

ECONOMIC SURVEY
BLACKFOOT INDIAN RESERVE

Resources & Industrial Division

DECEMBER 1968

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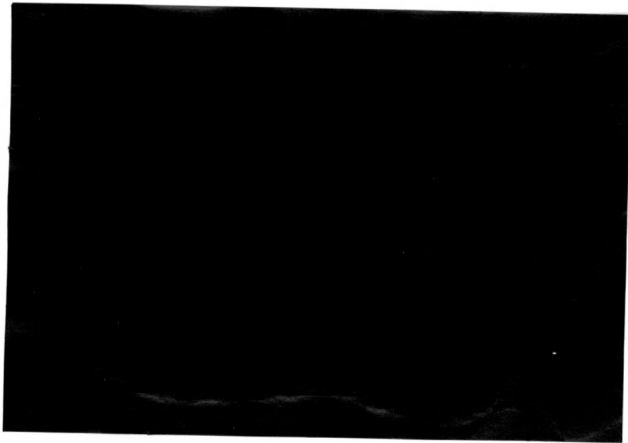
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Resources & Industrial Division

ECONOMIC SURVEY
OF THE
BLACKFOOT INDIAN RESERVE



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Comments on
Economic Survey, Blackfoot Indian Reserve
1968

At the request of the Indian-Eskimo Economic Development Branch,
the report on this survey prepared by Frank E. Price and Associates
Ltd. was reviewed in respect to mineral resources.

Oil and Gas

Only little over one page of text (page 37) was devoted to this
resource, summarizing briefly the wells drilled, the acreage under
permit or lease, the revenues generated for the Band, and prospects
for gas development. Surprisingly there is no mention of the potential
for a gas distribution system for the town of Gleichen and a part of
the reserve. This potential was investigated and reported upon
favourably some seven years ago, but was not proceeded with. I
believe the potential market still exists, and the Pure Blackfoot G-10
well is still uncommitted to a market.

6
Should be
6-10

Coal

Another page of text (page 38) has been devoted to summarizing the
coal prospects. This mentions only the report by the Research Council
of Alberta of 1966-67. There is no mention of the survey and mapping
of the coal occurrences by me in June 1960, and the drilling carried
out by Alberta Coal Company at that time which provided some information
on the overall coal potential of the reserve and delineated an open
pit for the local use of Band members. This pit was opened up by the

Band at little cost in 1960 and was a source of fuel for those who took the trouble to dig out the coal and cart it to their homes.

Conclusion

The report contains only a brief summary of oil and gas developments, and of the potential for coal. Some rather important developments have been left out.

This report on the economic development potential of the Blackfoot Reserve is incomplete as it stands, and should be supplemented by an adequate study on the mineral potential.



A.B. Irwin, Ph.D.,
Geological Engineer,
Head, Indian Minerals Section.

The Chief and Council
Blackfoot Indian Band,
Gleichen, Alberta

December 1968

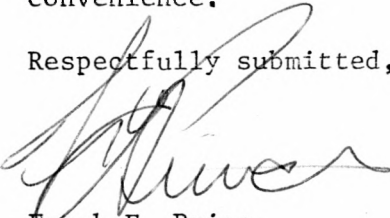
Gentlemen:

We are pleased to present to you our report "Economic Survey of the Blackfoot Indian Reserve." This report was commissioned by the Department of Indian Affairs and Northern Development with the agreement of the Blackfoot Band Council. It covers the principle areas of social and economic development as they apply to people of the Blackfoot reserve.

You will note from the report that the Blackfoot Band possesses in both her human and physical resources substantial potential for development. The extent and the pace of development is largely dependent upon the Blackfoot people themselves and their leaders as represented by the Band Council. While external resources will be necessary to make possible the development of all the opportunities available the principle ingredients of a development program must be the active participation and involvement of the people of the Reserve.

The objective of economic development must be to improve the social and economic life of the members of the Blackfoot Band. We believe that the Blackfoot Band should take immediate steps to develop with its people the substantial potential that presently exists. The steps that might be taken in this regard are outlined in the recommendations of the report. We would be pleased as well to have an opportunity of discussing all or any part of the report with the council or its committees at your convenience.

Respectfully submitted,



Frank E. Price

FEP/1b

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ECONOMIC SURVEY OF THE BLACKFOOT RESERVE

Introduction

This evaluation has been undertaken to investigate the economic development potential of the Blackfoot Reserve in Alberta and to identify specific development opportunities.

The study consists of an inventory of all the social and economic resources of the Reserve, an evaluation of these resources and those of the surrounding area, and an outline of specific primary and secondary commercial undertakings that might be developed for the benefit of members of the Band.

Based on the evaluation of the resources of the Reserve and area, a number of specific recommendations are made as to how the economic and social environment of the Reserve might be improved in order that greater economic opportunity might result.

