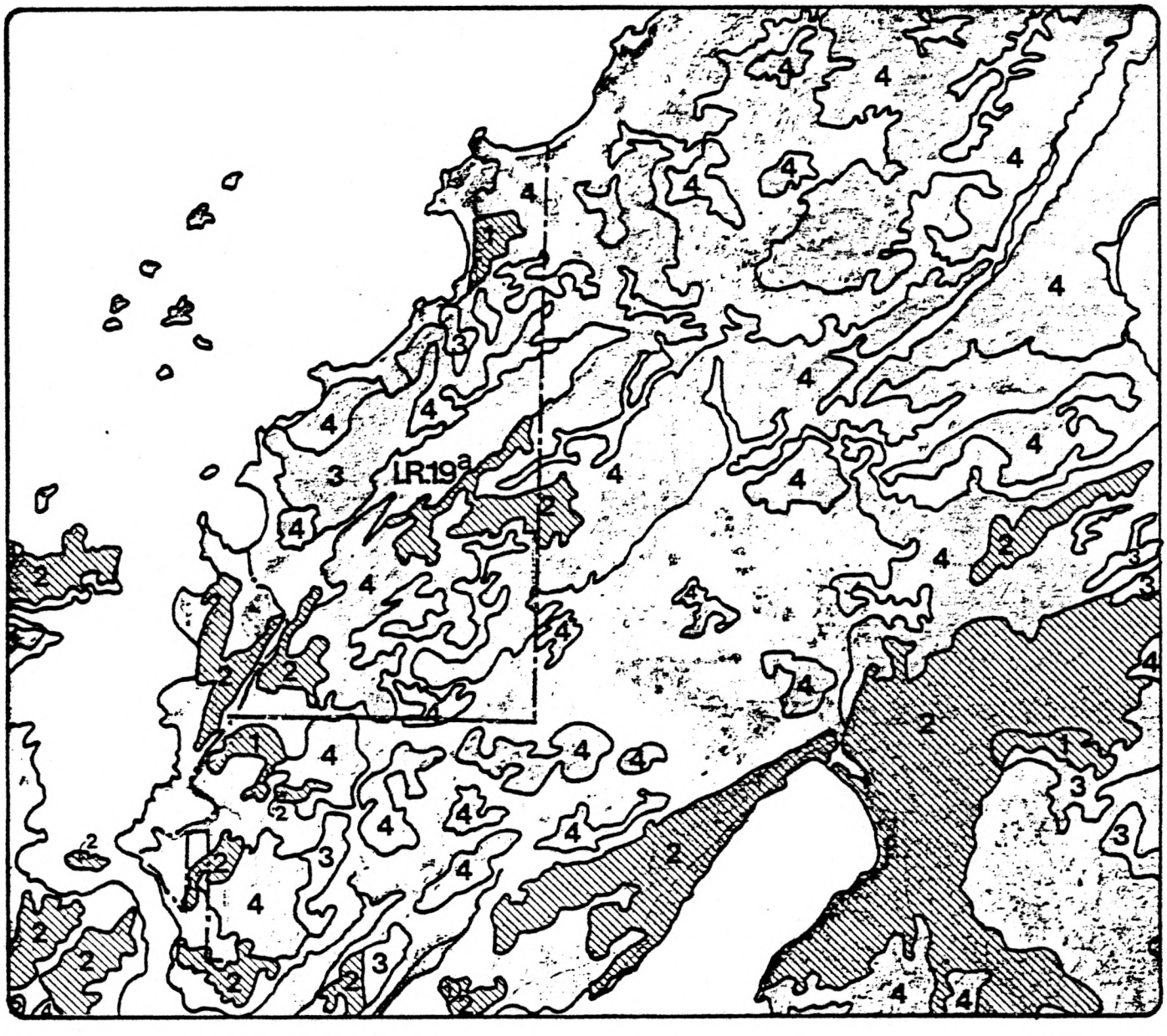
FEET 0 500 1500 2500 3500
METRES 0 200 500 1000

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Fear Witty
& Associates

Land Capability: Undeveloped Areas

Cross Lake Planning Study

11



1 Moderately High
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4 Low

Land Capability: Undeveloped Areas

FEET 0 500 1500 2500 3500
METRES 0 200 500 1000

for the
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& Associates

Cross Lake Planning Study

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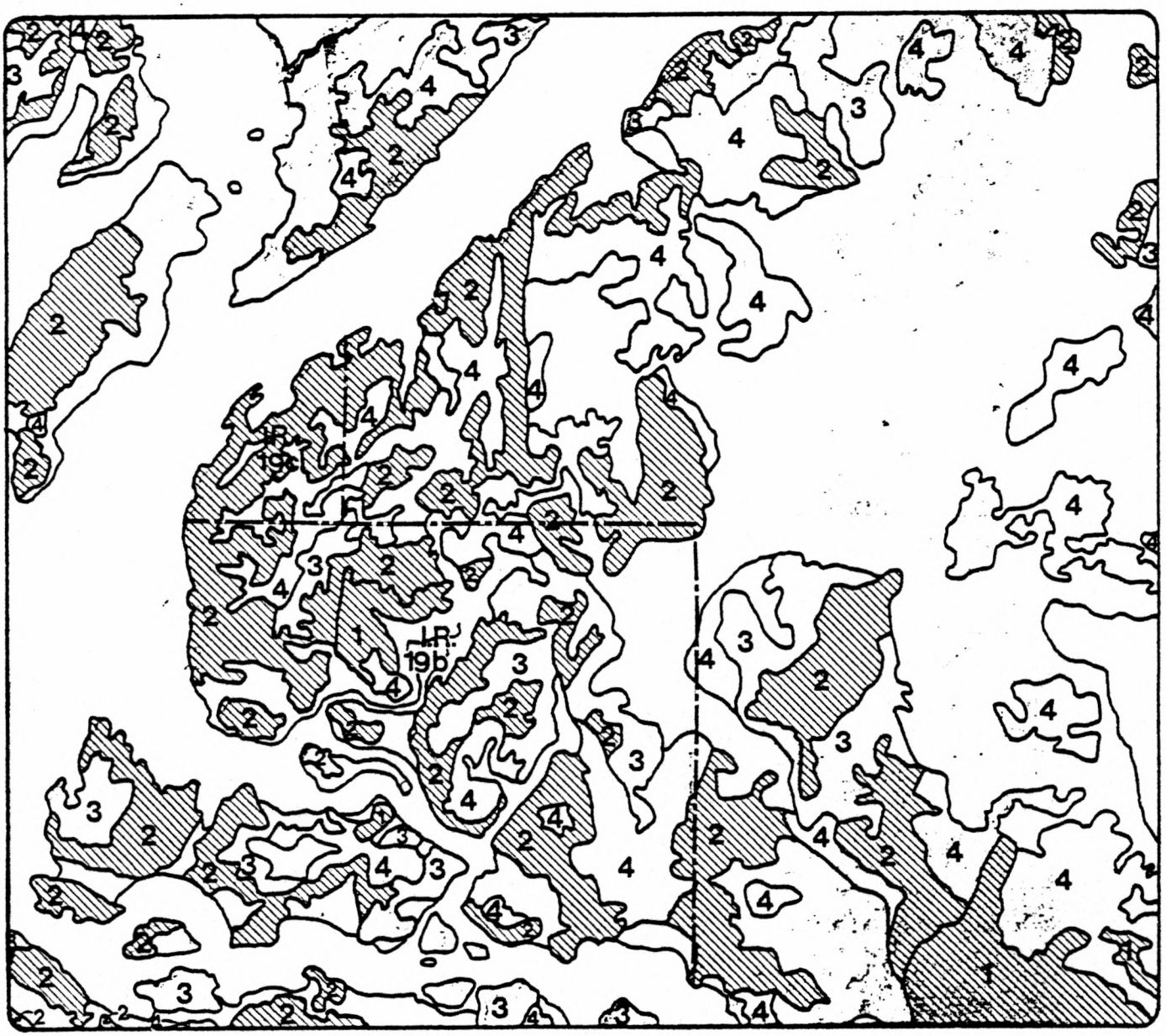

1 Moderately High
2 Moderate
3 Moderately Low
4 Low

Land Capability : Undeveloped Areas

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METRES 0 200 500 1000

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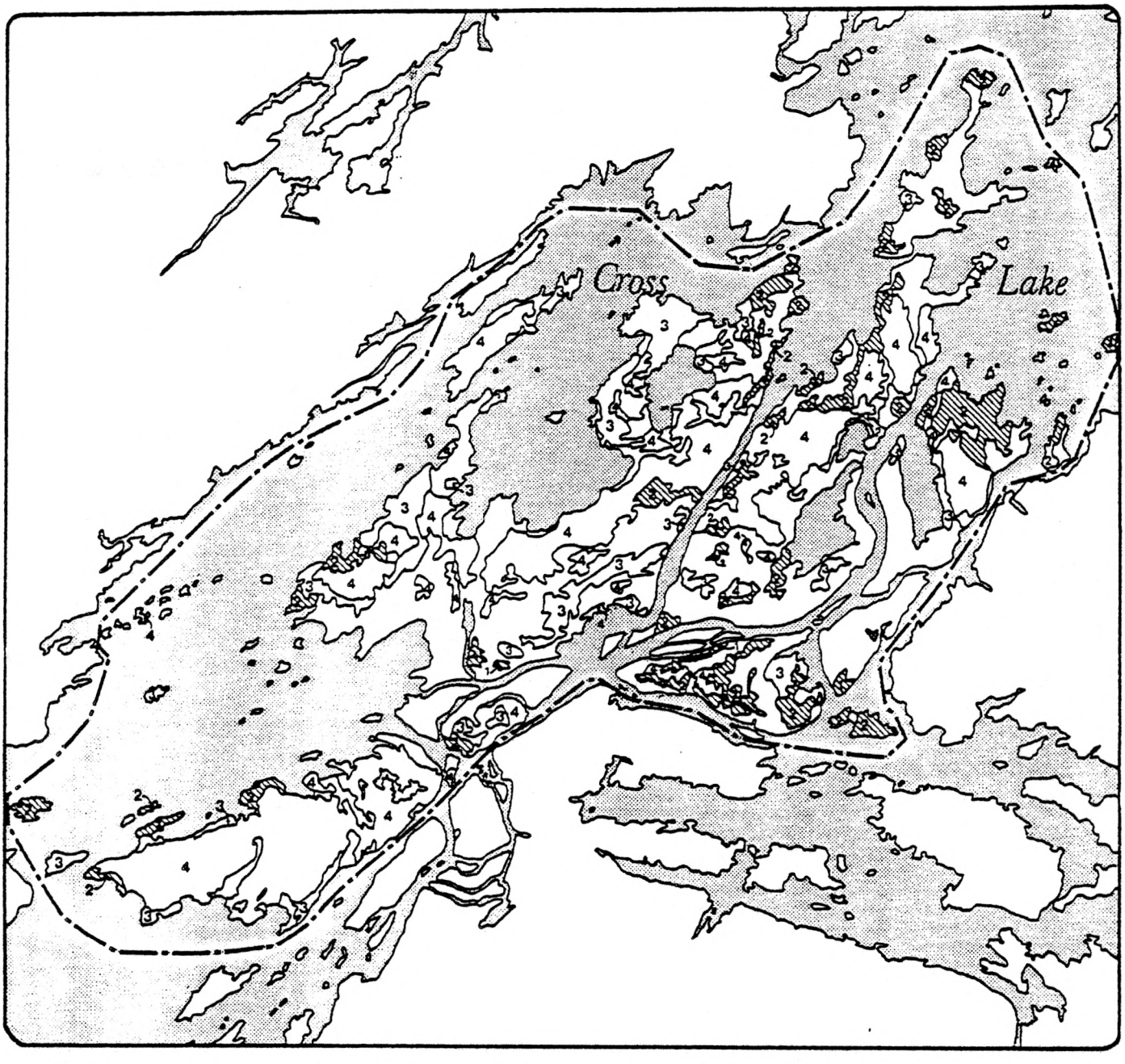

1 Moderately High
2 Moderate
3 Moderately Low
4 Low

FEET 0 100 400
METRES 0 50 100

Land Capability: I.R. 19D

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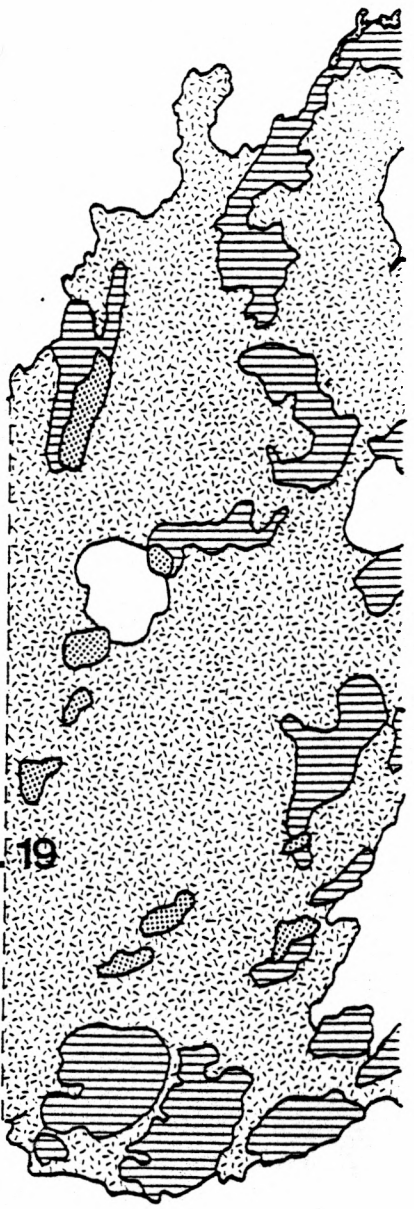


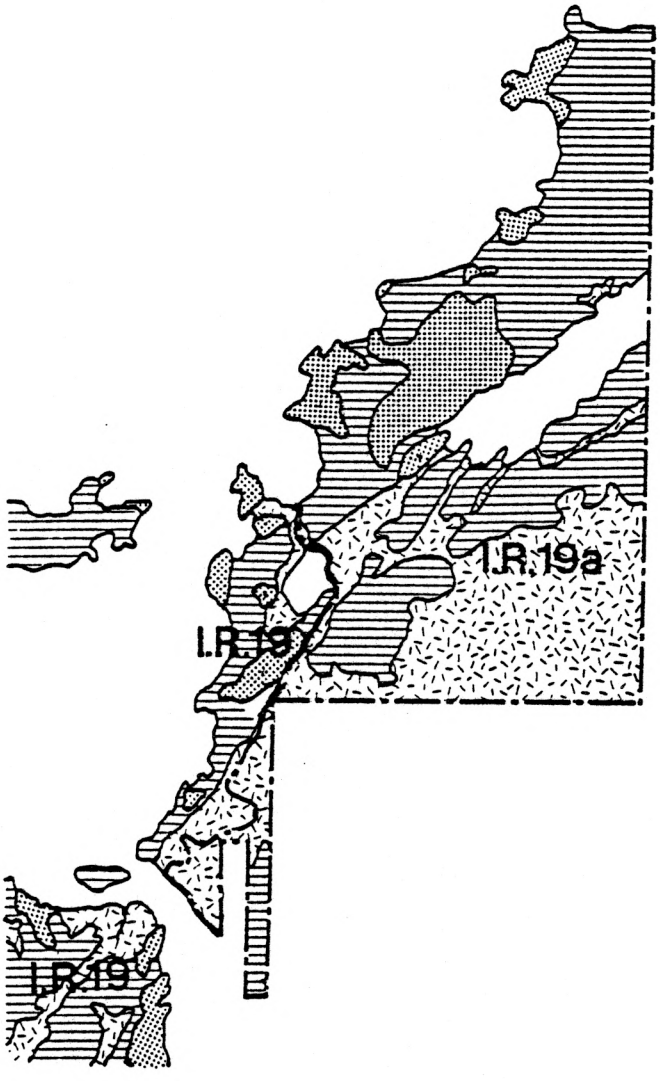
No Stereo Air
Photo Coverage

Bedrock at or near surface

Organic Peat Soils

Clay/Till Overburden (+5' depth)

Terrain Analysis

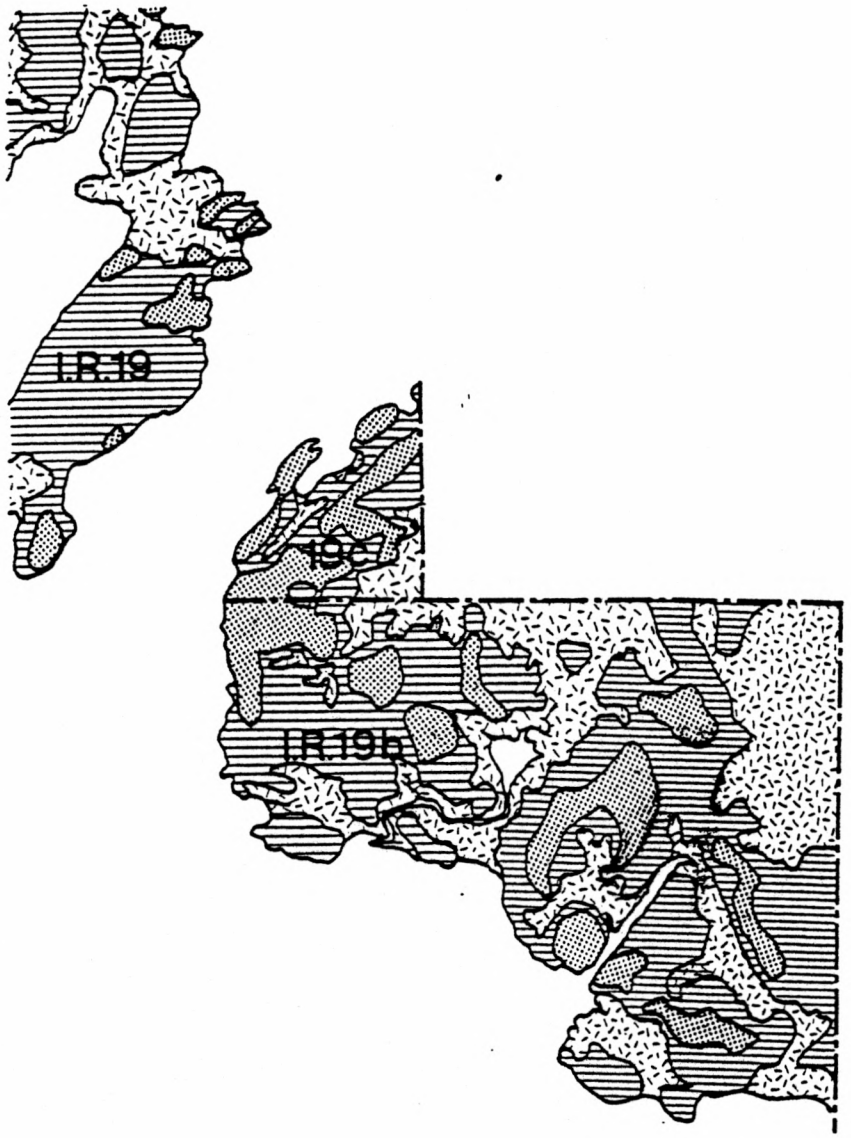


Bedrock at or near surface

Organic Peat Soils

Clay/Till Overburden (+5' depth)

Terrain Analysis

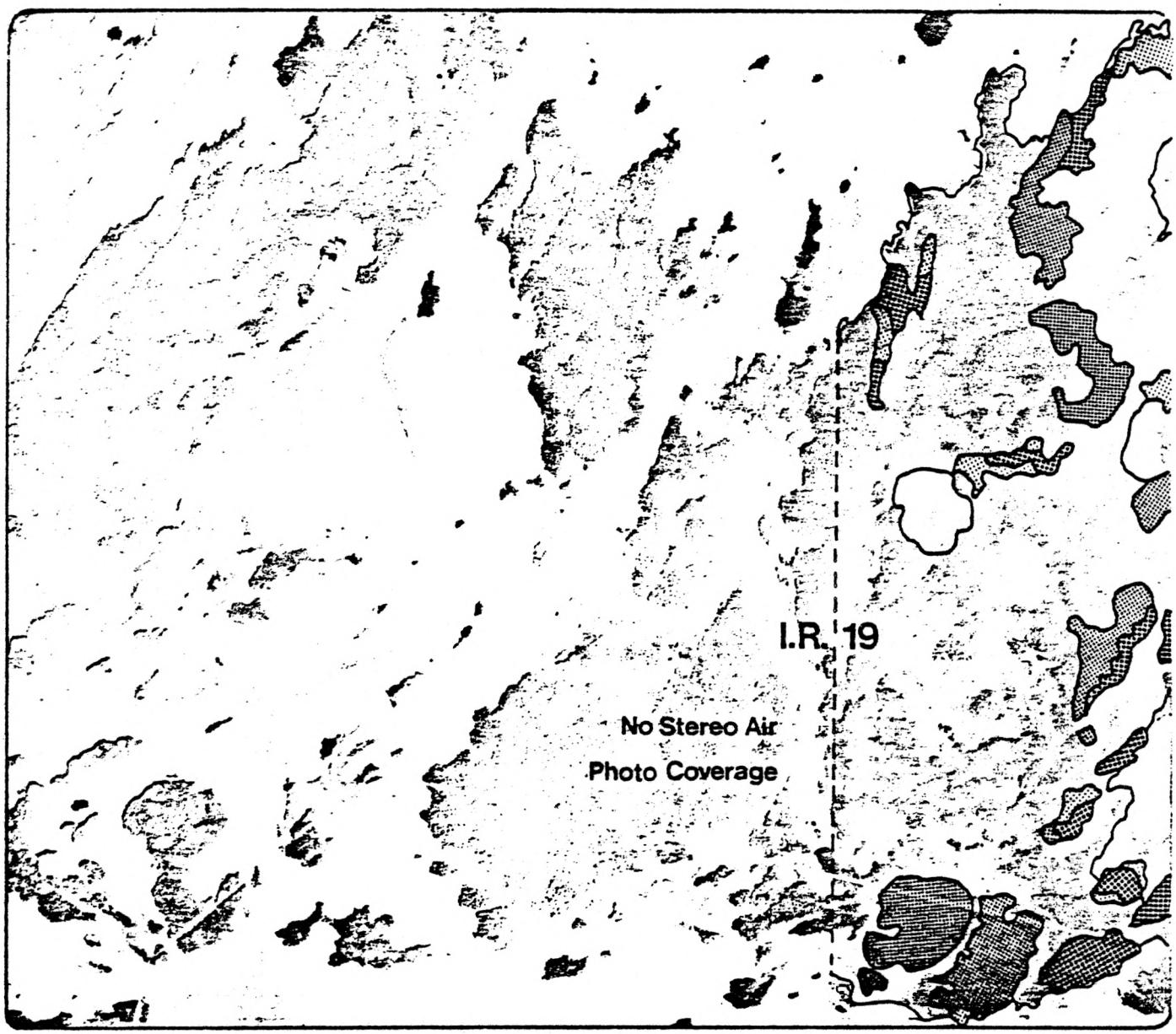


Bedrock at or near surface

Organic Peat Soils

Clay/Till Overburden (+5'depth)

Terrain Analysis



Moderately High

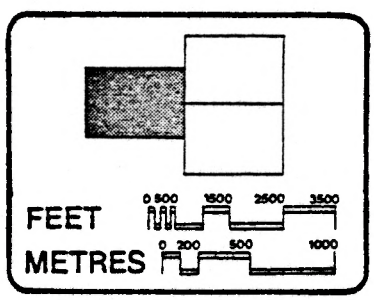
Moderate

Moderately Low

Low

Derived from the Land Capability and Terrain Analysis Mapping

Development Potential



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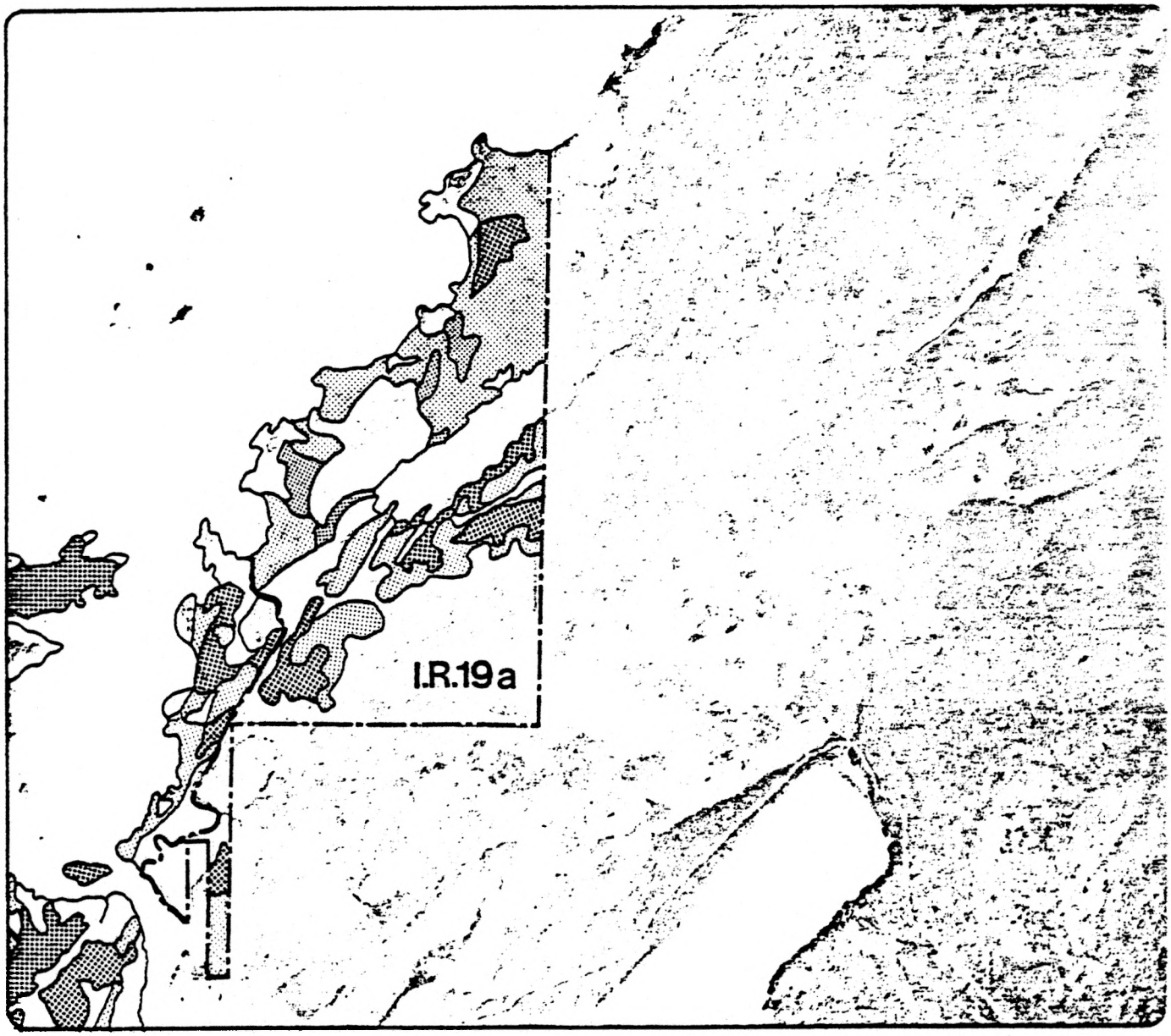

Moderately High
Moderate
Moderately Low
Low

Derived from the Land Capability and Terrain Analysis Mapping

Development Potential

FEET 0 500 1500 2500 3500
METRES 0 200 500 1000

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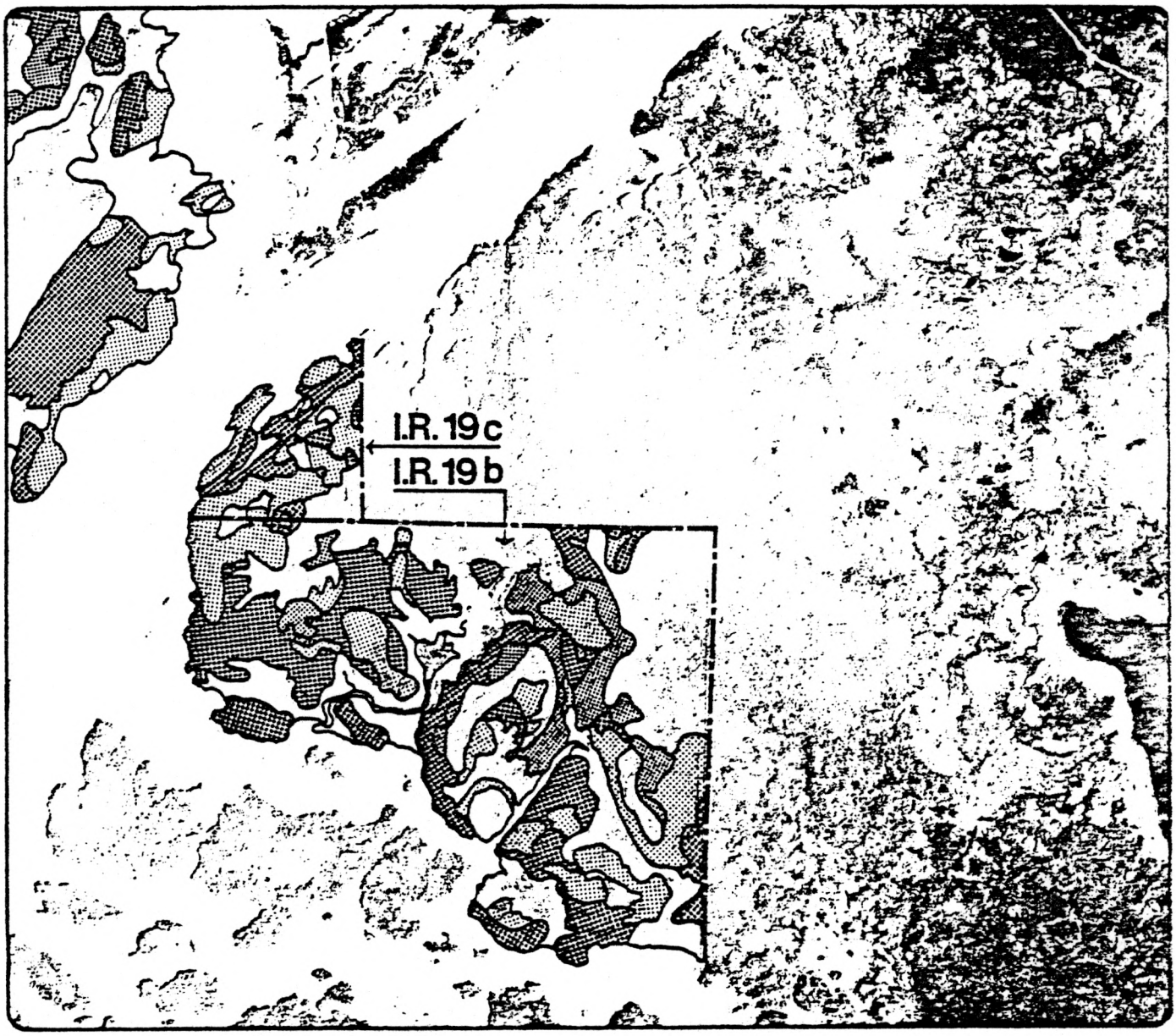

Moderately High
Moderate
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Derived from the Land Capability and Terrain Analysis Mapping

Development Potential

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METRES 0 200 500 1000

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a result of the provision of services only on portions of IR 19 and IR 19A. Yet, both IR 19B and C appear to offer opportunity for development. Although bedrock is scattered throughout both reserves, there does exist enough ground cover to support future development.

Recommendations

- that future serviced development be concentrated upon potential development lands while retaining bedrock and lowland for extensive/open space uses.
- that IR 19B and 19C be viewed as the major development potential focal points

Conclusions

- that the terrain of the Cross Lake reserves is typical of the northern boreal forest region
- that the potential sites for development tend to be scattered throughout the reserves, particularly along water courses
- that bedrock protrusions and lowland/ muskeg are the primarily limiting factors for development

8. *Resource Utilization*

There exists 4 major resource extraction components. These are: forestry, commercial fishing, trapping and mining. The latter is a new potential opportunity.

8.1 FORESTRY

The Cross Lake community falls within forest management unit #83. This takes in an area south to Playgreen Lake, west to Hill Lake, north past Wabowden (excluding Sipiwesk) and east to include Pipestone Lake. The total net merchantable volume within this unit is roughly 5.1 million cubic feet of coniferous wood and 1.2 million cubic feet of deciduous.

On a scale closer to the reserve, the Department of Mines, Natural Resources and Environment in 1975 looked at a 25 mile radius area out of Cross Lake and identified some 145,000 acres of mature stands, of which a total of 69,600 cords is the maximum allowable cut. Not all of this is immediately accessible. Map 21 - 24 show the mature forest stands upon and in close proximity ot the reserves. The areas of mature stands with white spruce near the reserve are: southern portion of IR #19B (including an island south of this and an area directly east of the reserve boundary); along the shoreline of IR #19A; and a number of islands in #19D (especially directly beside Cross Island).

Pimichikamac logging operation

In an attempt to better define the potential of surrouding Crown Land to support a local timber operation for construction material purposes, townships in close proximity to the community with known high merchantible potential were examined. A computer run was made through the Forest Inventory service of the Department of Mines and Natural Resources. This special run provided the volume in units for merchantible stands within Twp. 63 Rge 2 and 3, Twp 64 Rge 1 to 4, Twp 65 Rge 1 to 4 and Twp 66 Rge 1 to 4 (Table 41 and Map 25 and 26).

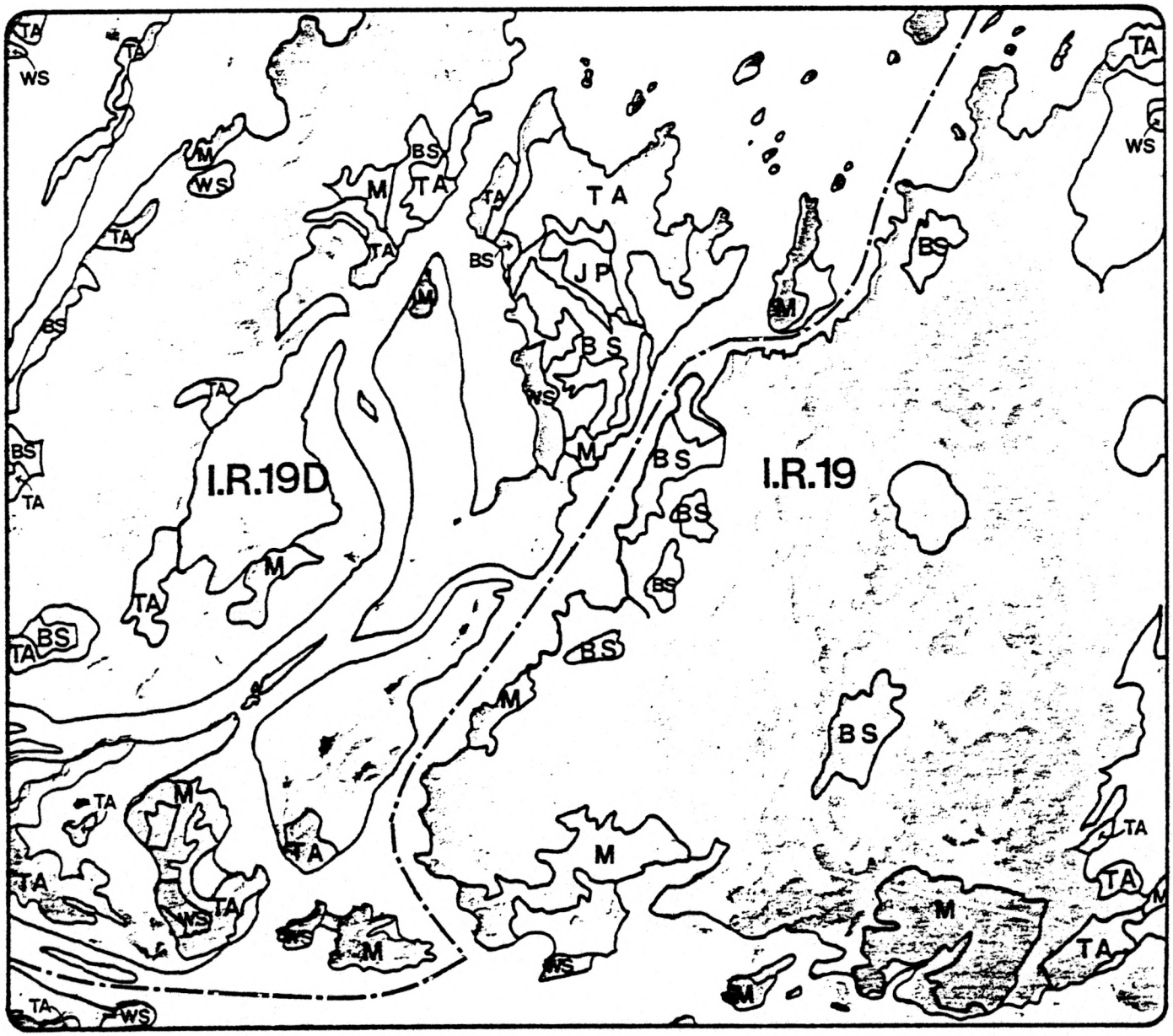
Out of a total possible acreage of 322,560 acres (including land and water), 118,329 acres are merchantible stands of timber. The largest volume by specie is black spruce at 822,869 units. The remaining species in order of volume are trembling aspen (312,380 units), jack pine (195,808 units) white spruce (183,105 units) and balsam fir (30,463 units). White birch was not calculated. All of the five calculated species are suitable for construction material, as well as a log lathe system of wood production. Twp 63 Rge 2 and Twp 64 Rge 4 have particularly high potential for timber production. Manitoba Forestry Company (Manfor) of the Pas has two cutting areas northwest of Cross Lake in the Muhigan Falls area and farther east, south of the Little Manitou Rapids area. At present, there have been 3 areas cut over by the Cross Lake Band, 2 in the Sand Bay region and the other being a group of small islands between Ross Island and Cross Island (Map 27). In addition, Norway House and Cross Lake Bands have cut timber on a large island in the north end of Pipestone Lake (Twp 64 Rge 2).

The Cross Lake Loggers or "Pimichikamac" have been in operation for three years. The Company produces construction material and mine shaff beams for INCO in Thompson. Eighteen individuals are on Pimichikamac's payroll. Of this number, 4 cutters are from outside the community. Future cutting areas out of Cross Lake may be connected with the proposed log lathe operation and construction needs.

8.2 COMMERCIAL FISHING

8.2.1 UTILIZATION

In general, Cross Lake has a small commercial fishing utilization area compared to other communities. As a result, there is little room for future expansion into other lakes. Of the four lakes commercially fished (Cross Lake; Walker Lake; Drunken Lake and Pipestone Lake), Cross Lake itself is the major fishing area within the immediate district (Map 28). The major catches at Cross Lake are whitefish



Mature Stands:
- WS > 60% White Spruce
- BS > 60% Black Spruce
- TA > 60% Trembling Aspen
- JP > 60% Jack Pine
- M Mixed

FEET 0 500 1500 2500 3500
METRES 0 200 500 1000

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Forestry Potential

Cross Lake Planning Study

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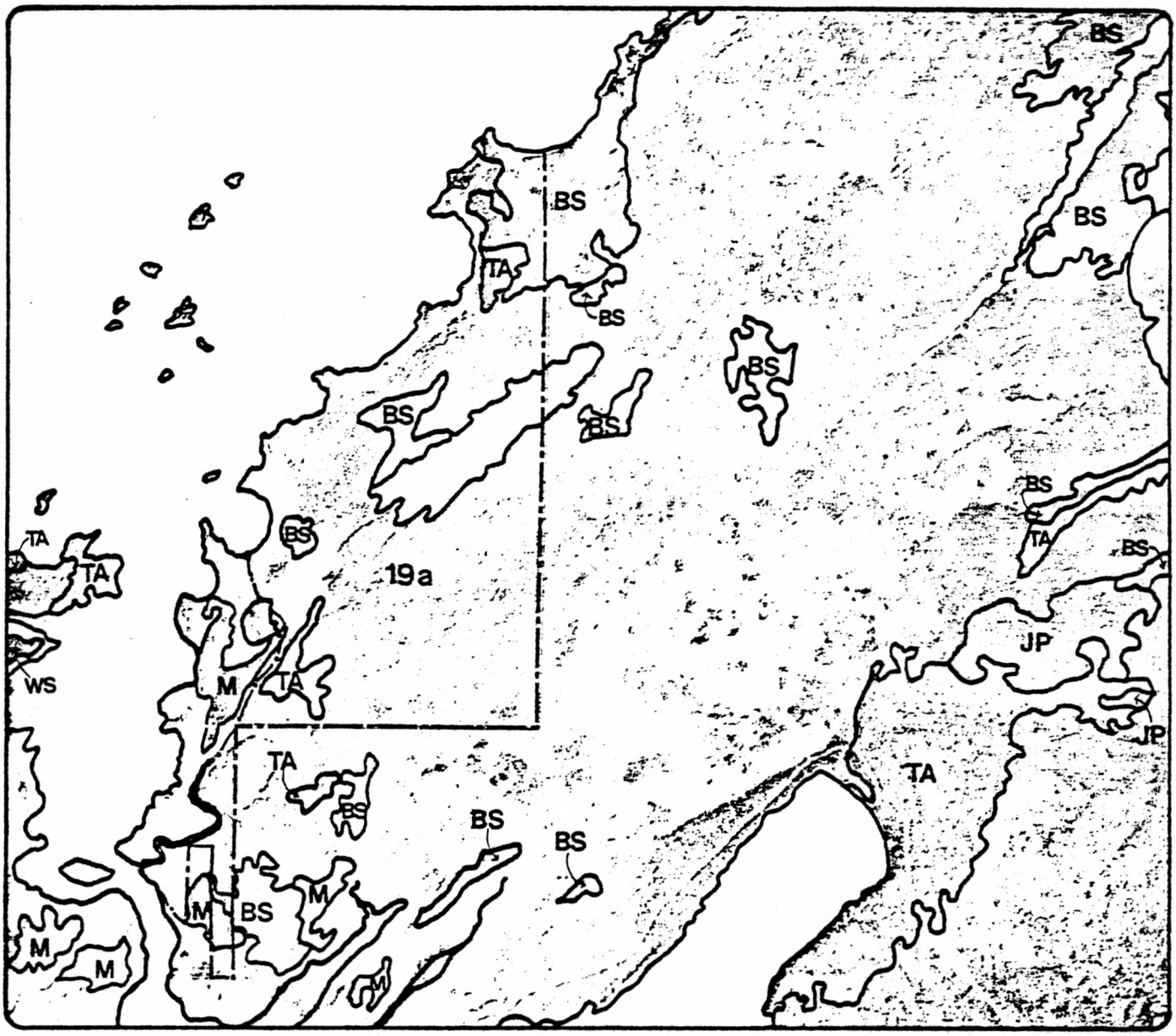