Summary

Although the Blackfoot Reserve gives the impression that its economic potential is limited, we believe we have succeeded in establishing that the Reserve's resources and the development opportunities based on those resources, are quite substantial. We have suggested a number of ways in which the economic activity of the Reserve can be stimulated to the benefit of the Band. These include:

- undertaking an extensive agricultural program involving 100 farm families and ranchers
- application of revenue from income from farm leases to corrective economic development programs.
- proposals for the establishment of a number of retail and service outlets which, based on total indicated purchasing power on the Reserve, could be established by and for Band members.
- the development of a tourist and recreation area which could be a "core" recreation facility. A suitable area exists at the east end of the Reserve while a lake to the west, adjacent to the Reserve, also warrants consideration as a recreation project.
- the indication that long term employment benefits will arise from industry attracted to the Reserve or developed by the Band. Such industry would also stimulate economic activity on the Reserve.

- propose the establishment of an Economic Development Corporation which would co-ordinate financing and facilitate economic expansion on the Reserve.
- identification of the social problems confronting Band members living on the Reserve and recommendations designed to develop community relationships which will enable Band members to better relate to the non-Indian society
- Facilitate the transition from existing life on the Reserve and the social environment found elsewhere.

These projects and proposals are considered essential to provide for a better way of life for the Blackfoot Indian and a higher standard of living.

The new approach to social development proposes the expansion of the community planning program and the development of the facilities to the level found in any small centre of 2,500 people in western Canada. Involvement of Indians in the community development process and the provision of social facilities, will be an essential ingredient. This is part of the process of social development which is needed to assist the Blackfoot Indian to relate to the surrounding area and to the social environment of the non-Indian world. This is important whether he remains on the Reserve or whether he seeks economic and social opportunity elsewhere.

Recommendations

It is essential that the Blackfoot people seriously look at their potential and take steps now to exploit the potential that does exist. To wait longer would be to deny to those living on the Reserve the benefits of productive development.

In order to accomplish the short and long term objectives outlined in the report, it is recommended that the following steps be taken:

1. The agricultural potential of the Blackfoot Indian Reserve should be developed immediately, based on a program originally outlined in the agricultural evaluation of the Reserve. Control of Indian farm land - a necessary step in this program - has already been initiated by the Band Council.
2. The establishment of a "Economic Development Corporation" to facilitate the financing of development projects on the Reserve.
3. The channelling of a substantial portion of the Band funds into economic development programs.
4. That a specific feasibility study be done to facilitate immediate development of commercial enterprises to service the reserve and the surrounding area.
5. The expansion of the physical community development program and related community facilities.
6. Consideration of the development of tourist and recreation facilities in the "Buffalo Paddock" area on the Reserve and investigation of other possible tourist developments.

7. The establishment of a well organized and financed industrial development program to develop industrial employment opportunities on the Reserve.
8. A three phase social development program should be undertaken immediately, this would involve:
 - a general adult education upgrading program
 - a technical training for adults in specific industrial and commercial skills
 - a social development program to assist the potential worker and his family to relate to his environment.
9. An early investigation of the coal reserves on the Reserve and consideration of the possibility of the establishment of a steam power generating plant based on these reserves.
10. The present approach to Band financing should be changed as follows:
 - funds earned by the use of Reserve resources should be applied to further the economic growth of the Reserve.
 - funds for current operating purposes should not be drawn from capital reserves.
 - it should be a basic objective of the Band to operate on a balanced budget basis, ending the practice of dissipating financial reserves.
 - the present practice of lending Band funds to individual Reserve members should be reviewed and ways sought to reduce or eliminate the existing debt load.

CHAPTER I

THE RESERVE

Location and Description of Reserve

The Blackfoot Indian Reserve is located in southern Alberta about 50 miles east and slightly south of Calgary. It is situated in Townships 22 and 23 in Census Division No. 5. The nearest community of any size is Strathmore, about 25 miles northwest of Gleichen, the largest community adjacent to the Reserve.

The Trans Canada Highway and the CPR main line both run east and west along or near the northern boundary of the Reserve from Bassano to the east to Gleichen to the west, a distance of about 25 miles. The CPR also runs through the western part of the Reserve for a further 10 - 12 miles.

The Bow River runs through the Reserve and is dammed at the eastern edge to form a large reservoir. There are small lakes in the northwest corner which are part of the western irrigation district. The Reserve is generally flat with few trees and little bush cover. It is suited to farming and ranching.

The Reserve is roughly rectangular in shape, extending 45 miles east to west and about 10 - 15 miles in depth. It contains approximately 172,000 acres of land.

The major population centre on the Reserve is adjacent to the Town of Gleichen, 1 1/2 miles south of the Trans Canada Highway. Other communities in the area are Bassano at the east end, Strathmore to the west and Cluny.

Historical Background

The Blackfoot Reserve was established in 1877 through signing of a treaty between the Canadian Government and the Blackfoot tribe at Blackfoot Crossing. Population of the Reserve at that time was about 1,000.

The Reserve contained coal and also lay along the route of the railway. It was needed in part, for right-of-way and was also desirable for colonization. As a result, Reserve land was sold for over \$2 million which was expected to look after the Band's needs "in perpetuity."

Part of the remaining Reserve land was subsequently surveyed and agriculture introduced on the quarter sections of land allotted to many families.

Economy of Reserve and Surrounding Area

The Reserve

The economy of the Blackfoot Reserve has been based in the main, on agriculture, and casual employment, mainly agricultural, in the surrounding area.