Mature Stands:

WS	> 60%	White Spruce
BS	> 60%	Black Spruce
TA	> 60%	Trembling Aspen
JP	> 60%	Jack Pine
M		Mixed

Forestry Potential

FEET 0 500 1500 2500 3500

METRES 0 200 500 1000

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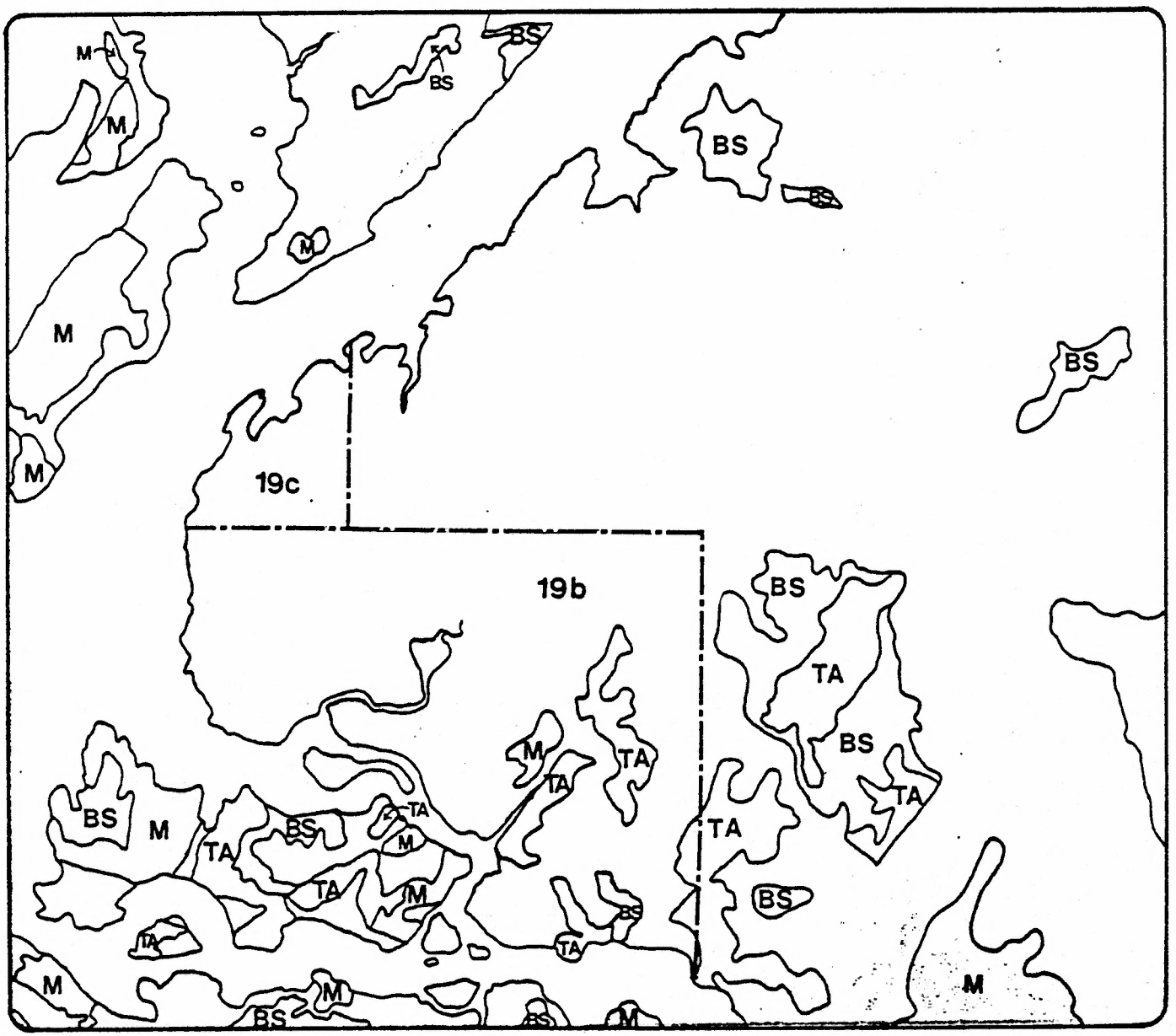

Mature Stands:

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BS	> 60%	Black Spruce
TA	> 60%	Trembling Aspen
JP	> 60%	Jack Pine
M		Mixed

Forestry Potential

FEET 0 500 1500 2500 3500

METRES 0 200 500 1000

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and pickerel. An upswing seems to be occurring again in the fish harvest judging by the summer 1979 total Cross Lake yield of 87,900 lbs. There were 18 full time fishermen employed out of Cross Lake in 1978/79. Only 9 of these contributed to the summer 1979 harvest figure mentioned earlier, and therefore caught roughly 9,700 lbs./operator, or approximately $5,200.

Commercial Fishing at Cross Lake has 2 noteworthy deviations from the "norm" over the last few years (Tables 42 and 43). The first apparent change is a large increase in the 1977/78 season in both harvest per operator and annual income per operator, while the second is a not quite so drastic decrease in both areas in the 1978/79 season.

Comparing seasonal summer statistics only (as only the summer season was fished from 1974 to 1978), the average annual total harvest from 1974/79 was 7,300 lbs./operator yielding an average annual income of roughly $3,200/operator.

In the summer of 1977, the total lake harvest for Cross Lake was similar to the average yield of previous seasons but, since only 6 operators were active, the yield and income per fisherman was substantially higher. Therefore, the income jump from $4,000 to $10,000/operator from the summer of 1976 to the summer of 1977 was due largely to the increased harvest per operator from 7,000 lbs. to 21,000 lbs. in the same time period.

The 1978/79 season conversely, experienced a decrease in summer harvests and income to be compensated for by winter fishing. The 16 operators for the summer of 1978 harvested roughly 4,000 lbs. each for an income of only $2,500 while the 1 winter operator earned roughly $6,000 for his harvest of 10,000 lbs. The decrease during the summer was largely in the whitefish catch (Table 44). This amounted to half the usual harvest. It is the contention of the Cross Lake Commercial Fishermen's Association that the reduction in recent summer catches is a result of Lake Winnipeg Regulation affecting Cross Lake levels.

At the time of writing (June 1980), the commercial fishing operation out of Cross Lake has been temporarily halted due to the excessive low water levels on Cross Lake. Since the June pickerel fishery is an important financing component to the remainder of the commercial fishing season, the impact of the inability of the Cross Lake commercial fishermen to begin operations will likely be a serious setback for the local economy.*

*This latest major but unevaluated impact is a further example of the need to undertake a separate and comprehensive impact assessment for Cross Lake.

Walker is the second most consistently fished lake with average yields from 1973-1977 being 26,000 lbs. total for the summer season. A high value of 54,000 lbs. for the summer of 1974 is contrasted by a significant decrease in the 1975 yield of 7,000 lbs. The winter of 1977/78 was particularly productive as opposed to prior winter harvests, with a 76% increase in northern pike. Walker was again fished in the summer 1979 season yielding 21,000 lbs.

Drunken Lake has been fished periodically by 1 fisherman with the winter 1974/75 season and 1975/76 yielding 8 to 10,000 lbs. respectively. Pipestone Lake was not fished from the summer of 1976 while the summer of 1979 provided a relatively stable yield at an average of 42,000 lbs.

Of concern to the local commercial fisherman is the large price difference found between fish caught (i.e. 23¢/lb. for jack fish) and final retail price (i.e. $1.69 for jack fish). At a meeting on January 234d, 1980, the Cross Lake fishermen raised this fundamental question.

In summary, an overall decline in fishing since the summer of 1978 has been changed by relatively stable harvests in all the lakes examine in the summer of 1979. Commercial fishing at Cross Lake has been and should remain an important economic factor contributing to the Cross Lake Community.

8.2.2 MANAGEMENT

The Manitoba Department of Natural Resources manages the commercial fish resources of the lakes. The quotas set for the lakes are determined and managed by this Department (Table 45). For the most part, the present commercial fishing operation based at Cross Lake appears to be at capacity.

At a meeting on January 23rd, 1980, the Cross Lake Commercial Fisherman's Association met with Provincial Resource Specialists to review a new proposed unilateral commercial fish management program. The proposal was intended to change the fundamental basis for the licensing of commercial fishermen and the application of royalties. At this meeting, Provincial Officials also indicated that Cross Lake was a special situation due to Manitoba Hydro. Further, they indicated "that Cross Lake was a well managed fishery."

The essence of the proposal changes to the licensing system was based upon the ability to transfer leases from one fisherman to another or to a company, resident or possibly non-resident. Each lease was to have a fish quota assigned to it. If quotas were not met, then the lease could be lost.

The Cross Lake Commercial Fishermen's Association opposed the management program. As a result of other community reaction, the

TABLE 41:

POTENTIAL MERCHANTIBLE TIMBER

Location	Area of Merchantible Stand (in acres)	Volume in Cunits*				
		JP	BS	WS	BF	TA
Twp. 63 Rge 2	13,252.0	50,411	52,809	6,987	1,081	39,952
Twp. 63 Rge 3	8,881.0	21,051	58,628	3,669	315	9,646
Twp. 64 Rge 1	9,968.0	24,822	54,460	9,511	846	15,224
Twp. 64 Rge 2	8,700.0	11,111	60,997	15,846	2,204	34,491
Twp. 64 Rge 3	10,504.0	13,104	72,431	27,794	4,358	37,313
Twp. 64 Rge 4	12,383.0	18,733	105,467	20,919	2,765	50,630
Twp. 65 Rge 1	11,620.0	14,922	93,749	10,242	862	14,804
Twp. 65 Rge 2	8,797.0	15,967	65,479	8,071	1,434	20,522
Twp. 65 Rge 3	6,185.0	4,885	38,385	19,571	4,638	27,696
Twp. 65 Rge 4	5,066.0	4,687	39,240	18,504	3,142	17,114
Twp. 66 Rge 1	6,329.0	3,870	57,388	14,295	2,620	14,783
Twp. 66 Rge 2	7,676.0	3,568	71,859	13,381	3,803	12,806
Twp. 66 Rge 3	3,774.0	2,701	26,770	11,817	2,287	10,297
Twp. 66 Rge 4	5,194.0	5,976	25,207	2,498	108	7,102
TOTAL	118,329.0	195,808	822,869	183,105	30,465	312,380

*One Cunit equals 100 cubic feet of timber

TABLE 42:

COMMERCIAL FISH HARVESTS IN THE CROSS LAKE AREA

Year and Season	Cross Lake Total Harvest	Cross Lake No. of Operators	Cross Lake lbs./ Operator	Pipestone Lake Total Harvest	Pipestone Lake No. of Operators	Pipestone Lake lbs./ Operator	Walker Lake Total Harvest	Walker Lake No. of Operators	Walker Lake lbs./ Operator	Orunken Lake Total Harvest	Orunken Lake No. of Operators	Orunken Lake lbs./ Operator
S74	92,905	13	7,147				54,659	9	6,073			
W74/75				14,346	3	4,782				32,154	1	32,154
S75	135,442	17	7,967	49,646	6	8,274	6,985	9	776	3,539	1	3,539
W75/76							521	1	521	38,731	1	38,731
S76	103,068	15	6,871	41,573	4	10,393	25,837	12	2,153			
W76/77							3,926	1	3,926	16,649	1	16,649
S77	124,892	6	20,815				21,402	3	7,134			
W77/78												
S78	60,405	16	3,775									
W78/79	10,439	1	10,439									
Aug./79	87,859		9,502	35,188		7,816	21,087		4,573	22,768		22,768

SOURCES: Freshwater Fish Marketing Corporation
Manitoba Oepartment of Natural Resources

TABLE 43:

VALUE OF COMMERCIAL FISHERY ($) IN CROSS LAKE

Season & Year	Cross Lake Total Lake Value	Cross Lake Average Income Per Operator	Pipestone Lake Total Lake Value	Pipestone Lake Average Income Per Operator	Walker Lake Total Lake Value	Walker Lake Average Income Per Operator	Orunken Lake Total Lake Value	Orunken Lake Average Income Per Operator
S74	36,636	2,818			20,251	2,250		
W74/75			4,587	1,529			8,190	8,190
S75	53,005	3,118	18,918	3,153	2,510	279	1,473	1,473
W75/76					100	100	10,115	10,115
S76	56,510	3,767	17,133	4,283	11,616	968		
W76/77					917	917	4,120	4,120
S77	61,483	10,247			8,184	2,728		
W77/78					9,038	3,013		
S78	39,168	2,448						
W78/79	5,725	5,725						

TABLE 44:

FISH HARVEST (ACTUAL LBS.) BY SPECIES IN CROSS LAKE AREA

	White	Pickerel	Perch	Jubilee	N. Pike	Goldeye	Other
Cross Lake	72,898						
S74	72,898	20,007					
S75	114,329	21,113					
S76	75,993	26,956	119				
S77	102,047	22,256	32		354		3
S78	36,136	24,171	4			94	
W78/79	5,919	1,182		1,241	2,097		
Orunken Lake							
W74/75	932	6,726	502	11,924	12,064	6	
S75	312	2,582	131		464		50
W75/76	569	7,692	285	14,058	16,059	68	
W76/77	2,902		55	6,326	7,366		
Pipestone Lake							
W74/75	1,404	4,116	68	1,177	7,580	1	
S75	31,417	13,947	6	1,133	3,046	94	3
S76	29,512	4,055	11	4,922	2,893	144	36
Walker Lake							
S74	27,644	27,015					
S75	3,858	2,873			254		
W75/76					521		
S76	16,498	9,339					
W76/77	404	464	1		3,057		
S77	11,404	5,264	1		4,733		
W77/78	9,358	3,570	83	91	21,174		2

TABLE 45:

CROSS LAKE FISHING QUOTAS

	1974	1975	1976	1977	1978	1979
Cross Lake	100,000	130,000	100,000	130,000	100,000	100,000
Pipestone	30,000	30,000	30,000	30,000	30,000	30,000
Walker	85,000	85,000	85,000	85,000	85,000	85,000
Orunken	10,000	10,000	10,000	10,000	10,000	10,000

- species of quota for

Cross Lake: pickerel, white, goldeye, jack
Pipestone Lake: pickerel, white, goldeye,
Walker Lake: pickerel, white
Orunken Lake: pickerel, white

entire proposal was withdrawn by the Minister of Natural Resources. Further, the local association opposed the idea of a Manitoba Association of Commercial Fishermen, fearing the loss of control of decision-making. The local Association expressed its opinion that the Cross Lake commercial fishing boundary should be extended to compensate for the loss of up to one quarter the previous commercial fish area due to encroachment by Manitoba Hydro.

8.3 TRAPPING

Cross Lake Trapline Section (RTL) #22 (Map 29) is composed of 63 trapping blocks. The number of trappers has risen from 119 in 1973 to 162 in the 1978/79 season, with a slight decrease occuring in 1977/78. Tables 46 and 47 give a complete list of species caught and their average fur value. The dominant species harvested are beaver, muskrat and mink yielding roughly $14,000, $12,000 and $9,000/year respectively. The pelts with the highest fur value, however, are lynx, fisher and otter (Table 48). Out of a total of 62 trapping blocks, only 4 appeared to be untrapped during the period 1969 to 1974.

The prices of each of these have increased over 100% following a low crop year in 1974/75 (at which time construction began in the Jenpeg area).

In 1976/77 the harvests of all species increased significantly with the exception of muskrat and weasel. This increase continued in 1977/78 with lynx being a good example, having gone from 11 pelts to 162 worth $2,800 to $51,400 from 1975/76 to 1977/78. In effect, where the lynx once accounted for 5% of the total economic value of the Cross Lake fur trade, it increased to 41% by 1977/78.

Of the employment force at Cross Lake, 31% are trappers with this figure also accounting for 44.5% of all those seasonally employed. The average income/trapper in 1977/78 was about $800/year. This compares just slightly below the regional average of $1,160/trapper per year (Table 47).

Cross Lake provided about 4% of the total regional harvest and 5% of the economic value in 1977/78. Trapping has in the past, and will no doubt in the future, remain an important economic factor in the Cross Lake community.

8.4 OOMESTIC UTILIZATION

There are three major uses made of the resource base for domestic consumption. These are wood for heating and cooking, fish for domestic food supplement and wild game for domestic food consumption. Firewood is cut locally upon the reserves for use in the community. Since the majority of houses use electricity for cooking and oil for heating, domestic wood cutting is not a major activity.

Domestic fishing is thought to account for 138,000 lbs. in 1976 (Teillet). At 1980 food costs of an average of $3.00 per pound for equivalent substitutes, this domestic fishery is worth about $414,000 to the local economy. The majority of species caught are whitefish and pickerel. Oomestic game consumption is of unknown local importance. Within the community, however, there is little evidence of reliance upon local game for food purposes.

8.5 MINING

8.5.1 MINERALS

Mineral claims and mining have played a minor role at Cross Lake in the past. There were only 9 mineral claims in the Cross Lake area, all of which have been cancelled. These were located on 2 islands south of Indian Reserve #19B and immediately north of Ross Island (Map 30). The only other claims lie to the southeast of Cross Lake in the Echimamish/ Carrot River area or to the north in the Monty Lake/Leech Lake area.

The Indian Reserve, including #19O has been withdrawn from staking. The only actual mining in the area was done by Bowden Nickel out of 3 areas around Wabowden, which is located 40 miled north of Cross Lake. Operations closed there in 1977.

(a) General Area

A study done in 1972 called "The Undiscovered Mineral Endowment of the Canadian Shield in Manitoba" gathered estimates of reserves throughout the shield area of Manitoba using questionnaires. Local authorities on mineralogy estimated potential mineral resources from which the following table has been drawn up (Table 49). Thsse estimated mineralized deposits are located on Map 31.

The largest potential reserves in the Cross Lake area are nickel and copper with anyqhere between 400,000 to 900,000 tons of the former and 200,000 to 400,000 tons of the latter. Molybedenum potential comprises about 3 to 6% of the total study area but amounts to only 35,000 to 75,000 tons. The place value of copper and nickel deposits within the Reserve itself ranges around $300 million and $200 respectively and gold deposits have been estimated at $10 to $25 million. Such place values do not take into account cost of exploration, development, mining or processing. As a result, many of these deposits are totally uneconomic.

Oespite the promising value of minerals in the area, the overall potential of the entire RTL is still largely unknown. A more promising area is the "Nickel Belt" to the northwest of Cross Lake. Given lack of current information, the economic feasibility of mineral develop-

Mature Stand:
- WS > 60% White Spruce
- BS > 60% Black Spruce
- TA > 60% Trembling Aspen
- JP > 60% Jack Pine
- M Mixed

FEET 0 100 400
METRES 0 50 100

Forestry Potential: I.R.19D

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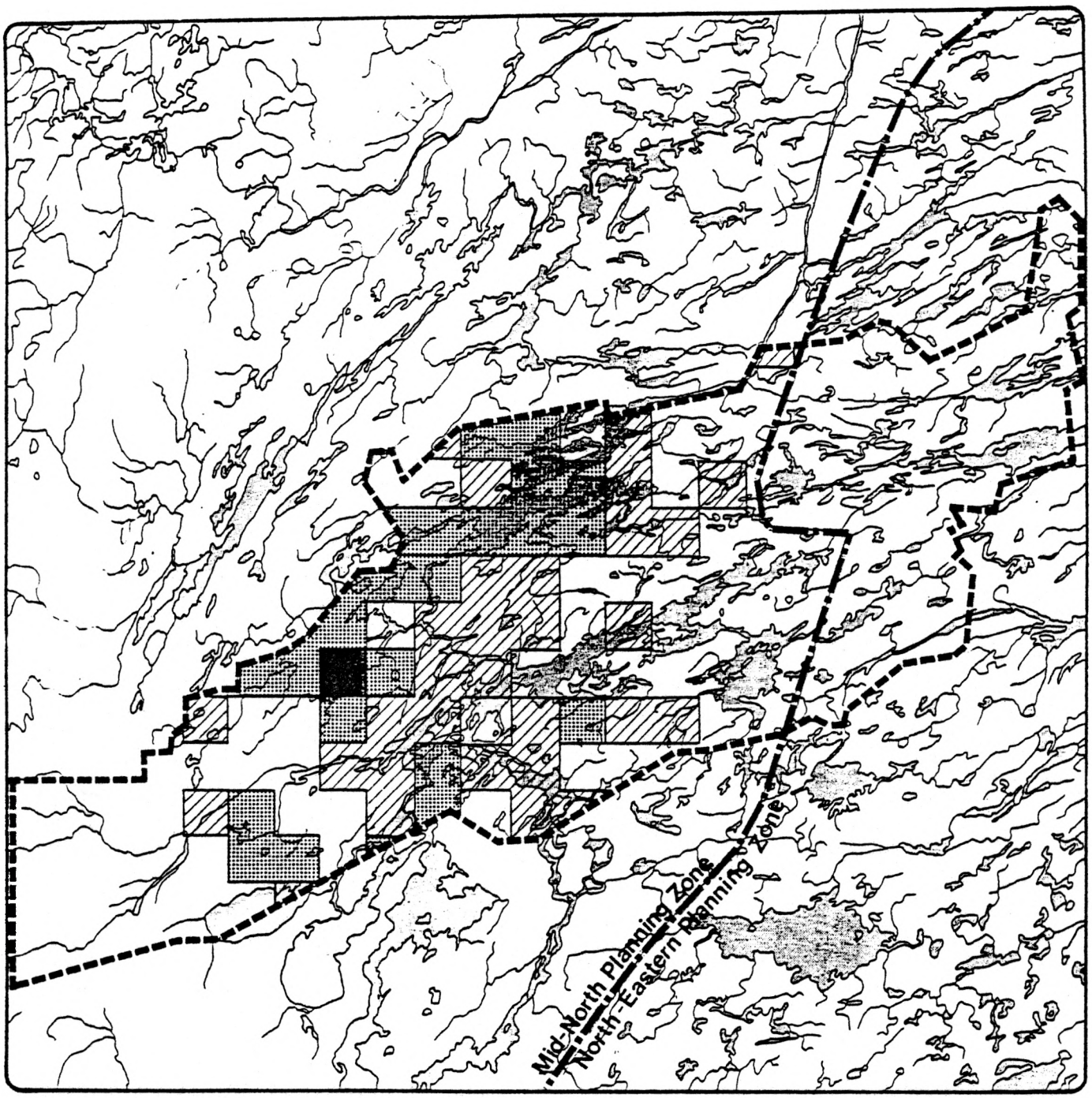

> 8000 acres per township
4000 - 8000
2000 - 4000
< 2000

Forestry: Mature Stands

MILES 0 5 10 15 20
KILOMETRES 0 5 10 15 20

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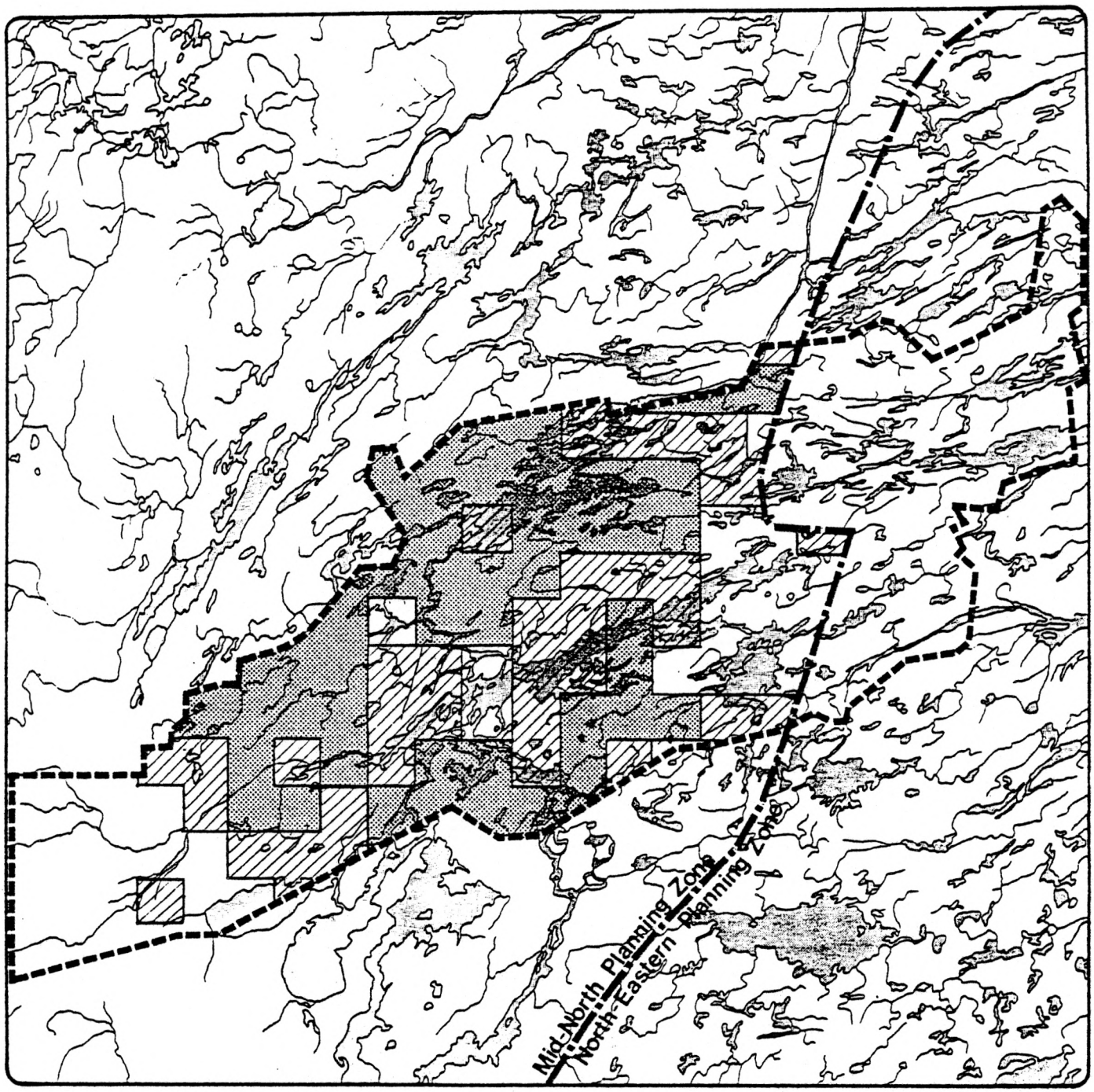

8000-15,000 acres per township
4000-8000
< 4000

MILES 0 5 10 15 20
KILOMETRES 0 5 10 15 20

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Fair Willy
& Associates

Forestry: Merchantable Stands

Cross Lake Planning Study

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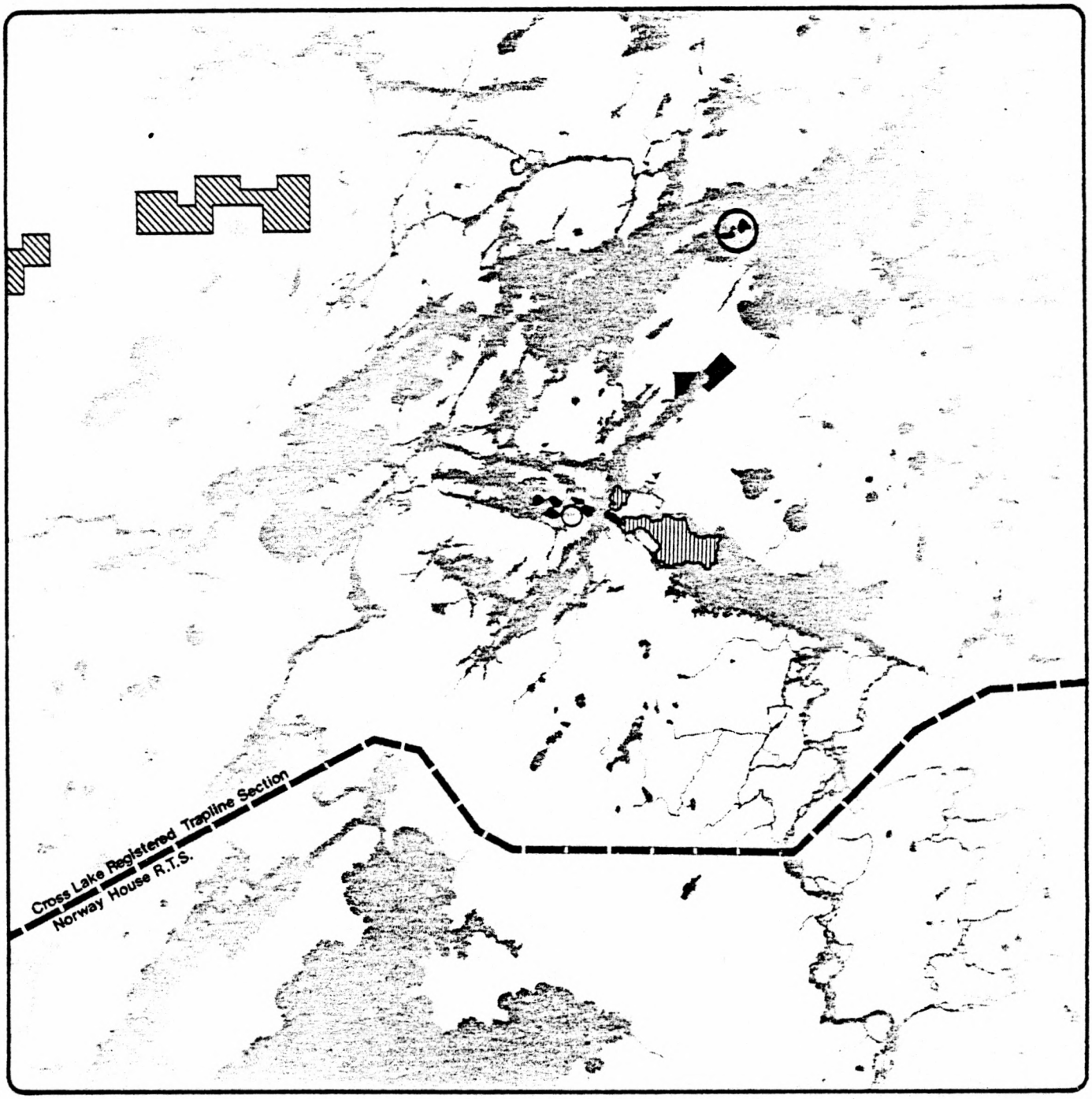

Presently Under Permit
Cross Lake Community Council
Cross Lake & Norway House Indian Bands
Manfor

Forestry: Cut Over Areas

MILES 0 1 2 3 4 5
KILOMETRES 0 1 2 3 4 5

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Fair Witty
& Associates

Cross Lake Planning Study

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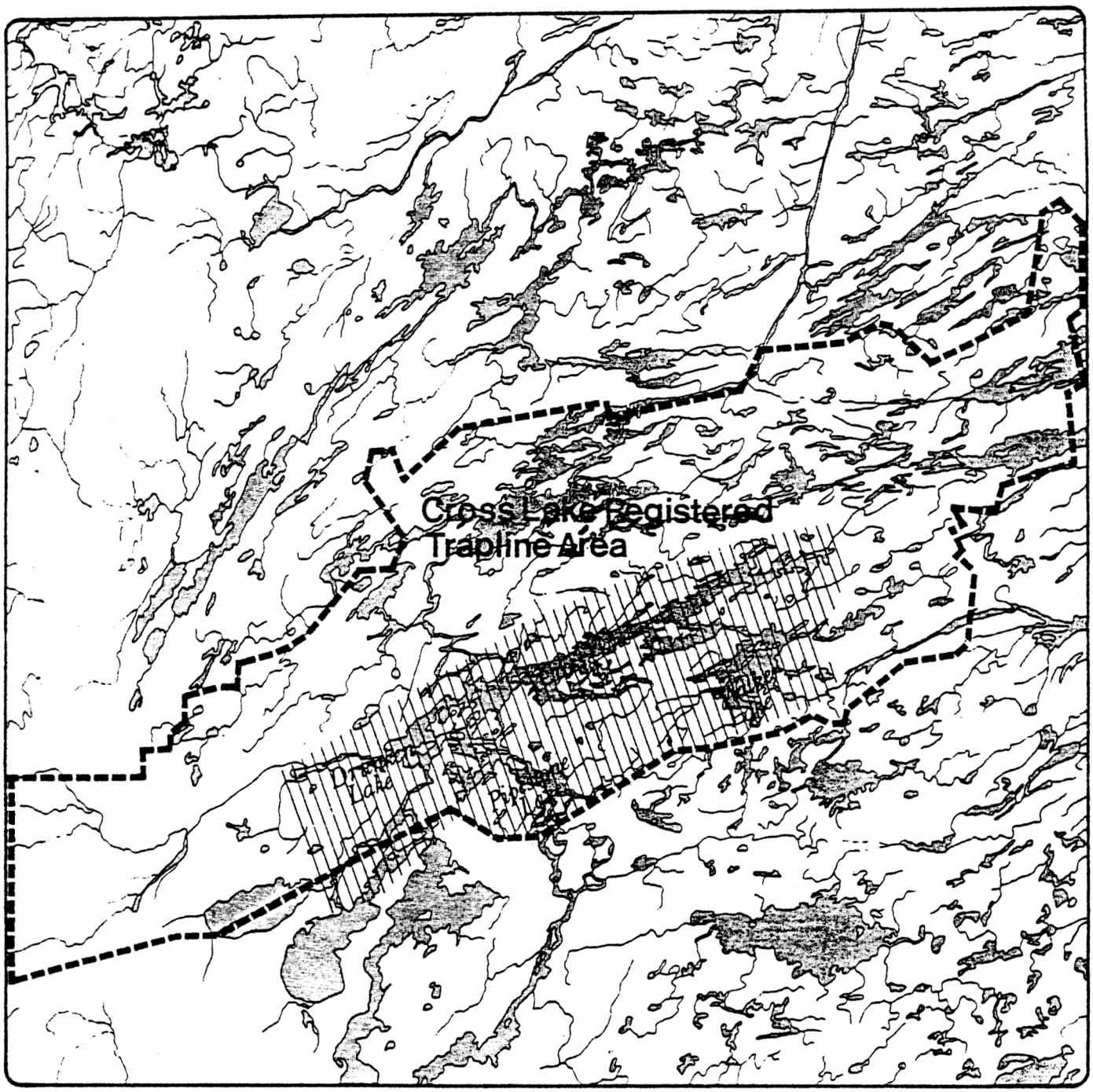

Cross Lake Commercial Fish Utilization Area

MILES 0 5 10 15 20
KILOMETRES 0 5 10 15 20

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& Dept. of Indian Affairs
by
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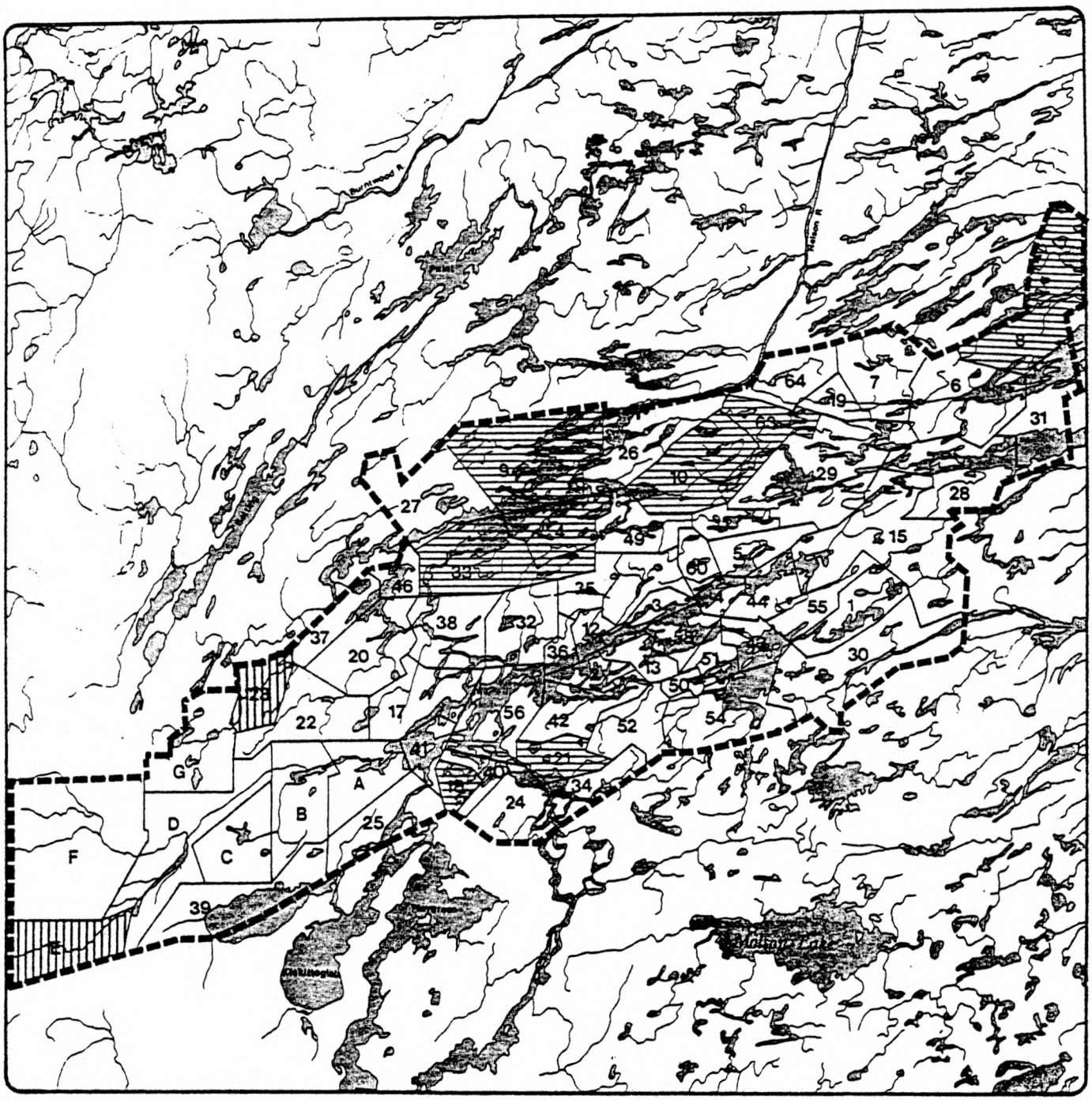

Registered Trapline Section

48 Trapping Block

Average Value 1969-79

$5.01-7.50 per trapline

$7.50+ per trapline

MILES 0 5 10 15 20

KILOMETRES 0 5 10 15 20

Trapping

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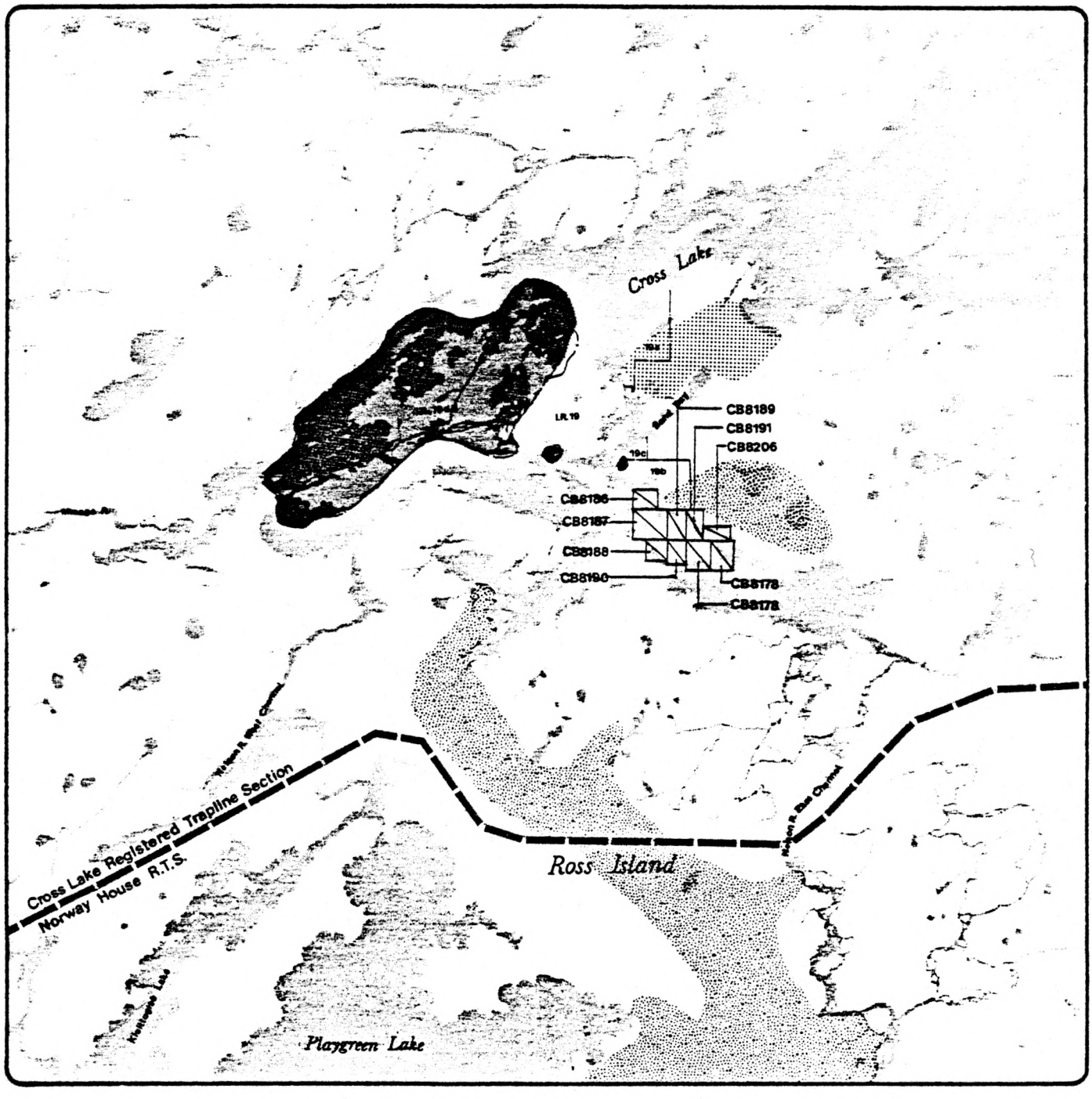

high grade aggregate deposits

medium grade aggregate deposit

pending withdrawal from staking

cancelled mineral claims land not reopened

Mineral & Aggregate Production

MILES 0 1 2 3 4 5

KILOMETRES 0 1 2 3 4 5

for the
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by
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& Associates