The Reserve has 172,000 acres of potentially productive land. Of this, 52,000 acres are suited for cereal growing and a further 120,000 acres for ranching. Nearly 24,000 acres of ranch land could also be used for cereals. Soil conditions are fair to good with long term yields ranging from 12 to 20 bushels of wheat per seeded acre.

Range land can carry up to one animal unit (one cow and one calf under six months or 5 ewes) per 20 - 40 acres of land.

Rainfall in the area is generally adequate, averaging about 13.5 to 15 inches per year. The growing season runs about 115 days and frost is thus not a hazard to cereal production.

Indian participation in farming on the Reserve was substantial before 1940 but has declined steadily since.

Weeds became a problem on the Reserve. In part to offset this problem, a non-Indian leasing program was begun in the late fifties. It was also hoped that half the lease income would be set aside annually for five years and would result in sufficient funds being available for Indian land holders to resume farming.

This program did not work and only a few Indians continue to farm. The balance of land is leased. Lease income has provided a source

of income for those fortunate to be land holders but only provided for limited returns for Band members as a whole.

Land tenure and use on the Reserve has been a problem which has prevented the Band from achieving full value from Reserve lands. Income from land has been channelled into non-productive uses.

There is one formal grazing lease approved by the Indian Affairs Branch for 11,250 acres for a period April 15, 1969 to April 15, 1973, at \$8,000/year for 312 head. Any additional cattle are charged at \$4/head/month.

All other grazing leases are on a year to year basis and approved locally by the cattle committee. In all, Indians farm 9,700 acres of Reserve land and 27,000 acres are leased to white farmers.

An irrigation project on the Reserve involved damming the Bow River near the eastern edge of the Reserve. Water was drawn from the water reservoir for the project and some canals were dug near Gleichen.

There are three coal finds on the Reserve but none are being mined at present.

A number of oil or gas wells have been drilled on the Reserve. The only producing well has been capped due to lack of an outlet. It might, however, provide an adequate source of gas for an industrial enterprise. Gas has recently been discovered near the Reserve. Additional exploration is underway at present in the area and much of the Reserve is under lease or permit to

major oil companies.

No merchantable timber exists on the Reserve and a very limited amount of beaver and muskrat trapping takes place.

Economy of Region

The Blackfoot Reserve is located in an area with an economic base almost entirely sustained by agriculture. A limited amount of commercial activity exists, mainly to serve the agricultural economy and those engaged in it. A few allied service industries operate in the area and of course, a number of retail outlets.

There are no large industrial or commercial centres within a reasonable travelling distance. The nearest are Calgary and Medicine Hat. Neither is near enough to be within easy employment commuting distance.

The population of Census Division 5 in which the Reserve and region are located, was 38,115 according to the 1961 census. Income levels are low. Of the roughly 10,000 with income, 5,240 or 52% have incomes below \$2,000. Only 168 earned over \$10,000.

The labor force is predominately male. The total number in the labor force was 13,000 in 1961 and of this, 10,600 or 80% were male. Average income of the labor force was \$2,649 for males and \$1,765 for females. There were 9,997 homes in the area and 4,086 farms.* Farm sales ranged from \$1,200 to over \$25,000 per farm.

* Commercial Farms

According to the 1961 census, there were 367 retail outlets, 143 wholesale operations and 182 service operations. There were 28 manufacturing establishments with production value of \$1,763,400. This was an average output of about \$63,000.

The value of retail sales was \$76,000 per outlet or a total of \$2,181,200. Per capita sales were \$2,160 for the 13,000 resident of the area.

The nearest service communities are Cluny, Gleichen and Strathmore (25 miles from the Reserve).

Employment potential afforded by the existing industrial and commercial activity in the area appears minimal. There are only 725 establishments in all in the region. None would offer much in the way of job potential. Retail stores account for over half of this total. Average sales of \$76,000 suggests employment of an occasional clerk to supplement proprietor-manager operations. Similarly, wholesale and manufacturing employment would be minimal. Wholesale establishments have a low labor input while manufacturing operations in the \$50-75,000 range would employ only a few workers each at best.

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POPULATION - CENSUS DIVISION #5

<u>Total Population:</u>	38,115
Male	20,266
Female	17,849
Rural - Farm	16,725
Non-Farm	15,658
Urban	5,732

Age Groups:

0 - 9	9,225
10 - 14	4,103
15 - 19	3,296
20 - 64	18,361
65 and over	3,130

Income:

15 and over with income	9,921
15 and over without income	3,487
Under \$2000	5,240
\$2000 - \$2999	1,312
\$3000 - \$3999	1,391
\$4000 - \$4999	920
\$5000 - \$5999	351
\$6000 - \$9999	539
\$10,000 plus	168

Source - D.B.S. - 1961 Census.