Cross Lake Planning Study

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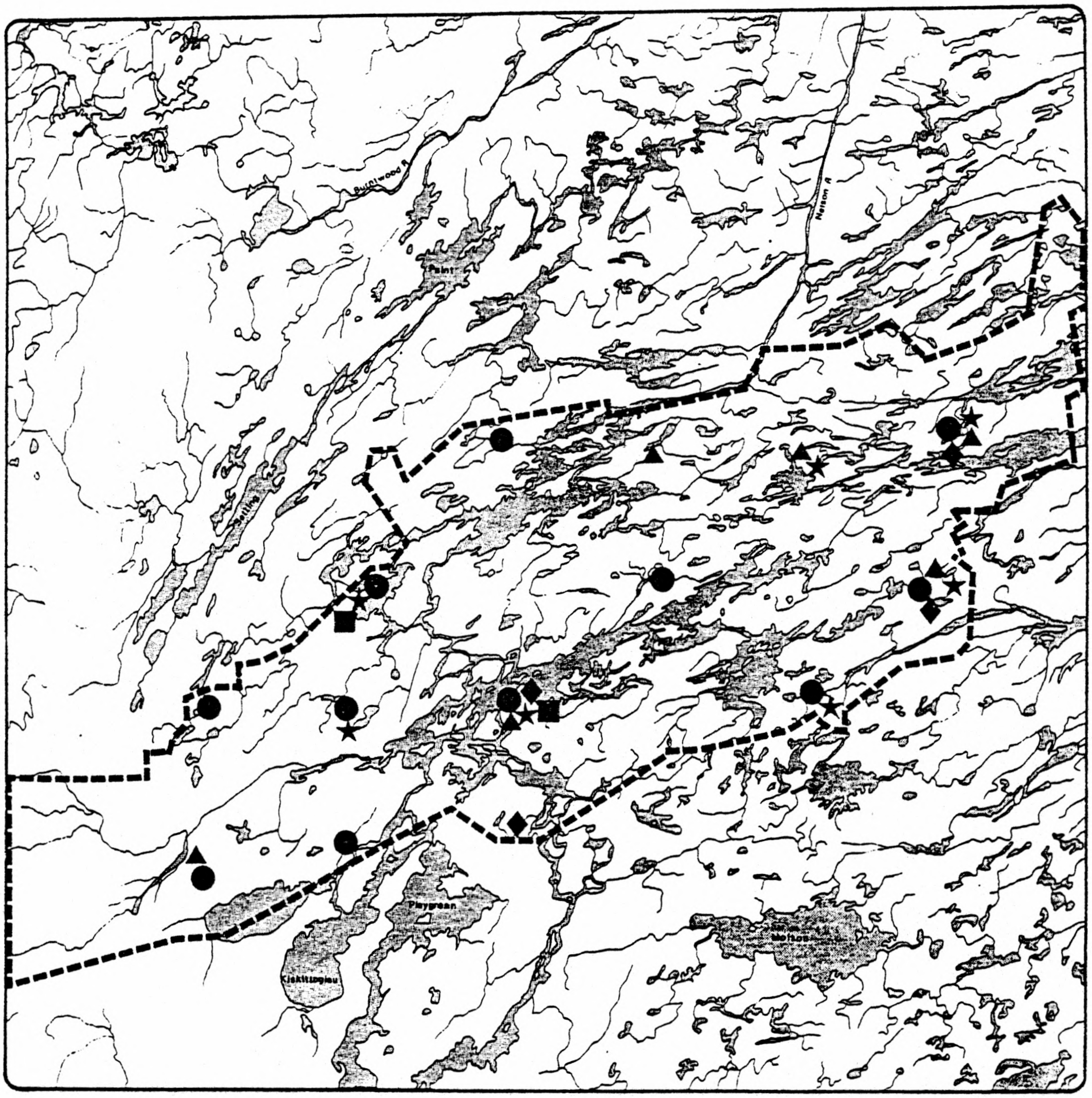


■ Molybdenum
◆ Gold
★ Copper
● Nickel
▲ Zinc

Estimated Mineral Resources

MILES 0 5 10 15 20
KILOMETRES 0 5 10 15 20

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Feir Witty
& Associates

TABLE 46:

CROSS LAKE RTL SECTION: SPECIE PRODUCTION BY SEASON

	73/74	74/75	75/76[1]	76/77	77/78[2]	Average	Region Total 1977/78
Trappers	119	124	150	168	157	144	2,026
Beaver	724	448	580	1,071	874	741	19,284
Muskrat	964	2,705	8,060	4,036	1,849	3,523	73,237
Mink	316	56	83	616	964	407	9,291
Lynx	8	3	11	45	162	46	2,963
Otter	87	96	103	194	212	138	2,327
Fisher	42	23	35	61	96	52	700
Weasel	55	97	84	N/A	N/A	79	N/A
Others	82	124	69	227	401	181	9,267
TOTAL	2,278	3,552	9,034	6,250	4,558	5,158	117,069

[1]1973-1976 figures taken from Cross Lake: Resource Allocation Project June 1977

[2]Department of Mines Natural Resources and Environment - Resource Planning Branch

TABLE 47:

CROSS LAKE RTL AVERAGE FUR VALUE ($)

	73/74	74/75	75/76	76/77	77/78	Average	Region Total
Beaver	14,079	6,872	11,780	22,941	15,881	14,331	350,391
Muskrat	2,699	7,087	29,177	17,234	8,524	12,944	337,781
Mink	6,952	735	2,158	14,519	22,596	9,392	217,781
Lynx	720	369	2,827	10,877	51,372	13,233	989,596
Otter	3,276	3,489	6,180	11,599	13,186	7,546	72,052
Fisher	1,817	1,044	3,395	5,391	9,881	4,306	144,869
Weasel	66	78	76	N/A	N/A	73	N/A
Others	491	109	426	1,339	4,541	1,381	240,128
TOTAL	$ 30,100	$ 19,783	$ 56,019	$ 83,900	$ 125,981	$ 63,156	$ 2,352,598
Average Income Per Trapper	$ 252.93	$ 159.54	$ 373.40	$ 499.40	$ 802.43		$ 1,160.00

[1]1973-1976 figures taken from Cross Lake: Resource Allocation Project June 1977

[2] Department of Mines Natural Resources and Environment: Resource Planning Branch

TABLE 48:

CORSS LAKE: AVERAGE PELT VALUE REGISTERED TRAPLINE #22

	73/74	74/75	75/76	76/77	77/78	Average
Beaver	19.45	15.34	20.00	21.42	18.17	18.88
Muskrat	2.80	2.62	3.62	4.27	4.61	3.58
Mink	22.00	13.13	26.00	23.57	23.44	21.63
Lynx	90.00	123.00	257.00	241.71	317.11	205.76
Otter	37.66	36.34	60.00	59.79	62.20	51.20
Fisher	43.26	45.39	97.00	88.38	102.93	75.39
Weasel	1.20	.63	.90			.91

TABLE 49:

ESTIMATED MINERAL POTENTIAL AT CROSS LAKE

	Area	Estimated Metal Content (thousands of tons)	Metal Tonnage as % Study Total	Average Place Value* ($)	Total One Tonnage	Average Grade
Nickel	Total**	16,200	100%	41.9 bil.	1.4 bil.	1.15% nickel
	IR***	50-100	.3-.6	.13-.25 bil.	4.3-8.6 mil.	
	RTL****	380-950	2.3-5.7	1-2.4 bil.	33-82.6 mil.	
Copper	Total	14,200	100%	14.2 bil.	740 mil.	1.92% Copper
	IR	50-100	.4-.7	60-100 mil.	2.6-5.2 mil.	1.88%
	RTL	200-400	1.4-2.8	200-400 mil.	10.4-20.8 mil	1.88%
Molybdenum	Total	1,230	100%	4.4 bil.	260 mil.	less than 5%
	IR	25-50	2-4.1	90-180 mil.	5-10 mil.	
	RTL	35-75	3-6	130 - 260 mil.	7-15 mil.	
Zinc	Total	11,200	100%	3.4 bil.	207 mil.	4.40% Zinc
	IR	10-25	.09-.22	3-7 mil.	.17-.43 mil.	5.8%
	RTL	130-280	1.2-2.5	40-90 mil.	2.2-4.8 mil.	5.8 %
Gold	Total	not stated	not stated	3.4 bil.	189 mil.	$18/ton
	IR	not stated	not stated	10-25 mil.	.6-1.6 mil.	$15/ton
	RTL	not stated	not stated	25-60 mil.	1.7-4 mil.	$15/ton

SOURCE: "The Undiscovered Mineral Endowment of the Canadian Shield in Manitoba" Federal/Provincial Cooperative Study 1972

*Place Value: The estimated value of the mineral in the ground without exploration, development, mining or processing costs.

**Total Study Area ***Indian Reserve ****Registered Trapline

[1]Total Study Area comprises all of the Canadian Shield area in Manitoba (about 161,500 square miles)

out of Cross Lake requires further study study.

The latest study available regarding Cross Lake geology has been prepared by the Manitoba Department of Mines, Natural Resources and Environment to be released later this summer and a study of the Minago River area just west of Cross Lake was completed in January of 1979.

(b) Cross Lake Reserves

The reserves are dominated by two major synclines. Underlain by hornblend schist and garnet-diopside schist derived from basaltic rocks and by arkose and conglomerate and volcanic sedimentary rocks and granite, the rocks on IR 19 are folded into an anticline. This is a result of two periods of folding, the Kenoran and Hudsorian. Associated with these folds are rocks which are strongly foliated. It is within foliation where suitable openings for mineral deposits can occur.

A brief study of the Cross Lake Reserve mineral potential was undertaken by the Department of Indian Affairs in 1971. This study indicated that "the Cross Lake reserves, for the most part, have a moderate to low economic minerals potential."

The report went on to identify "areas of some possible economic interest on reserve lands appear to be confined mainly to (a) the north northwest shore of Cross Island; (b) the shoals and small islands northeast of Cross Island; (c) the extreme southeast corner of Cross Island and (d) the area of IR 19C adjacent to the shore (Map 32).

As this report noted "most of these areas of interest have considerable adjacent water cover making a detailed and positive evaluation difficult and costly."

A further report indicated that:

> "it is probable that the Cross Lake area merits further investigation for base metals. The reasons for this opinion are:
>
> 1) favourable lithology
>
> 2) suitable structures, extensive folding and widespread foliation
>
> 3) proximity to the Churchill-Superior boundary and passge of the area through two orogenies
>
> 4) presence of at least some copper and zinc mineralization"

Previous work indicates the need to undertake more costly "in-depth geophysical surveys "in order to more fully determine economic mineral potential."

8.5.2 AGGREGATE PRODUCTION

The aggregate production at Cross Lake is currently much more viable than mineral potential. There are a number of moderate to high quality aggregate deposits in the Cross Lake (Map 30) including the Sand Bay area (moderate quality), a large area along the Jenpeg/Norway House access road, and a third in the Echimamish River/Hairy Lake and Butterfly Lake area (also of high quality). The aggregate deposits at Sand Bay are of particular interest to the community as a result of the direct access provided to them by the Jenpeg/Norway House Road.

8.6 AGRICULTURE

In the past, a small farming operation was carried on south of IR 19A. This mixed farming enterprise was managed by the Roman Catholic Mission. In addition, local gardens were frequently found in association with most houses. During the past 10 years, gardening has been reduced to a few small plots. Although there do exist small pockets suitable for intensive market gardening, larger agriculturally based farming operations are not feasible at Cross Lake. Canada Land Inventory (CLI) indicates that the area has low potential for agriculture (Map 33). The highest category, Class 5, is described by CLI as:

> "Soils in this class have very severe limitations that restrict their capability to producing perennial forage crops, and improvement practices are feasible."

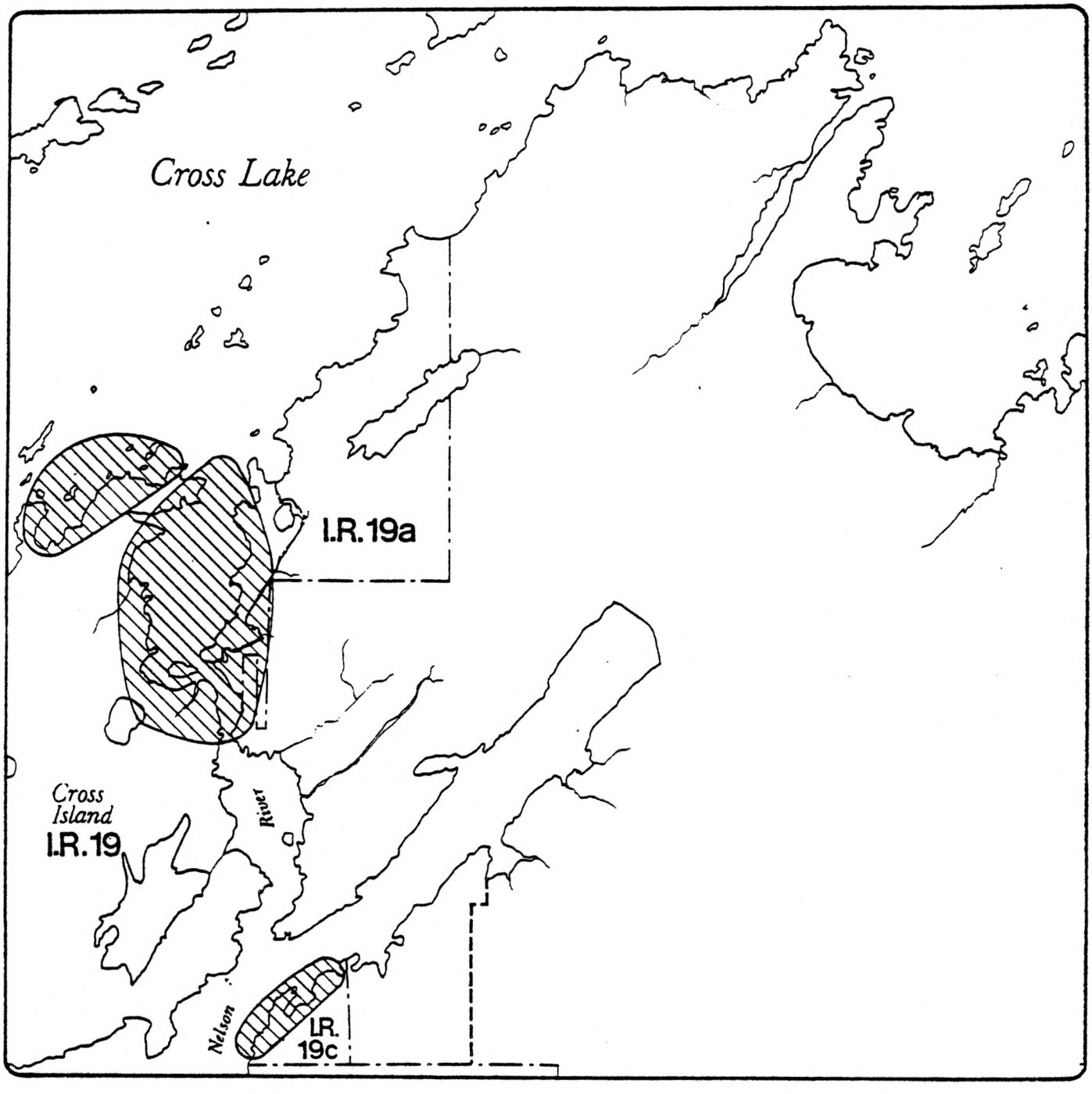
Local gardens however, are entirely feasible when located upon suitable soils and given southern exposure.

8.7 TOURISM AND RECREATION

Recreation facilities in the Cross Lake region are limited mostly to the Paint Lake Recreational Park and Wabowden area. The growing use of facilities throughout the north, however, suggests an increasing potential for some activities in the region as a whole.

8.7.1 FACILITIES/ACCOMMODATION

Tourist accommodation in the immediate Cross Lake area is restricted to one motel in the community itself. Outside the community, the nearest motel/lodge facilities are on Setting Lake, in Wabowden at Sasagiu Rapids (Map 34 and Table 50). Fly-in resort



Areas of Potential Mineralization

FEET 1000 2 3 4 One Mile
METRES 500 1000 1500

for the Cross Lake Band of Indians & Dept. of Indian Affairs by Holdsworth Fox Willy & Associates

Cross Lake Planning Study

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10 Mile Radius of Cross Lake

Canada Land Inventory

5 Class 5

7 Class 7

0 Organic Soils

Soil Capability for Agriculture

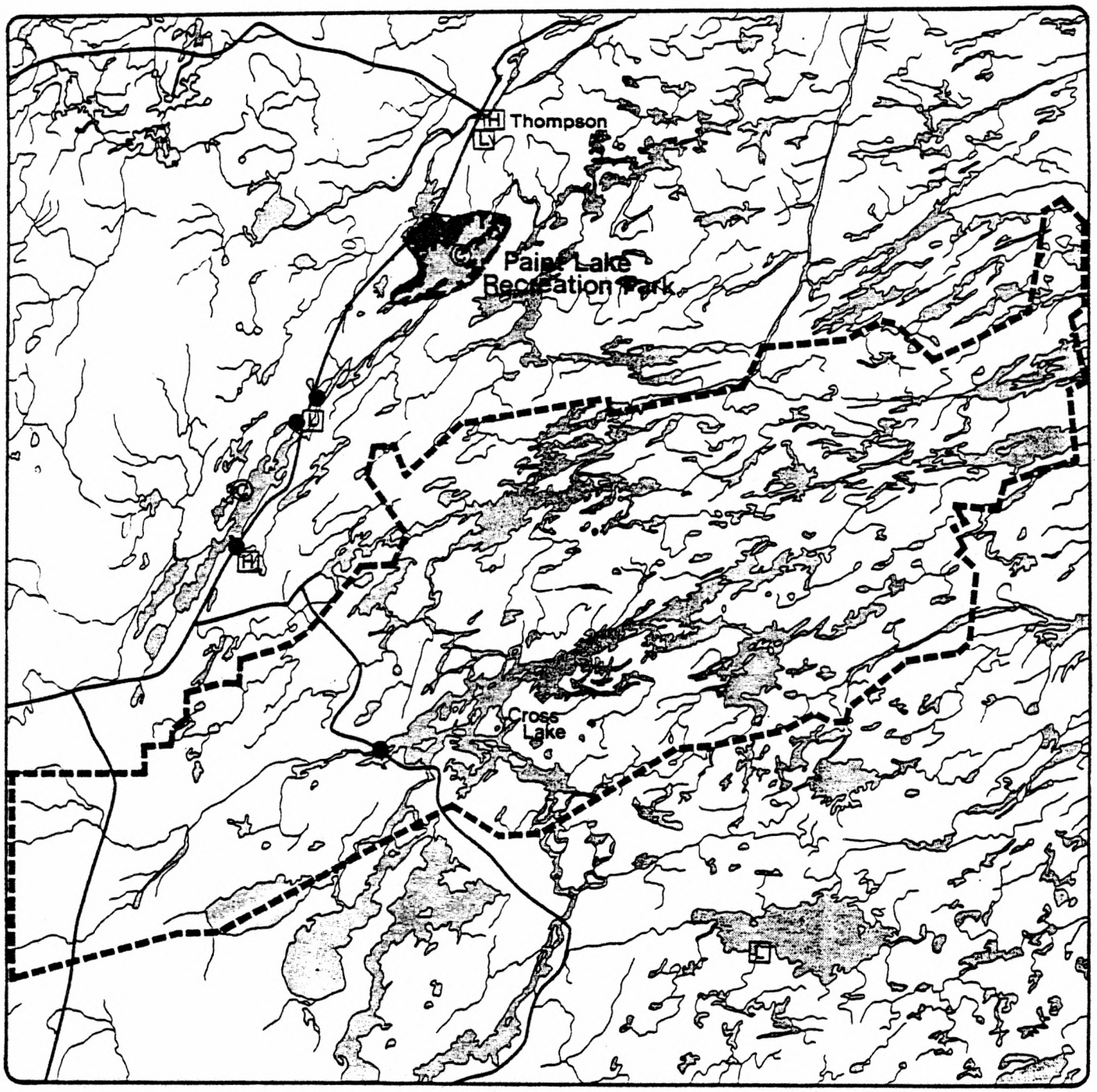
MILES 0 1 2 3 4 5

KILOMETRES 0 1 2 3 4 5

for the Cross Lake Band of Indians & Dept. of Indian Affairs by Hilderman Fair Witty & Associates

Cross Lake Planning Study

33



© Cottages Present ▲ Provincial Campground Hotel H

● Provincial Wayside Park Lodge L

MILES 0 5 10 15 20

KILOMETRES 0 5 10 15 20

Recreation & Accommodation Facilities

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Helderman Farr Wiltty
& Associates

Cross Lake Planning Study

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facilities are generally absent in the region, except for Molson Lake Lodge.

Campground facilities are available at Paint Lake Recreational Park, located just south of Thompson while 3 Wayside Parks exist in the Setting Lake area. These waysides include Pisew Falls, 20 miles north of Wabowden, Setting Lake, 2 miles west of Wabowden and Sasagiu Rapids Park, located near the lodge and 15 miles north of Wabowden. The closest facility to Cross Lake is the Minago River Wayside Park located roughly 14 miles west of the Cross Lake Community at the entrance of the river into the lake. This wayside is minimally developed.