Labour Force:

Total	13,087
Male	10,693
Female	2,394
Wage earners	9,921

Earnings:

Less than \$2,000	2,908
\$2,000 - \$2,999	1,191
\$3,000 - \$3,999	1,208
\$4,000 - \$5,999	903
\$6,000 and over	263

Average - Male	\$2,649
Female	\$1,765

General Data:

Housing (Numbers)	9,997
Autos (Estimated No.)	7,206

Agriculture:

Number of farms	4,333
Capital Value	181,270.4
Sales - \$1,200 - \$2,499	253
\$2,500 - \$4,999	532
\$5000 - \$9,999	711
\$10,000 plus	482

Source - D.B.S. - 1961 Census

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COMMERCIAL & INDUSTRIAL ACTIVITY

Retail Trade - (Store Sales to Public)

Stores	367
Sales	28,181.2
Average/Store	76

Wholesale: (Sales to Stores and Services)

Outlets	143
Sales	14,598.3

Services:

No. of Locations	182
Sales	4,493.6

Manufacturing:

Establishments	28
Selling Value of Shipments	1,763.4
Value Added	876.5
Employment	No Figure Available

Source - D.B.S. - 1961 Census

CHAPTER II

THE PEOPLE

As at January 1, 1967, the registered population of the Blackfoot Band was 1,933. Of this, 981 were male and 952 female. In all, 1,821 resided on the Reserve while 112 lived elsewhere.

This data is based on Indian Affairs Branch records for the year 1966. According to Band records, by June 1968, total Band population reached 2,257, of which 374 lived off the Reserve. The off-Reserve population included 90 children attending residential schools.

Population distribution by age group and sex as at January 1, 1967 is shown below:

Blackfoot Indian Reserve
 Population Distribution
 By Age Group & Sex

<u>Age Group</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Percent</u>
0 - 4	208	210	418	21.6
5 - 14	289	267	556	28.8
15 - 19	104	107	211	10.9
20 - 24	86	98	184	9.5
25 - 34	111	98	209	10.8
35 - 44	74	76	150	7.8
45 - 54	42	48	90	4.7
55 - 64	34	32	66	3.4
over 65	<u>33</u>	<u>16</u>	<u>49</u>	<u>2.5</u>
Total	981	952	1933	100

As for most Indian Reserve populations, the under 15 group represents more than 50% of the total population (50.4). The labor force (20 - 64) accounts for 36.2% of the entire Band population. While undoubtedly some of the 15 - 19 age group are employed, it may be safely assumed that the labor force is drawn from less than 40% of the Band total population.

Population Background and Analysis

The Band treaty records dating back to 1890 indicate that the Blackfoot population at that time was 1,750 people. If population trends for the intervening years, from the time the Reserve was formed in 1877 to 1890, follows other Reserves, it was probably 1,400 - 1,500 when the original treaty was signed.

By 1920, out-migration and natural decrease had reduced the population to 684. Since then, the surplus of births over deaths and an insignificant out-migration has resulted in a steady increase. This increase has accelerated in recent years, particularly since the end of World War 11 and has far outstripped the rate of growth of the non-Indian population in Alberta, a relatively fast growing province in Canada.

The following table developed for the Survey of Housing of the Reserve in 1967, shows this:

<u>Rate/1,000 persons</u>	<u>Blackfoot Reserve</u>	<u>Alberta</u>
Infant Mortality	35	24
Deaths	7.25	N/A
Births	50.6	24
Net Increase Rate	43.0	20.7
Net Fertility (per 1,000 women)	251	135.9

Total Population In Group	Male		Age Group	Female		Percent of Total
	Population			Population		
418	208		0 - 4		210	21.6
556	289		5 - 14		267	28.8
211		104	15 - 19		107	10.9
184		86	20 - 24		98	9.5
209		111	25 - 34		98	10.8
150		74	35 - 44		76	7.8
90		42	45 - 54		48	4.7
66		34	55 - 64		32	3.4
49		33	Over 65		16	2.5

POPULATION STRUCTURE - BLACKFOOT RESERVE
January 1, 1967

Since 1950, the Reserve population has been growing at a rate of 4.3% per annum. Population had reached about 1,200 by 1950 and had grown to 1,650 by 1960 - an increase of 37.5%.

Indian Affairs Branch records show 1,821 on the Reserve as at January 1, 1967 and a total Blackfoot population of 1,933, including 112 off the Reserve. This represents an increase of 287 since 1960.

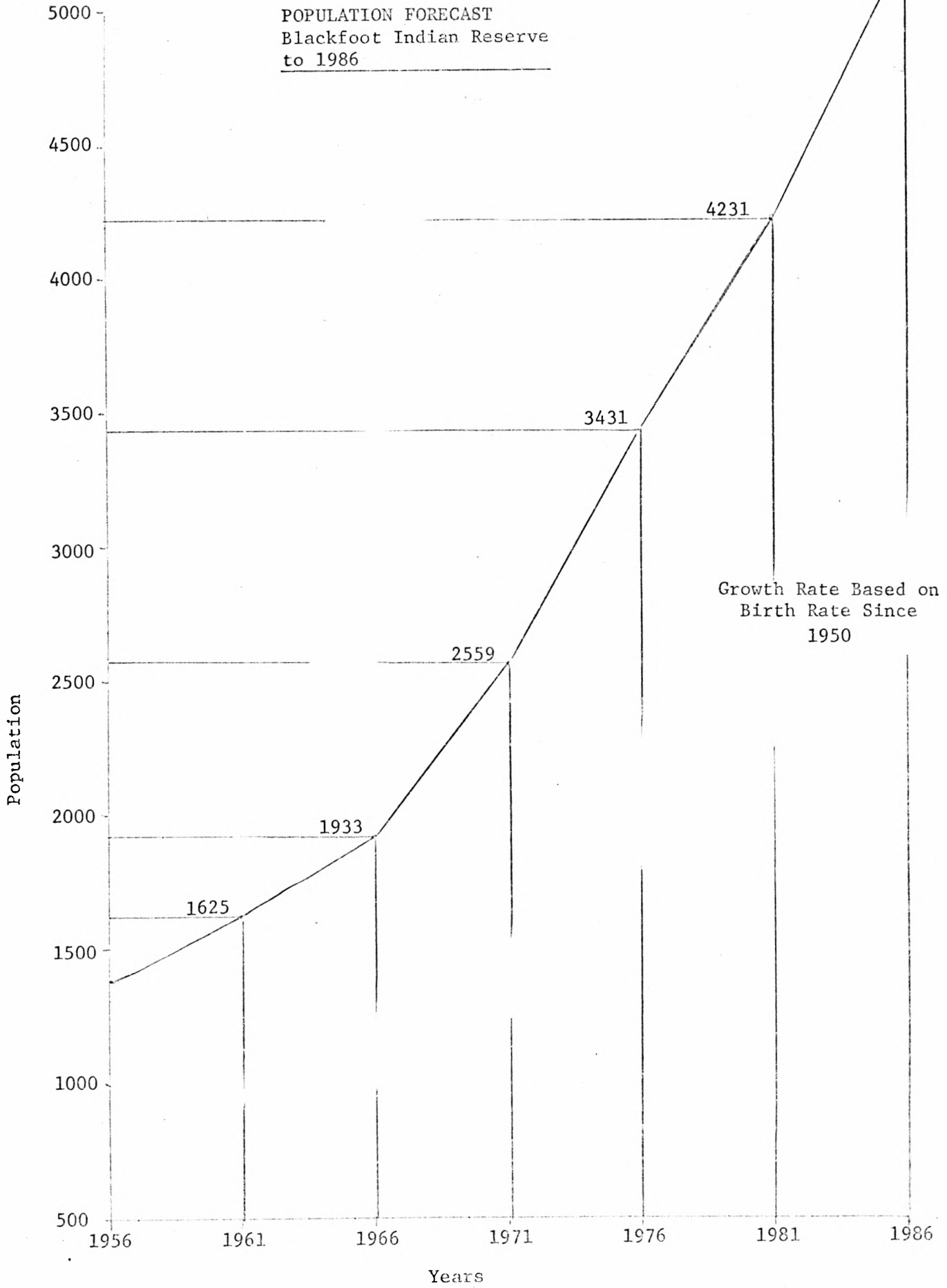
Population Projections

An important factor in the evaluation of any Reserve is the future growth of population. At Blackfoot, the rate is rapid. Birth rate of 50.6/1,000 population compared with Alberta's 24/1,000 indicates a continuing rapid growth. This high rate is due mainly to the large proportion of the population being in the high fertility, longer life expectancy age groups compared to the province as a whole.

The high birth rate (95 in 1966) today is based on the increasing number of live births in the 1945 - 54 period who, in turn, are producing families today. There were 543 in the 20 - 45 age group, the ages responsible for most family formation.

Based on the rate of population increase estimated in the housing survey (4.3%) population growth would be:

1969 -	2354
1971 -	2559
1976 -	3431
1981 -	4231
1986 -	5222
1991 -	6453



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A mathematic curve using the 1945 - 1967 population growth as a basis, shows the rapid increase.

The only factors that could affect this rapid growth rate are substantial migration to or from the Reserve and a decline in the birth rate. With the introduction of simpler methods of birth control there may be some decline.

The current high birth rate places a very heavy economic burden on the earning group on the Reserve - parents and others in the labor force. In 1967, less than 33% of the total population was between the ages of 20 and 54, the most productive years. Only 313 of a total population of 1,933 were males.

Child care removes most women from the labor force and as a result, 300 men were supporting over 1,600 people as well as themselves.

This situation is a basic cause of low incomes and living standards on Reserves and coupled with inadequate education and training, limited employment opportunity and low wages, maintains this unfortunate cycle.

Recognition of this basic condition and devising of programs to interrupt this endless cycle must be a fundamental consideration of any programs aimed at improving the quality of life of the Blackfoot Indian.