Cottaging in the region, especially at Setting Lake, north of Cross Lake, has increased in popularity in the last few years. Paint Lake Recreational Park had 130 of 134 total lots occupied in 1978, while Setting Lake increased from 66 occupied lots to 143 occupied lots of a total 176 lots available from 1976 to 1978. This is a 203% increase which gives an idea of potential activity in the future for the area.

Thompson, located 60 miles directly north of Cross Lake is the closest major centre with 3 hotels, 1 inn, 2 campgrounds and 2 wayside stops in the immediate vicinity. All services and facilities are available.

8.7.2 PARTICIPATION

The most popular recreational activity in northern Manitoba is fishing. Studies conducted in 1970 by the Department of Tourism have shown that 69% of all Manitoba residents prefer fishing in northern Manitoba and 81% of non-Manitoban residents are in the north for this activity. Swimming was the second most popular activity (Table 51).

8.7.3 FISHING

Angling, is understandably, the major recreational activity in northern Manitoba. The Cross Lake area has consistently produced a number of large popular sport fish as shown by the Master Angler awards (Table 52). The major sport fish of Manitoba are all available at Cross Lake (Table 53).

In 1979, 14 master angler awards went to catches from Cross Lake with the average award catch being 18/year. Of the 20 best lakes rated in the mid-north, Cross Lake ranked eighth (Teillet, 1978). In addition, The Minago River and Nelson River produced 4 and 3 awards respectively in 1979 with a rating of 11th and 18th for all of the mid-north lakes. The major species of fish caught are northern pike, lake trout, whitefish and walleye, with good distribution also occuring in Lake Sturgeon and Burbot. Goldeye and Yellow perch are less abundant.

The most common award size species caught are northern pike, roughly 39%; lake trout, 55%; and pickerel at 10%. However, an all time angling record for perch caught in 1976 out of Cross Lake and for whitefish in 1975, display potential for other species as well.

Cross Lake appears to have a particularly high potential for lodging. This potential is based upon the excellent sport fishing potential of Cross Lake. For instance, the Fisheries Fact Book estimated that, under existing commercial and domestic fish harvest conditions, Cross Lake could support 157 trophy quality accommodation beds or 235 regular catch accommodation beds. This calculation is based upon the total productivity of the lake to support a combination of commercial, domestic and sport fishery activities. Since there are presently no sport fishing related facilities on Cross Lake, the potential for a low cost housekeeping resort package is significant.

In addition, the fly-in potential of nearby lakes such as Walker Lake requires further exploration. Such an operation of fly-in camps in association with low-budget family fishing ventures will provide a solid opportunity to top the sport fishing tourism market.

8.7.4 BOATING

The reservoir created by Jenpeg affords a number of lake activities, one of which is power boating. Potential boat launching ramps could be placed above or below the structure and with cleaning up of the construction area, picnic and wayside facilities could also be established. For the most part, however, boating is restricted as a result of shallows, rocks and shoals within Cross Lake. The Minago River displays one of the highest boating capabilities.

8.7.5 HUNTING

Hunting was estimated in 1973, to account for approximately 5% of the Cross Lake income. Also, 17% of all waterfowl hunting done north of the 53° N latitude is done out of Cross Lake. This amounts to roughly 587 user days with an annual harvest of 945 ducks, geese and other waterfowl (Table 4). The majority of this hunting was for domestic consumption by local residents.

Caribou and moose have a potential 650 miles of favourable habitat in the Cross Lake area along shorelines, but receive little hunting pressure. Only 5% of the total provincial harvest was out of this area. Dear hunting has been restricted for the mid-north from 1974 to 1978.

TABLE 50:

ACCOMMODATION

Paint Lake:	Campground	135 unserviced sites	Modern and non-modern facilities, showers, beach, store, gas/oil, boat/motor rental, drinking water, picnic facilities
	Cottages	134 lots available	132 occupied 1976 130 occupied 1978
Setting Lake:	Sasagiu Rapids Lodge (year-round)	10	Fully modern facilities, dining room, lounge, store, boat/motor rental. Fly-in service available.
	Cottages	176 lots	66 occupied 1976 143 occupied 1978
Wabowden:	Silver Leaf Hotel	23	Oining room, modern facilities, beverage room and telephone

SOURCES: Manitoba Vacation Guide 1980-81, Manitoba Department of Economic Development and Tourism, for camping, hotel, lodge information

Mid-North Manitoba, O. Teillet, Manitoba Department of Mines, Natural Resources and Environment and OREE 1979, for cottaging information

TABLE 51:

ACTIVITY PREFERENCES OF RECREATORS IN NORTHERN MANITOBA 1979 (FIGURES IN PERCENT)

Activity	Winnipeg[1] Residents	Manitoba[2] Residents	Non-Manitoba[3] Residents
Fishing	27.0	69.0	81.1
Swimming	16.2	67.0	21.4
Boating	16.8	42.0	31.7
Canoeing	3.6	6.0	1.1
Waterskiing	2.4	3.0	4.4
Hunting	1.2		2.7

[1] Winnipeg Household Survey of Vacation Travel, Research and Planning Branch, 1970

[2] Norman Tourist Study, D. McCloy, 1970

[3] Tourist Reception Surveys, 1970 Research and Planning Branch

SOURCE: Mid-North Manitoba: A Resource Information Package O. Teillet, Department of Mines, Natural Resources and Environment with OREE January, 1979

TABLE 52:

MASTER ANGLER AWARDS IN CROSS LAKE AREA

	1970 - 1977[1]			1979[2]	Mid-North[1]
	Average	Maximum	Minimum		Rating of top 20
Cross Lake[3]	18	31	6	14	8
Minago River	11	33	0	4	11
Nelson River	6	26	1	3	18
Carrot River				4	
Molson Lake				1	

[1]SOURCE: Mid-North Manitoba, O. Teillet, Department of Mines, Natural Resources and Environment 1979

[2]Master Angler Awards 1979, Department of Economic Oevelopment and Tourism

[3]May include Cedar Lake (Cross Bay) due to problem in location indentification

TABLE 53:

DISTRIBUTION ANO LIMITS OF POPULAR FISH SPECIES CAUGHT IN THE CROSS LAKE AREA

Species	Excellent	Good	Fair	Limit/person
Northern Pike	x			8
Lake Trout	x			3
Walleye	x			8
Whitefish	x			25
Lake Sturgeon		x		1
Burbot		x		no limit
Goldeye			x	10
Yellow Perch			x	no limit

TABLE 54:

HUNTING 1976/77

	Waterfowl		Caribou		Oeer		Moose	
	N.53'	Cross Lake*	N.53'	Cross Lake	N.53'	Cross Lake	N.53'	Cross Lake**
Licenses Sold	8,326		75			782		
Number of User Oays	83,916	587	241			5,422	23,161	955
Total Harvest	125,000	945	9			11		61

*Figures are .7% of N.53' Statistics

**Figures are 5% of provincial total

8.7.6 CAPABILITY

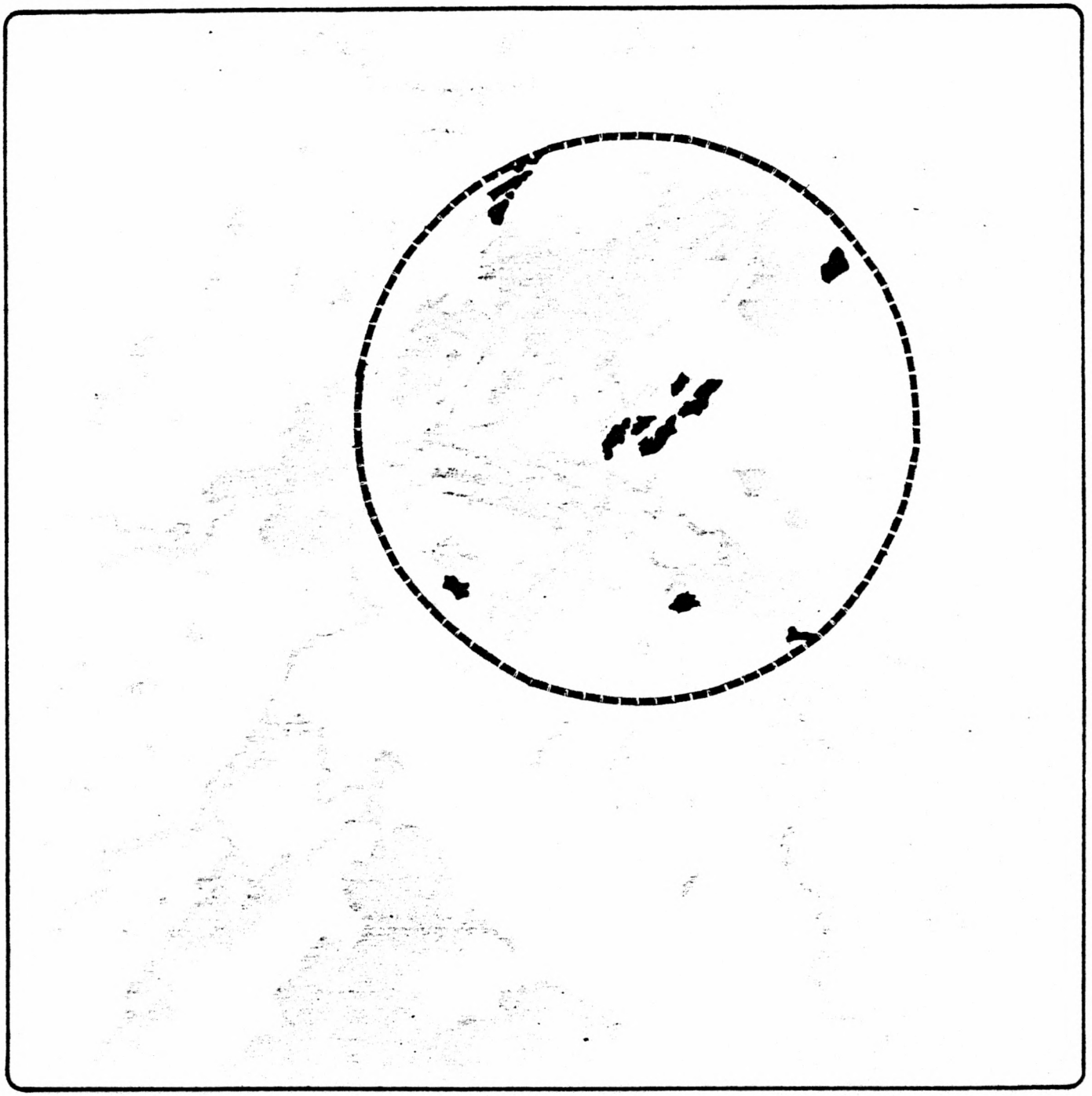
Overall, recreational activity is limited mainly to hunting and fishing. The area in general, is rated by the CLI outdoor recreational capability map as moderately low to low. However, a number of areas do illustrate some potential for certain recreational activities. These areas include: the Sand Bay region, the Minago River Wayside Park area, a few areas on the north shore of Ross Island and an area between the Kiskitto and Kiskittogisu Lakes (Map 35). These sites are primarily of a lodging potential.

Conclusions

- that the timber production potential surrounding Cross Lake is substantial
- that the opportunity to expand commercial fishing production is limited due to the current commercial quotas upon the commercial production lakes
- that sport fishing has excellent potential for tourism development
- that agriculture on a large scale is not feasible
- that the number of lakes available to Cross Lake residents for commercial fishing is limited because of the large number of lakes utilized by Wabowden and Norway House and the impacts caused by Manitoba Hydro
- that the local fishermen may be altering previous utilization patterns by switching to winter harvests in order to avoid severe summer lake level fluctuations.
- that the ability to harvest full commercial fish quotas is difficult due to the major fluctuations in water levels at Cross Lake in the summer
- that domestic utilization of fish resources is still an important source of food for band members
- that the potential for mineralized deposits in and around Cross Lake has been noted by geologists
- that aggregate deposits provide an important contribution to future development

Recommendations

- that the potential forestry areas (Twp.63 Rge.2, Twp.64 Rge 3, Rge 4, Twp.65 Rge 1, 3, 4) be placed under "hold areas" status pursant to the Northern Flood Agreement
- that local timber production be encouraged for all required wood building material
- that a log lathe operation be started as one means of producing local housing
- that the implications of changes to summer water levels be investigated to determine impacts upon commercial and domestic fishing and associated economic impacts
- that the availability of expanding the number of lakes for Cross Lake commercial fishing use be explored
- that trapping be encouraged to continue
- that the potential mineral areas on the reserves and surrounding Cross Lake be investigated further and that promising areas be placed under "hold areas", status.
- that the required expensive in-depth geophysical surveys be undertaken for the northern portion of IR 19 and the islands off of 19D
- that the potential for a tourist fishing lodge located at the Minago River crossing be explored by the Band
- that a market garden industry and local home gardens be developed at Cross Lake.



10 Mile Radius of Cross Lake

Class 3 Land

Land Capability for Recreation

MILES 0 1 2 3 4 5

KILOMETRES 0 1 2 3 4 5

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Fear Witty
& Associates

Cross Lake Planning Study

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9. *Impact of Hydro Development*

The Nelson River Hydro Electric Project was designed by Manitoba Hydro to regulate water levels and generate hydro electric power through a serires of 14 existing or proposed control structures/generating stations, located along the Nelson River and Rat and Burntwood Rivers. Immense changes were made to natural water regimes. Included in these projects was the regulation of Lake Winnipeg at Jenpeg, upstream from Cross Lake. The function of Jenpeg is to provide not only control of Lake Winnipeg (between 711 a.s.l. and 715 feet a.s.l.) but also hydro electric production. In order to Jenpeg to provide effective regulation of Lake Winnipeg, discharge of outflows must be regulated so that long-term power requirements below Jenpeg are maximized. In short, Lake Winnipeg, as a result of Jenpeg, is a reservoir for the hydro-electric stations on the Nelson River. Such regulation involves holding water during periods of low volume in the spring and summer and discharging higher volumes during winter when hydro-electric demand is greatest.

9.1 GENERAL

Although these volume releases were projected to fall within the historical water levels of Cross Lake, the controlled fluctuation within a season is often much greater than any found in natural conditions. As a result, in spring and summer, water levels traditionally rose, under controlled conditions, however, water levels have dropped substantially during spring and summer (particularly 1979 and 1980). In contrast, although winter water levels historically tended to remain relatively stable or dropped somewhat, recent controlled water levels of Cross Lake are a reversal of these past trends showing an increase in levels. Thus, the controlled water regime of Cross Lake is a reversal of natural conditions.

During the five years of Jenpeg operation, the effects upon flow volume and water levels has been dramatic (Table 55). Within the 1980 season for instance, water levels reached a low of 674.87 for May. Although Manitoba Hydro has indicated that such May levels are exceptional, an examination of 1977 May levels indicates that water fluctuated between 673.83 a.s.l. and 674.68 a.s.l. In fact, for the period May through September, 1977, the highest water level reached was 675.30 a.s.l.

The dramatic variance between yeras has created major problems for any infrastructure development. For instance, local docks are high and

Exposed shoreline during the summer of 1980 as a result of Jenpeg control

TABLE 55:

PAST-JENPEG WATER LEVELS - CROSS LAKE

	1975	1976	1977	1978	1979	1980
January						
High	681.8	681.89	679.39	680.31	682.56	680.94
Low	680.77	681.29	678.68	679.70	682.16	680.45
Average	681.27	-	679.16	679.99	682.42	680.66
February						
High	682.08	-	678.67	679.65	682.14	680.97
Low	681.58	-	677.92	678.98	681.82	680.41
Average	681.94	-	677.21	679.39	681.98	680.61
March						
High	681.53	-	677.90	678.97	681.82	680.61
Low	680.84	679.29	677.04	678.18	680.80	679.85
Average	681.12	-	-	678.61	681.42	680.33
April						
High	681.18	-	-	678.88	680.75	679.82
Low	680.79	-	-	678.15	680.43	677.33
Average	680.87	-	-	678.29	-	678.71
May						
High	683.26	682.9	674.68	679.28	-	677.30
Low	681.24	681.72	673.83	675.52	-	674.87
Average	682.37	-	-	677.23	-	incomplete
June						
High	683.24	682.64	675.30	675.57	685.36	
Low	783.23	781.6	674.56	675.02	685.10	
Average	-	681.98	674.72	675.26	-	
July						
High	-	681.99	675.01	675.43	685.33	
Low	-	679.10	674.35	675.13	684.25	
Average	-	680.86	674.71	675.26	684.90	
August						
High	-	679.03	674.76	676.06	684.18	
Low	-	677.81	674.34	675.24	675.95	
Average	-	678.58	674.84	678.62	677.89	

TABLE 55:

PAST-JENPEG WATER LEVELS - CROSS LAKE (cont'd)

	1975	1976	1977	1978	1979	1980
September						
High	682.47	678.33	674.84	678.62	677.89	
Low	680.26	677.21	674.53	676.05	676.18	
Average	-	677.48	674.70	676.92	677.23	
October						
High	683.63	680.24	678.71	680.07	681.59	
Low	682.13	678.43	674.59	678.98	677.42	
Average	-	679.31	675.74	-	679.34	
November						
High	-	680.96	679.79	-	682.28	
Low	-	678.38	678.78	-	681.30	
Average	-	679.23	-	-	681.92	
December						
High	-	679.80	-	-	681.23	
Low	-	679.38	-	-	680.71	
Average	-	679.60	-	-	680.96	

dry one year and satisfactory another year. Water supply lines are exposed some years while totally inundated at other times. For instance, between June 1978 and June 1979 the elevation of Cross Lake varied by over 10 feet.

The impact upon Cross Lake of thse abnormal conditions is nothing less than severe. The effects of this reversal in water regime includes:

- a reduction in summer fishing (commercial and domestic) due to difficulty of net setting, difficulty of lake access, extensive shallows
- a requirement to substitute winter fishing in order to maintain traditional commercial fishing quotas
- a reduction in water quality for domestic consumption due to reduced flushing action in spring and summer, the critical period of water contamination due to accelerated runoff
- interruption of traditional access to the land for cultural/recreational functions
- increased silt load of the traditionally clearer waters of Cross Lake
- loss of shoreline habitat types, creating difficulty of adjustment for beaver and muskrat and subsequent dramatic changes in trapping harvests
- costly maintenance of ferry crossing to alter the ferry landings to meet rapidly rising and falling water levels
- concern for loss of spawning grounds for whitefish and pickerel

Local beach lost to recreation use

Cross Lake tributary drawdown and resultant loss of fur habitat

9.2 SUMMARY OF TRITSCHLER REPORT

Provided a mandate to examine the Manitoba Hydro's development program of the Churchill-Nelson Hydro - electric scheme, the Commission of Inquiry into Manitoba Hydro reported on its findings in December, 1979. The study indicated some very serious problems relating to the scheme, particularly as it affected local communities such as Cross Lake. For instance, the report repeatedly indicated that a continuous posture of confrontation by Manitoba Hydro and the Manitoba Government as well as misinformation was a modus operandi with local communities (pages 210, 211, 213, 219). For instance, Tritschler reports:

> "Government and Hydro adopted a stance toward the native communities and the Northern Flood Committee of confrontation, hostility and procrastination with, on more than one occasion, a lack of frankness." (p. 219)

The report continues:

> "the concerns of the affected communities and ultimately the protracted negotiations with the Northern Flood Committee (NFC) all stemmed from the lack of essential engineering and environmental knowledge" (p. 461).

Finally,

> "the total identification of interest between Hydro and Government in negotiating with the affected communities was inappropriate. The interests of Government and Hydro are not always identical. In this event, Government became the advocate of Hydro and thus was unable to fulfill a meaningful role on behalf of the citizens of northern Manitoba who were affected by the activities of Hydro." (p. 462).

Due to this problem of information flow and lack of representation, Cross Lake did not have adequate opportunity to investigate or determine potential impacts to its residents and environs. The Tritschler report clearly substantiates the community position that:

(a) The impacts of Hydro development were never clearly defined;

(b) information was often difficult to obtain and evaluate;

(c) the communities were forced to create their own mechanism for representation (NFC); and

(d) The Northern Flood Agreement is an open ended document which will provide significant compensation for all phases of community development.

9.3 IMPACT ASSESSMENT FOR STUDY BOARD

Given that the information available on impact for Cross Lake is scanty and based on pre-impact assumptions, no hard data is yet available to determine the actual impacts of Jenpeg construction and operation. Even so, the Lake Winnipeg, Churchill and Nelson Rivers Study Board did complete an expected impact evaluation for Cross Lake. The Board indicated that many of the problems experienced today at Cross Lake would likely occur. The Board, however, could not predict the severity of impact now experienced.

9.3.1 WATER LEVELS

The effect of Jenpeg on Cross Lake is essentially dealing with two changes, these being the reversal of peak levels and an increase in the degree of fluctuation.

Without regulation, Cross Lake peak levels occurred in March. Generally, the fluctuation level never varied more than one foot from month to month; though flood years have been known to have up to 2.6 feet in elevation change. Prior to regulation, the average lake level was 678.5.

Within the construction of Jenpeg, anticipated peak flow now occurs in the winter, usually 1 to 1.5 feet higher than the unregulated peak and minimum levels of 1.5 to 2.5 feet lower than the usual regime now occurring in the summer. In addition, the area upstream of Jenpeg often has broken ice conditions resulting in decreased discharge at the control structure. To alleviate this situation, discharge from Jenpeg is reduced in November until freeze up occurs, resulting in smooth ice formation upstream. Increased discharges downstream in December are then permitted until normal flow rates are achieved. As a result, a maximum drop of 4 to 5 feet may occur in November at Cross Lake and a rise of 3 to 4 feet in lake levels is possible in December. It should be noted that the sudden increase in discharge may result in weakened and flooding ice conditions downstream.