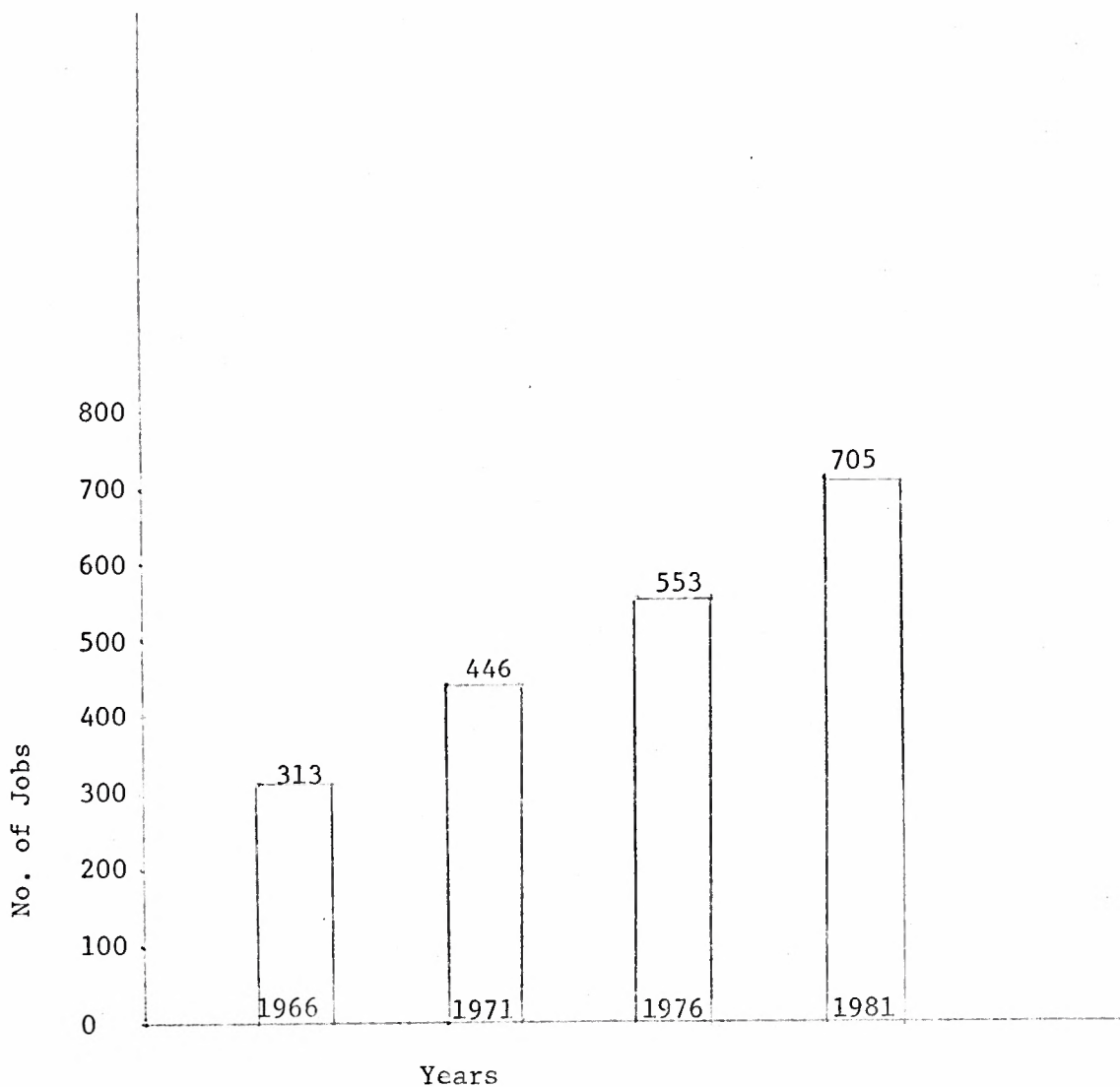
Equally serious as the existing situation is the effect of poverty conditions in the home environment has on children. In such conditions, the poverty cycle is almost impossible to break.

JOBS NEEDED TO PROVIDE

FULL EMPLOYMENT

FOR MEN

1966 - 1981



Although Indian women seek education and opportunity for their children, there is little incentive possible when many of the basics of life are lacking.

Summary of Interests and Attitudes and Abilities of the Blackfoot People

As part of the economic review of the Blackfoot Reserve, a survey of interests and abilities of the Blackfoot people was conducted using a questionnaire specially prepared for this purpose.

A representative sample of each designated age group of men and women was sought. A good sample of both was obtained as shown:

	<u>MEN</u>				<u>WOMEN</u>			
	16-25	26-35	36-55	over 55	16-25	26-35	36-55	over 55
Population	190	111	116	34	205	98	124	32
Replies	20	25	34	2	18	18	21	4
Percent	10	22.5	29.3	6	8.7	18.3	16.9	12

Percent of total population was 15.3% for the age groups concerned.

Details of the survey are contained under the following headings:

Education-

Of those surveyed only 21 had grade 6 education or below. Ninety-four possessed grades 7 to 10. Twenty-six persons were in the category grades 11-12 inclusive.

Special Training -

Forty-four persons stated that they had in the past, received some form of special training. Experience in mining,

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baking, railroad work, farming, nursing, business and sewing were the most numerous.

Sixty-four persons indicated that they would like to receive special training. The most popular vocation for women was seamstress. Some 18 women indicated this interest. For the male population, there was no one activity which was particularly popular but the answers received seemed to indicate that the construction, carpentry and mechanical courses would be most popular.

Mobility of Labor

In all age categories, both male and female, mobility appeared to be no problem. People indicated they were prepared to travel to work. Thirty-seven men indicated they would be prepared to travel 10 miles, 4 indicated that 50 miles would be in order, 8 stated they would go 100 miles and 5 said that they had no objections to travelling even further than 100 miles. Naturally, the females were not so specific in their answers although 8 indicated that they did not mind travelling 100 miles to work.

Farming is the most preferred employment for male Band members as shown in the following breakdown of respondents:

Farm Work	41
Construction	5
Office Work	18
Carpenter	2
Mechanic	1
Ranching	7

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Most (72 of 81) male members indicated they are available to work full time.

Similarly, 41 of 60 women in the working age group stated they could work full time.

The women of the Band indicated preferences as follows:

Housework	24
Sewing	10
Nursing	10
Office Work	7

Time Employed

The employment pattern on the Reserve is indicated by the survey to be fairly inconsistent. Employment by age group is shown below:

	<u>Age Group</u>	<u>Months Worked</u>			
		<u>3</u>	<u>6</u>	<u>9</u>	<u>12</u>
<u>Men</u>	16 - 25	6	2	2	6
	26 - 35	3	8	2	8
	36 - 55	4	6	10	15
	No answer	13	16	14	29
<u>Women</u>	16 - 25	4	5	0	1
	26 - 35	2	0	0	5
	36 - 55	0	0	0	6

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For the number of men interviewed, full employment would have amounted to 972 man months. They found employment for over 600 man months during the year prior to the survey.

This pattern is somewhat better than many Reserves but is still little more than 60% of full employment.

Income

Annual income from employment of those interviewed is shown in the following table:

Earnings	<u>Age Group</u>			<u>Total</u>
	<u>16 - 25</u>	<u>26 - 35</u>	<u>36 - 55</u>	
Less than \$ 500	5	10	2	17
" " 750	1	5	3	9
" " 1,000	1	2	6	9
" " 1,500	-	-	2	2
" " 2,000	1	-	4	5
" " 3,000	2	-	2	4
Over 3,000	2	-	-	2

Thirty-five of the forty-eight responding, earned less than \$1,500 per year.

Most of those indicating their sources of income received their earnings from farming on the Reserve, trapping and general labor were other sources of income.

Off Reserve income was obtained from wood cutting, "working at a trade" and general labor (most).

Living Standards

The final section of the survey was devoted to life on the Reserve. Band members were asked about home ownership, adequacy, costs and whether they liked living on the Reserve.

Most Band members 26 and over, have their own homes. Of the total males responding in the over 25 groups, 77% owned their own homes. In this group, 57% also owned cars. In the 16 - 25 group, only 3 of 19 (15%) owned homes and 7 of 20 (about 30%) owned cars.

Homes were valued at anywhere from less than \$1,000 to \$4,000 - 5,000. Most were in the \$2 - 3,000 range.

Most, 51 of 76 responding or 67%, do not like their homes. This was particularly prevalent in the 16 - 25 group when 17 of 20 or 85% expressed dislike.

The same applied to responding women, although the percentage in the 26 and over groups disliking their homes was lower. In total, 37 of 60 expressed dislike (62%). In the 16 - 25 age group, all but 2 of 18 or nearly 90%, did not like their homes.

RESERVE RESOURCES AND ECONOMY

Introduction

The Blackfoot Reserve is similar to other Reserves in southern and central Alberta in that, except for agriculture, the primary physical resource potential is limited. The Reserve's land thus represents the most important primary resource. Other resources such as coal, oil and gas, are of limited proven value at present.

The Reserve has potential for development of other economic activity based in part, on agriculture and in part, through provision of services to people, both on the Reserve and beyond its borders.

Agriculture, primary resource and potential tourist and industrial activity has been reviewed in detail in this part of the study.

Agriculture

Description of the agricultural resources and activity on the Blackfoot Reserve and an evaluation of the agricultural resources of the Reserve has been conducted separately. The findings of the study of agriculture on the Reserve are contained in a separate report entitled "An Agricultural Evaluation of the Blackfoot Indian Reserve".

The summary of the agricultural resources and use evaluation are included in this report, however, in order to provide a complete description of the Reserve.

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The Blackfoot Reserve consists of 174,598 acres of brown and dark brown soils, 171,580 acres of which are potentially productive. Class II, IV, V and VI soils are described by the Alberta Soils Survey are found on the Reserve. The acreage of each, recommended use, and long term average yields, are shown below:

PRODUCTIVE SOIL CLASSIFICATION

Soil Class	Acreage	Recommended Use	Long Term Acre Yield
II	91,080	grazing	summer only--16 acres/AU* summer and winter--20-40 acres/AU*
IV	23,710	grazing cereals	less than 20/AU 10-12 bus/seeded acre
	4,900	irrigated alfalfa	3-5 tons/acre
V	39,490	cereals	12-15 bus/seeded acre
VI	12,400	cereals	15-20 bus/seeded acre

* AU - Animal Units = one cow and calf per season.

Climate - The rainfall in this area decreases from west to east so that the part of the Reserve around Bassano is generally drier than the more westerly parts. Long term average precipitation is as follows:

	<u>Gleichen</u>	<u>Brooks</u>
Summer rainfall	10.25 inches	9.48 inches
Winter snowfall	47.4 "	40.7 "
Total precipitation (ins. water)	14.99 "	13.55 "
Rainfall in June	2.70 "	2.26 "
Rainfall in July	2.02 "	1.49 "
Rainfall in August	2.05 "	1.82 "

Frost is not considered a hazard to cereal grain production and the growing season generally covers 115 days or better (using 29° F as a killing frost).