9.3.2 SHORELINE CHANGES

The 871 miles of shoreline around Cross Lake is dominantly bedrock controlled, with marsh areas offshore. The backshore area consists mostly of aspen and white birch. With increased water levels in winter, very little change to the shoreline occurs due to the resistant nature of the granite bedrock. Ice scour, however, may remove marsh vegetation offshore. Low water levels in summer essentially result in an extension of bullfushes and sedges farther offshhore and may result in other marsh areas being dried up. Often the bedrock protusions into the lake create difficulties for navigation.

9.3.3 CHEMICAL, BACTERIOLOGICAL CHANGES

The transparency of Cross Lake was highest of all in the outlet lakes, which is due to the low erosion rates of their bedrock shoreline. The readings for Cross Lake at the south of the Nelson River discharge corridor were comparible to other outlet Lake areas being basically a seasonal decrease in turbidity, color, silica, organic carbons, phosphorous, sodium and nitrates from summer to winter. With increased summer erosion above Jenpeg, Cross Lake turbidity appears to have increased substantially.

9.3.4 LIMNOLOGY AND FISHERIES

The major concern involves the reversal of peak water levels and the increased amplitude of change. The decreased water levels in spring and autumn result in a decrease of pike and whitefish production.

The Jenpeg structure itself inhibits mobility of fish. As well, decreased summer water levels make mobility for fishermen more difficult and has resulted in a decrease in commercial fish yields. The lake levels could be increased artificially in summer, with a control structure at the outlet of Cross Lake.

Traditionally, the summer harvest of Cross Lake has been 114,000 lbs. In the summer of 1975, after Jenpeg became operational, the total harvest was almost half of the average for the previous years. This decline was largely in the number of whitefish harvested. To compensate for changes in the water regime, winter harvest of whitefish and pike has increased. As well, the winter season of 1977/78 for Walker Lake shows an increase of

1977/78 for Walker Lake shows an increase of almost 700% from previous winter totals for northern pike and 775% for whitefish production.

9.3.5 WILDLIFE HABITAT, POPULATION AND USE

Specific population studies of wildlife are non-existent for this area, but generalizations have been made through information from the local community and aerial surveys.

The two most common species of ungulates in the Cross Lake area are moose and woodland caribou. As Cross Lake has over 650 miles of natural moose habitat, the actual number probably exceeds the estimated .3 moose/mile. This would place the population at roughly 200 in the Cross Lake area. Of these, 61 were harvested in 1971 by licensed hunters. An unknown additional number was taken by Registered Treaty Indians but considering an annual allowable harvest of 80 moose in the Outlet Lakes area (as it has been known to be), hunting pressure is minimal. The Jenpeg forebay area was estimated to remove 48 moose from the Outlet area. In addition, increased hunting pressure afforded by the Jenpeg road was thought to increase harvests by 20%.

Woodland caribou data is scarse, but at least 1 herd is known to exist in the Cross Lake area. An estimated 6 animals were harvested in 1970/71 and .9 in 1972/73. The total kill for Manitoba was 44 and 33 respectively. By 1975 to 1977, the average harvest of Caribou for Manitoba was 14 amongst an actual 77 licenses sold. Jenpeg's major effect would apply to inhibition of herd migration, as a result of weakened ice conditions in the fall.

Waterfowl and bird hunting potential is high in Cross Lake, especially in the northern end of the lake. The impact upon waterfowl production is unknown although ice scour and extreme decreases in water level likely reduce waterfowl nesting habitat.

Furbearing animals such as muskrat, beaver, mink and to a lesser extent lynx have also been impacted. Cross Lake has experienced a drastic decrease in muskrat populations and other marsh/water edge related species due to the displacement of marshes. The low water levels in the fall at Cross Lake, a result of allowing increased water level upstream of Jenpeg for smooth ice formation, result in drying up of marsh areas. As a result, muskrat and beaver houses may be established in lower areas, later to be inundated by the increased discharge of water in winter. Also, shallow water levels may freeze to the lake bottom "freezing-out" muskrat.

Further, the extreme drawdowns in early summer severely affect breeding populations of all water-edge species.

Beaver, slightly more land based, may adjust to the water regulation problems but populations of beaver will likely suffer some losses due to regulation. The 1976/77 and 1977/78 harvests have born these predictions out to a degree. The total percentage drop of beaver harvest from 1976/77 to 1977/78 was 18% while the muskrat harvest dropped by 54%.

It is well documented that the cyclic nature of land based fur species such as lynx and the current abnormal high prices for long furs will not sustain a health trapping program in the long-term. To ensure such health, diversity of available species is essential, Jenpeg as detrimentally affected this diversity.

Where the total harvest of 1976/77 amounted to 6,250 pelts at a total value of $83,900, the 1977/78 harvest was 4,558 pelts valued at $125,981. The increase value is a function of market prices and species of pelts caught. Where beaver and muskrat, mink and lynx accounted for 17%, 65%, 10% and .7% of the total harvest in 1976/77 respectively, these were 19%, 41%, 21% and 4% in 1977/78. The effect of Jenpeg upon the numbers and types of fur harvested is apparent.

9.3.6 FORESTRY

The timber clearing program to establish Jenpeg resulted in the removal of some 12,000 acres of timber from the 22,000 acres of land to be flooded. The total loss of gross merchantible softwood was estimated at 11.5 million cubic feet. An additional 5 million cubic feet of hardwoods was also lost. As a result of Jenpeg control, a loss occurred of 15% of the total forestry resource available to the community.

9.3.7 RECREATION

The most obvious loss to recreation opportunities is related to the decrease in potential outdoor recreation activities on Cross Lake and the Nelson River drainage system. This loss is directly related to the decrease in summer water levels. As a result, lake access is difficult and aesthetic quality reduced.

Within the community of Cross Lake, per se, serious impacts upon recreation are apparent. Traditional heavy summer use of the lake by recreational sport fishing, swimming and water skiing is now drastically modified due to low water levels. Sand beaches are often left high and dry. Docks which were frequently the base for swimming and water skiing are distant from any water. In the winter, the lake was used for at least 10 local skating

rinks. As a result of increased winter discharge volumes, however, lake ice is no longer safe or desirable for winter skating.

9.3.8 TRANSPORTATION

Local in-community transportation was largely boat dependent. As a result of decreased summer lake levels, boat access to docks has become very unreliable. No longer can residents easily boat to the "Bay" for shopping purposes, visit friends or travel to traditional summer use camps.

To compensate for this loos in boating, increased emphasis has been placed upon the upgrading and construction of roads in the community, as well as a new highway access from the Jenpeg Road. Even so, within the community access remains a difficulty due to irregular water levels. This is a result of the need to continually adjust the ferry crossing in the community to meet varied water levels. Such adjustments make local use of the ferry difficult as well as delaying crossing and reducing ferry volume capacity.

9.4 MITIGATION REQUIREMENTS

An agreement between the Manitoba Government, the Northern Flood Committee, Manitoba Hydro and the Federal Department of Indian Affairs was established to outline the obligations of all parties concerned and provide compensation for any damages resulting from the Nelson River hydroelectric project. The formal agreement, signed in 1977, has been outlined very briefly in the following with further recommendations from the Lake Winnipeg, Churchill and Nelson Rivers Study Board designated as well.

9.4.1 LAND EXCHANGE

Compensation of 4 acres of land for every acre of affected land. The land is to be used for community development. If land not satisfactory to the Band, notification to the Provincial Government is required within 5 years.

9.4.2 WATER LEVEL CONCERNS

- easement of all lands below 690 feet a.s.l and contiguous with the Nelson River to be established
- the level of Cross Lake to be managed, if possible, within a fluctuation range of 2 feet during the November/December flow outback period at Jenpeg
- a control structure and associated channel improvements at the outlet of Cross Lake may be required
- measures and works required for the protection, restoration or adjustment of community infrastructure, shorelines, or property as a result of the new water regime to be at Hydro's expense
- temporary buildings and all debris as a result of construction activities, to be removed and incinerated
- revegetation of areas of all channels where spoil has been deposited is recommended.
- all maintenance costs to be capitalized

Notification

- Manitoba Hydro to notify the Bands in writing of any proposed future plans
- Manitoba Hydro to complete its program of advising holders of land entitlements, mining claims, timber permits, etc. of anticipated flooding

9.4.3 NAVIGATION/TRANSPORTATION

- Residents of the reserve have free and normal navigation rights of waterways. Manitoba government to be responsible for removal of obstructions created by the construction of causeways
- "Landing and boat launching approaches should be provided at intervals of 3 miles along the navigation channels, by clearing and grubbing strips 200 feet wide."

Jenpeg Road Concerns

- an all-weather road built between the community and the Jenpeg access road is recommended
- protection of the Minago River crossing area at the Jenpeg road from intrusions for gravel and bxrrow pits is further suggested
- finally, a tree buffer zone is recommended to be maintained around burrow pits and between roads and transmission lines

9.4.4 WATER QUALITY

- Government of Canada to ensure availability of potable water supplies on each reserve

9.4.5 WILDLIFE CONCERNS

- Reserve to get first priority to all wildlife resources wtihin the trapline zones
- hunting and fishing activities of construction workers to be controlled if necessary to ensure stocks for local people

- The Manitoba Government to make an effort to provide:

  i) alternative Resource Areas

  ii) a Wildlife Advisory and Planning Board

- Further

  i) Construction of a fish attraction and holding device at Jenpeg

  ii) a temporary fish handling station, docking facilities, and a regular truck pick-up at the mouth of the Minago River for trucking commercial fish to Wabowden.

9.4.6 POLICY CONCERNS

- Wildlife Policy (see above)

- Planning Policy - the Federal and Provincial Governments to provide a comprehensive Community Planning Study

- Environmental Impact Policy: to be established to implement recommendations set by the Lake Winnipeg, Churchill, and Nelson Rivers Study Board

- Registered Trapline Program and Fishing Program: Hydro to develop an interim program to provide income assistance and support payments to trappers whose trapping activities have been or will be affected, directly or indirectly, by the new project.

  Further, the parties to negotiate, and Manitoba Government and/or hydro to fund and implement a program to provide for equitable compensation of all adverse affects on fishing activities within the Resource areas.

- Miscellaneous Policy: to benefit Canadian and Manitoba citizens and to assure any damages are appropriately and justly compensated for.

- In the public's best interest, employment of reserve residents in all works and operations of Project to occur where possible and implementation measures to achieve that objective, including education, training and on-the-job training to be aimed for.

Other Concerns

- protection of cemetries and other pbjects of cultural significance to be the responsibility of the Provincial Government and Hydro

- Maps showing affected lands to be provided to all reserves by Hydro

- a group life insurance policy to be implemented to cover the residents in case of injury, damage to personal property or death as a result of the project.

- a Community Liason Committee and Employment Task Force to be established

- an arbitrator to be agreed upon by all parties to adjudicate upon claims, or matters of dispute

- Remedial Works

  i) Funds made available to the DIA by Hydro for remedial work at Cross Lake. The Band and Development Corporation to use funding at their discretion for the works. The Band and Corporation to take full responsibility and liability of such works. Hydro shall indicate its views to the Band as to the significance of the work proposed.

  ii) Schedule G (attached) to be funded by Hydro, implemented by Cross Lake and the Corporation as they see fit. Hydro to provide engineering assistance or advice where requested by the Band

In conclusion, the agreement covers the requirements necessary to compensate the areas affected by the Hydro Development in all ways possible. Problems arising as a result of the project and not covered by the agreement can be taken to the arbitrator.

Conclusions

- that the Jenpeg structure has dramatically affected traditional winter and summer water levels on Cross Lake by altering water levels

- that the Jenpeg structure has affected comm-commercial fish yield on Cross Lake

Recommendations

- that the band continue to pursue compensation for damages and changes to traditional uses of Cross Lake

- that the resulting impacts from Jenpeg be thoroughly evaluated in special impact assessment study of Cross Lake

- that the mitigation potential of an outlet control be examined.

10. Impact of Garrison Diversion Unit

The Garrison Diversion Unit (G.D.U.) of the Pick-Sloan Missouri River Basin Project is a United States Government sponsored irrigation project which, if fully implemented, will have major detrimental impacts upon the Red River drainage system and all waters into which the Red River drains. In brief, the intent of this program is to transfer waters out of the Missouri River watershed into the Red River Basin. Associated with such a transfer will be the creation of massive canal works and man-made reservoirs.

Through these works which will link the Missouri and Red River drainage systems, a variety of impacts will result for Manitoba. Of particular concern is the impact that the G.D.U. will have upon the communities adjacent to the water courses through which the affected waters flow. Cross Lake, lying along the Nelson River Drainage system into which the waters of Lake Winnipeg and hence the Red River flow, is one such community.

In a study undertaken for the Manitoba Indian Brotherhood by Reiber-Kremers and Associates Ltd., The Impacts of the Garrison Diversion Unit on Manitoba Indian Communities (1979), a few potential impacts for Cross Lake were outlined. These included the expected moderate to substantial negative impact to fish populations. Such changes to fish populations were projected to likely destroy the remaining commercial fishing industry. The report also noted that such an impact could seriously affect the community's economic base, domestic food consumption and traditional lifestyles.

Recommendations

- that the progress of the G.D.U. be carefully monitored by the Cross Lake Band.

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Appendix One

CROSS LAKE COMMUNITY PLANNING STUDY
QUESTIONNAIRE SUMMARY - 42 HOUSEHOLDS

1. a) How many peoole live in this house?

	No. of Responses
two	1
three	2
four	3
five	5
six	6
seven	6
eight	5
nine	4
ten	4
eleven	1
thirteen	1
fourteen	1
fifteen	1
sixteen	1
seventeen	1

b) How many families live in this house?

	No. of Responses
one	27
two	11
four	2

2. What are their ages?

Age	Male	Female	Total
0 - 4 years	17	22	34
5 - 9	33	22	55
10 - 14	27	17	44
15 - 19	30	21	51
20 - 24	14	11	25
25 - 29	9	12	21
30 - 39	9	16	25
40 - 49	12	9	21
50 - 59	4	12	16
60 or older	7	6	13
	159	146	305

3. Are you employed now?

yes 9
no 32

If yes, name location and job

Location: Cross Lake 9 responses

Job:	
Health Worker	1 response
Janitor	2 responses
Electrician	1 response
School Transportation	2 responses
Northern Flood Committee	1 response
Band Manager	1 response
Truant Officer	1 response

4. Are you usually employed?

yes 21 responses
no 17 responses

5. Where do you usually find work?

Cross Lake	20 responses
Jenpeg	1 response
Rivers	1 response
Gillam	1 response

6. If you do not have full time work, do you wish to?

yes 23 responses
no 6 responses

7. Are other members of this household usually employed?

yes 22 responses
no 18 responses

If yes, how many?

1 person	13 responses
2 people	4 responses
3 people	2 responses
4 people	1 response

8. List work experience of all adults in this household.

	No. of Responses
community health representative	2
nursing station	1
secretary	1
clerk/typist	2
guidance counsellor	1
home/school coordinator	2
social work	1
truant officer	1
teacher/teacher aide	3
ward aide	1
welfare aide	1
janitor	4
Band	1
school transporter	1
councillor	1
band manager	1
band manager trainee	1
handicrafts	4
housework	13
babysitting/cleaning	4
electrician	1
heavy equipment operator	1
carpenter	2
carpenter's helper	2
crusher operator	1
labourer	1
construction	16
wood cutting	2
sawmill	1
Manitoba Hydro - Jenpeg	1
mining	1
railroad	1

8. List work experience of all adults in this household (cont'd)

	No. of Responses
truck driver	2
taxi driver	1
kitchen help	1
waitress/cook	2
baking	1
restaurant manager	1
housemaid	1
cashier	1
Bayclerk	1
fur dealer	1
radio announcer	1
bike factory	1
fishing	3
trapping	6
guide	1

9. What type of work would you like to do?

	No. of Responses
health work	1
community sanitation	1
handicrafts	4
cooking and banking	1
electrical	1
truck driver	1
office work	1
carpenter	4
janitor	2
home economic instructor	1
labourer	10
sign painting	1
fur buying	1
heavy equipment operator	2
cashier	1
fishing/trapper	1

10. What type of employment opportunities would you like to see developed for the Cross Lake Band?

	No. of Responses
bank	1
mixed farming	1
gardening	3
recreation centre/park	1
sewing factory	3
mechanic	2
upholstery shop	1
cabinet making	1
clerking	1
road construction	5
old folks home	9
child care centre	7
restaurant/hotel	5
shopping mall	1
garbage disposal	2
handicrafts	1
new school	1
heavy duty operations	1
log housing	4
more sawmill operations	4
building construction	4
wood cutting	1

10. What type of employment opportunities would you like to see developed for the Cross Lake Band? (cont'd)

	No. of Responses
hunting and fishing	1
garage	2
summer jobs for students	3
job opportunities for men and women	1

11. What training programs are needed in the community to improve employment?

	No. of Responses
welder	2
plumber	1
carpentry	20
engineering	1
mechanic	11
electrician	11
heavy equipment	7
social work	3
nursing/nurse assistant	7
day care training	1
T.V. technician	1
watch repair	1
adult education	7
upgrading	5
business training	1
trades programs	3
dental care	1
office work	1
hair dressing/barber	5
ward aides	2
construction	1
cooking	11
sewing	7
leadership programs	4
recreation	1
teaching	3
on-the-job training	3
secretary/typing	3
machine operator	1
administration	1
credit and non-credit	2
gardening	1
trapping	1
driving	1
bookkeeping	1
health workers	1
painting	1

12. How old is your house?

2 years old or less	3 responses
3 to 6 years old	12 responses
7 to 10 years old	12 responses
more than 11 years old	15 responses

13. What facilities do you have at your house?

	No. of Responses
trucked water supply	38
water holding tank	18
well	0
septic field	0

13. What facilities do you have at your house? (cont'd)

	No. of Responses
washer and dryer	8
washer only	26
television	41
hand haul (well) water	0
hand haul (lake) water	24
outdoor privy	31
electricity	38
hot running water	0
telephone	29

14. How do you heat your house?

	No. of Responses
wood	23
electricity	24
oil	5
propane	1
other	0

15. How many rooms in your house?

No. of rooms	No. of Responses
2	2
3	8
4	12
5	6
6	3
7	4
2 bedrooms	2
3 bedrooms	3
4 bedrooms	2

16. Have additions been made to the original house?

yes 2 responses
no 40 responses

If yes, what are they?

outdoor porch 2 responses

17. Indicate the general condition of your house.

poor	25 responses
fair	12 responses
good	3 responses
very good	1 response

18. Does your house require repairs?

none	6 responses
minor	8 responses
major	24 responses

If major, what are they?

Type of Repair	No. of Responses
painting	4
flooring	22
cupboards	4

If major what are they? (cont'd)

Type of Repair	No. of Responses
porch	1
levelling	2
foundation	5
windows	18
doors	17
insulation	3
reduce drafts	2
leaky roof	2
drafty floor	1
ceiling	7
closet doors	3
walls	6
baseboards	1
better heating	1
chimney	1

19. Indicate which items, if any, are problem areas in your house?

	No. of Responses
drafty windows	38
drafty floor	30
poor heat	28
electrical wiring	14
leaky roof	18
broken floor tile	34
rotting window sill	29
rotting floor	1
hall light	1
walls not well constructed	1
not yet	1

20. Are you happy with your house?

yes 19 responses
no 23 responses

Why or why not?

no . . .	No. of Responses
too drafty	1
too small	9
ants	1
poorly constructed	4
poor condition	3
needs repairs	7
walls thin	1
poor flooring	1
too close to road	1
I do not own it	1
too old	2

yes . . .

better than nothing	2
because its a home	1
good location	1
if repairs provided	1
no where else to go	1

21. What changes would you like to see made to new houses?

	No. of Responses
indoor plumbing	14
running water	14
log houses	13
larger	5
duplexes	3
porch	3
better insulation	2
electric heat	2
basements	2
separate dining and kitchen areas	1
bigger bedrooms	1
air conditioning	1
less moisture problems	1
mistik construction, not plywood	1
townhouses	1
floor tiles	1
unbreakable windows	1
better foundations	1

22. Check the following items which you feel are important.

	Very Important	Important	Not Important
better water supply and waste disposal	39	3	
new school	38	3	
community policy	22	18	
community college centre	34	4	
firehall	33	7	
arena	24	16	1
better roads	40	8	
playgrounds	28	11	1
community hall	25	12	4
houses close to lake	4	9	19
community garden	8	12	8
new band offices	27	9	4
central commercial complex	27	11	1
bridges	28	10	1

23. From the following list check off the 5 most important items. Check 5 only.

	No. of Responses	Percent
better waste disposal	31	15.0
access to lake	0	0.0
fire hall	15	7.3
arena	22	10.6
better roads	31	15.0
road to Jenpeg	7	3.4
better water supply	36	17.5
new playgrounds	8	3.9
new community centre complex	26	12.6

23. From the following list check off the 5 most important items. Check 5 only.

	No. of Responses	Percent
local control of resources	6	2.9
landscaping yards	4	1.9
bridges	20	9.7
	206	

24. List the most imoortant things which should be developed in Cross Lake.

	No. of Responses
high school (new school)	21
arena	13
vehicle bridges	12
roads	9
shopping centre	9
recreation facilities	9
nursing home	8
complex	8
child care centre	6
waste disposal	6
more T.V. channels	5
bank	5
running water	4
playgrounds	4
new hall	4
garbage pick-up	4
indoor plumbing	2
parks	2
tourist camp	2
dump	1
friendship centre	1
water levels	1
parking lot	1
NCCC	1
landscaping	1
drive inn	1
hospital	1
firehall	1
gardening	1
use of resources	1
hotel	1

25. Check the following items which you feel are important.

	Very Important	Important	Not Important
continue trapping	29	9	1
increase sawmill production	20	13	1
local outreach office	11	21	2
more commercial fishing	25	12	1
more tourist development	9	13	7
local cooperatives	15	11	5
mining development	9	5	8
band control of business	30	10	

26. What issues do you feel the community should try to resolve?

	No. of Responses
new school	7
vehicle bridges	6
better roads	5
education	3
economic development	3
new/better store	3
better community involvement	2
alcohol abuse	1
juvenile delinquency	1
garbage	1
water level	1
better recreation facilities	1
sports complex	1
better communication between band members	1

27. Are you satisfied with the local ferry system?

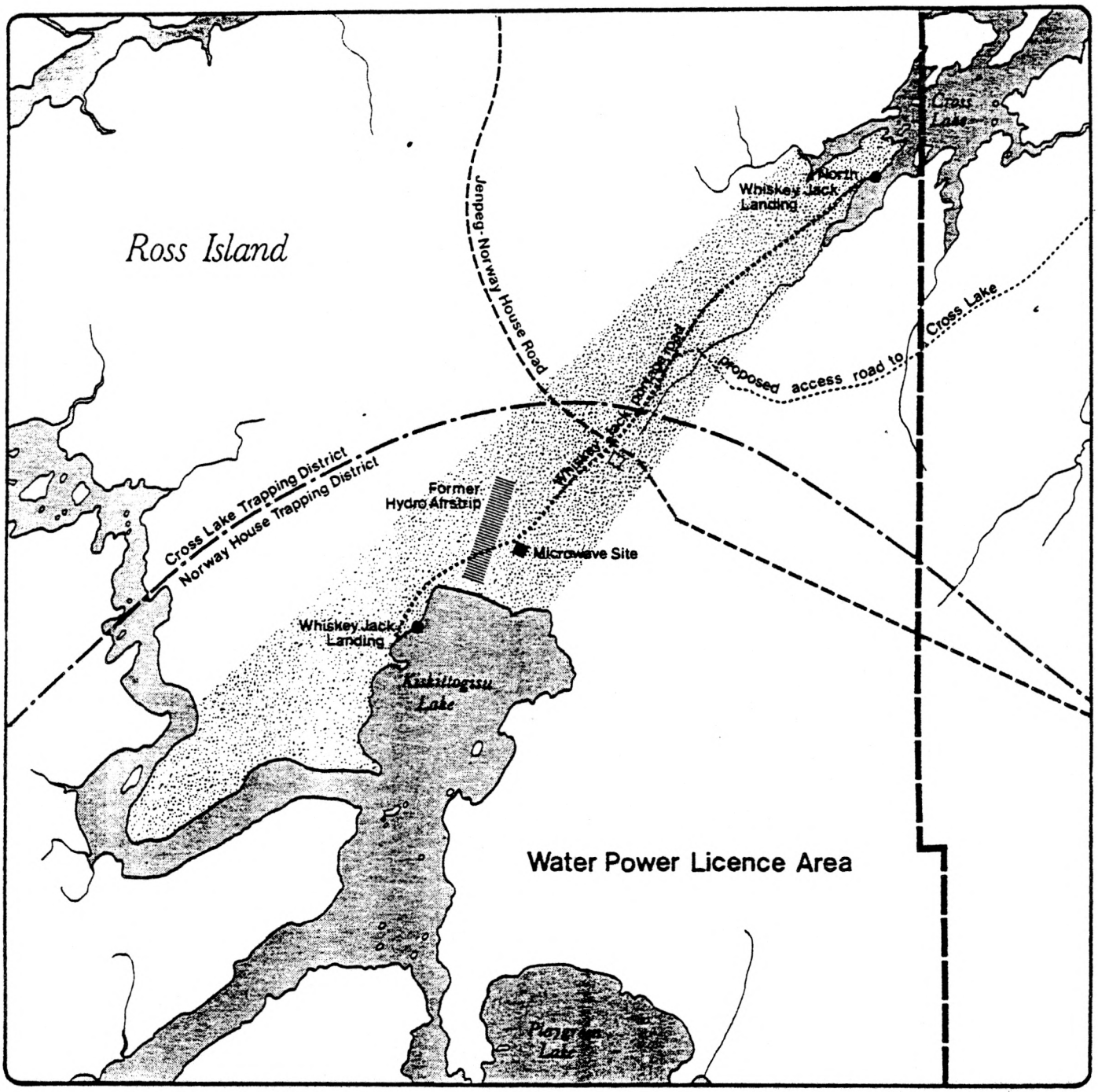
yes 24 responses
no 19 responses

28. Are you satisfied with the Whiskey Jack Landing?

yes 23 responses
no 17 responses

29. If a band operated complex was built, would you shop in this complex?

yes 42 responses
no 0 responses



Proposed Land Selection Area (B.C.R. 276-048-79)
General Permit 0467 Paupanikis

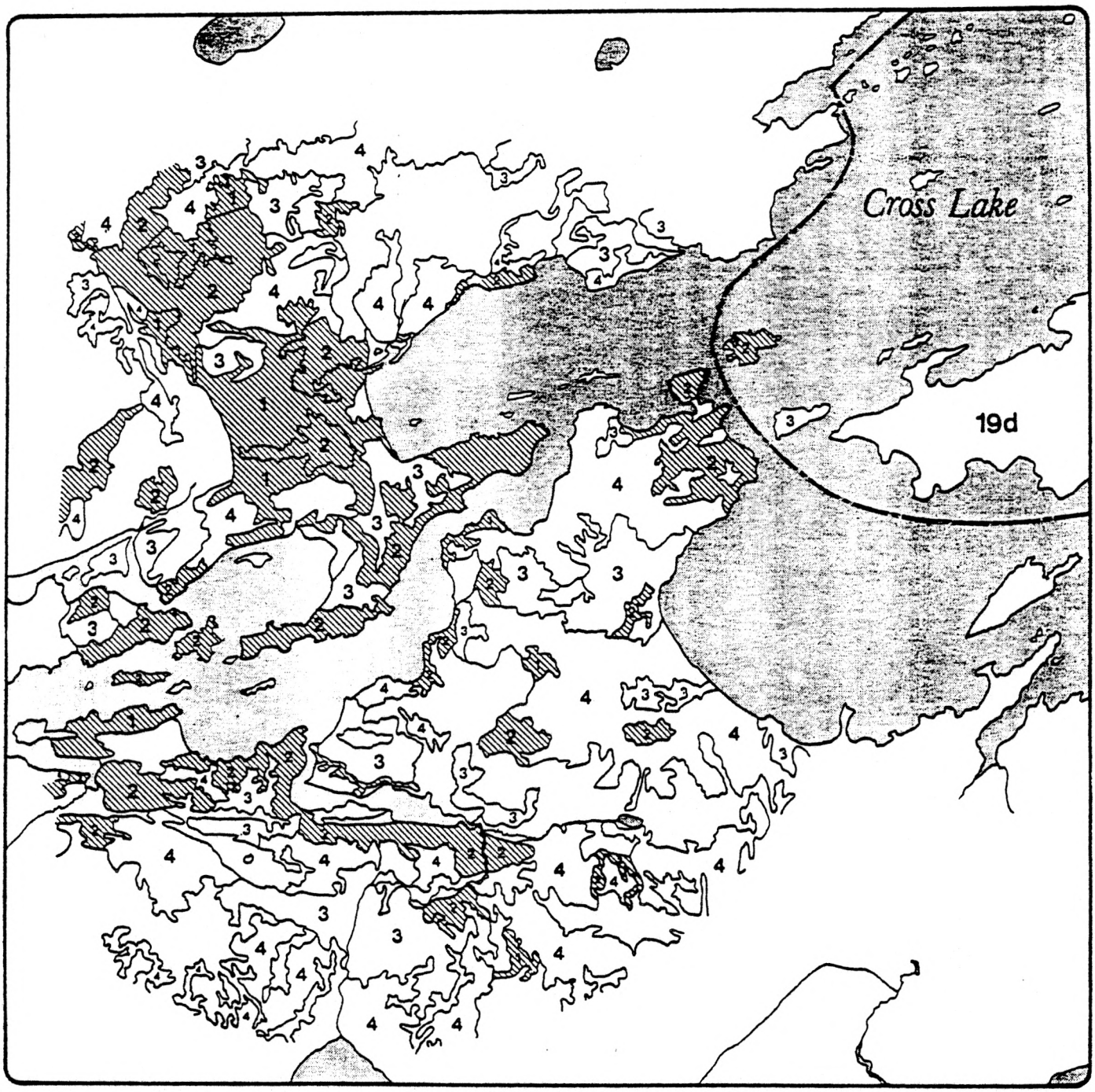
Whisky Jack: Land Use Commitments

FEET 1000 2 3 4 One Mile
METRES 500 1000 1500

for the Cross Lake Band of Indians & Dept. of Indian Affairs by Hildermon Farr Willy & Associates

Cross Lake Planning Study

Appendix 2



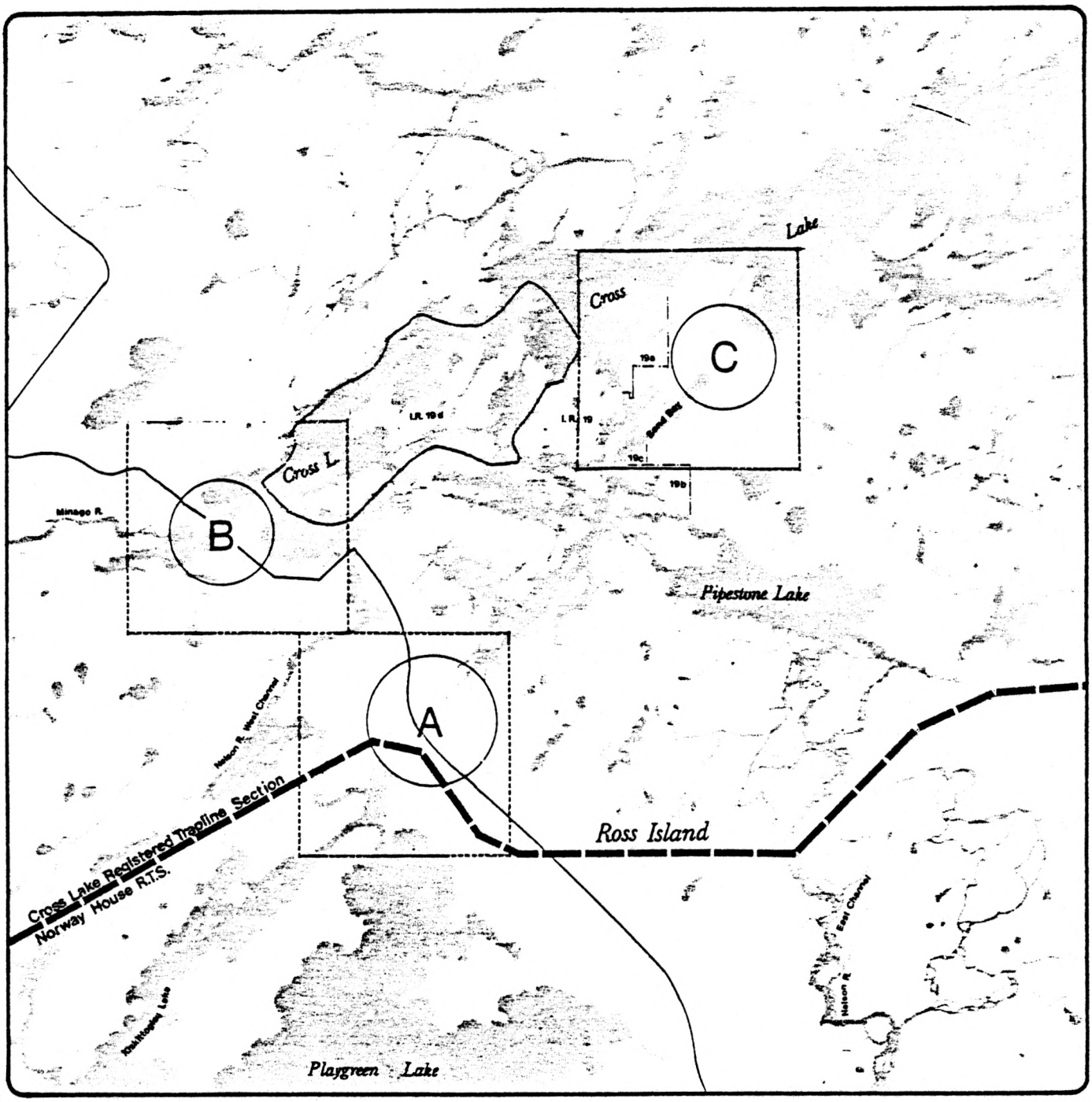
Land Capability: 1 Moderately High 3 Moderately Low
2 Moderate 4 Low

FEET 1000 2 3 4 One Mile
METRES 500 1000 1500

Minago River: Resource Analysis

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Halderman Fear Wiltty
& Associates

Cross Lake Planning Study



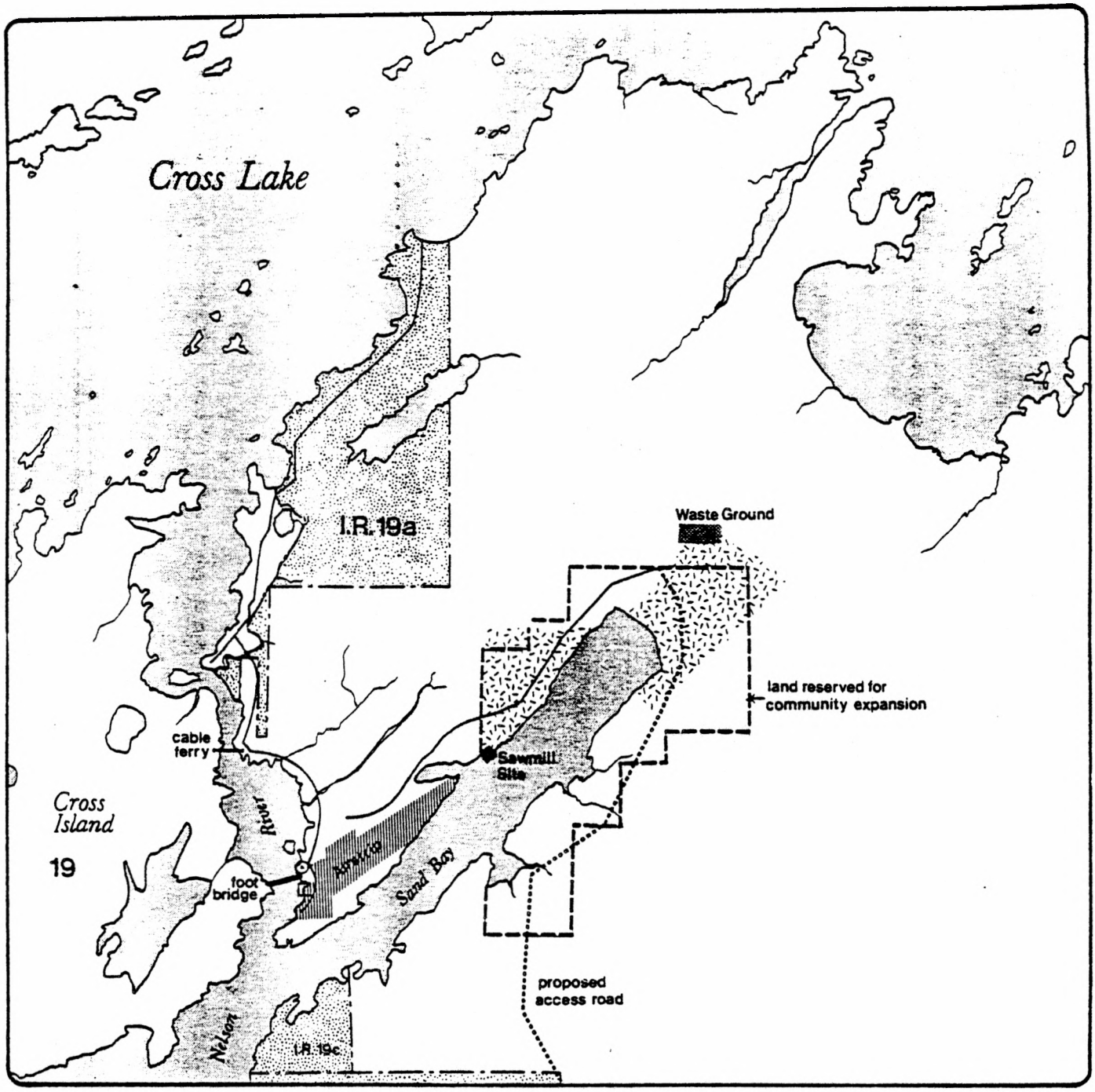
A Whiskey Jack
B Minago River
C Sand Bay

Proposed Land Exchange Areas

MILES 0 1 2 3 4 5
KILOMETRES 0 1 2 3 4 5

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Farr Witty
& Associates

Cross Lake Planning Study



cut over by Cross Lake Community Council

Ferry Water Lot

Warehouse, J.DRAM General Permit

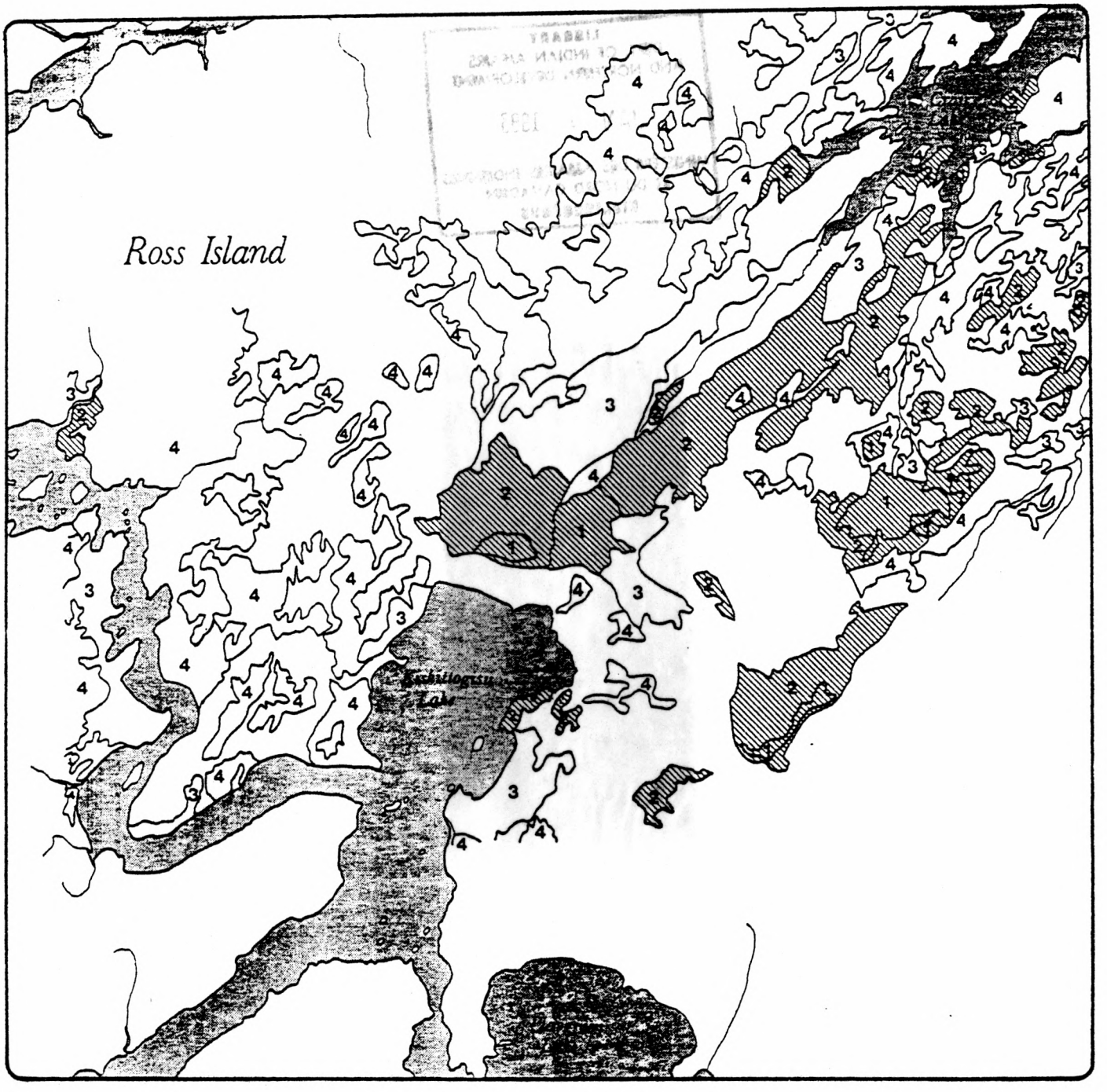
FEET 1000 2 3 4 One Mile

METRES 500 1000 1500

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Peir Witty
& Associates

Sand Bay: Land Use Commitments

Cross Lake Planning Study



Land Capability: 1 Moderately High 3 Moderately Low
2 Moderate 4 Low

FEET 1000 2 3 4 One Mile
METRES 500 1000 1500

Whiskey Jack: Resource Analysis

for the
Cross Lake Band of Indians
& Dept. of Indian Affairs
by
Hilderman Peir Witty
& Associates

Cross Lake Planning Study