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Soils*

The Blackfoot Reserve has a total of 171,580 productive acres of brown and dark brown soils, geographically located east and south of Calgary. The eastern part of the Reserve adjoins the western boundary of the Palliser Triangle.

The soils map of Alberta divides the soils in the general area of the Reserve into 8 classes*. Four of these, (Classes II, IV, V, VI) are found on the Reserve and may be described as follows:

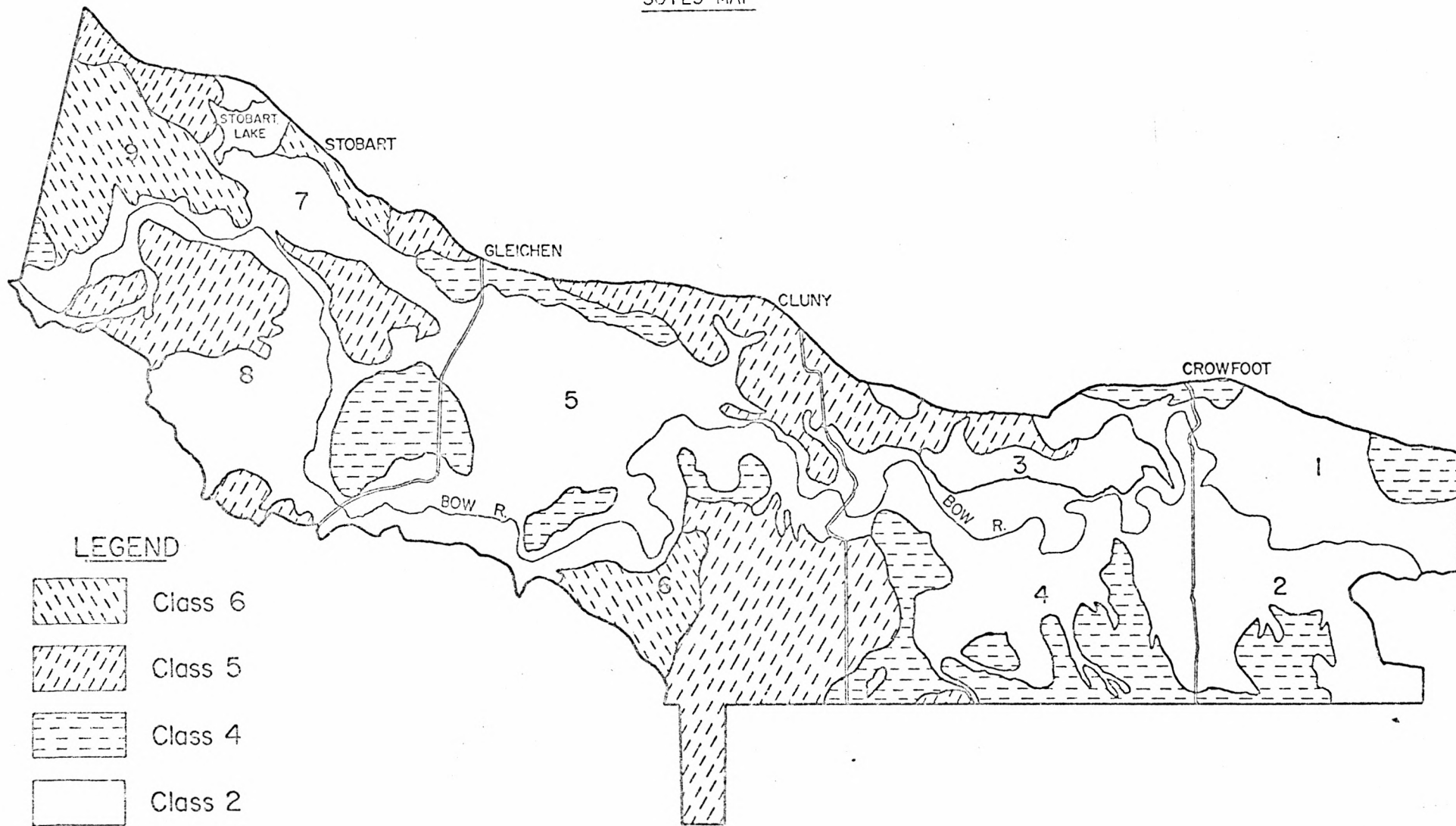
<u>Class II</u>	91,080 acres
<u>Use</u>	Fair to good pasture land - capable of supporting one animal unit** on 20-40 acres of land.
<u>Class IV</u>	28,610 acres
<u>Use</u>	Poor to fair arable land - produces less than 10-12 bushels of wheat per seeded acre on long term basis and is a marginal soil between the arable and pasture classes. A fair producer in years of high moisture and benefits from the use of fertilizer.
<u>Class V</u>	39,490 acres
<u>Use</u>	Fair to fairly good arable land - produces average of 15-20 bushels of wheat per seeded acre on long term basis.
<u>Class VI</u>	12,400 acres
<u>Use</u>	Fairly good to good arable land - long term average yields 15 to 20 bushels of wheat per seeded acre.

Detailed descriptions of soil productivity and a review of those soils requiring special attention, has been provided in the Appendix.

* See soils map overleaf

** Animal Unit - one cow and calf under six months of age, or 5 ewes (includes all forage requirements for one year).

SOILS MAP



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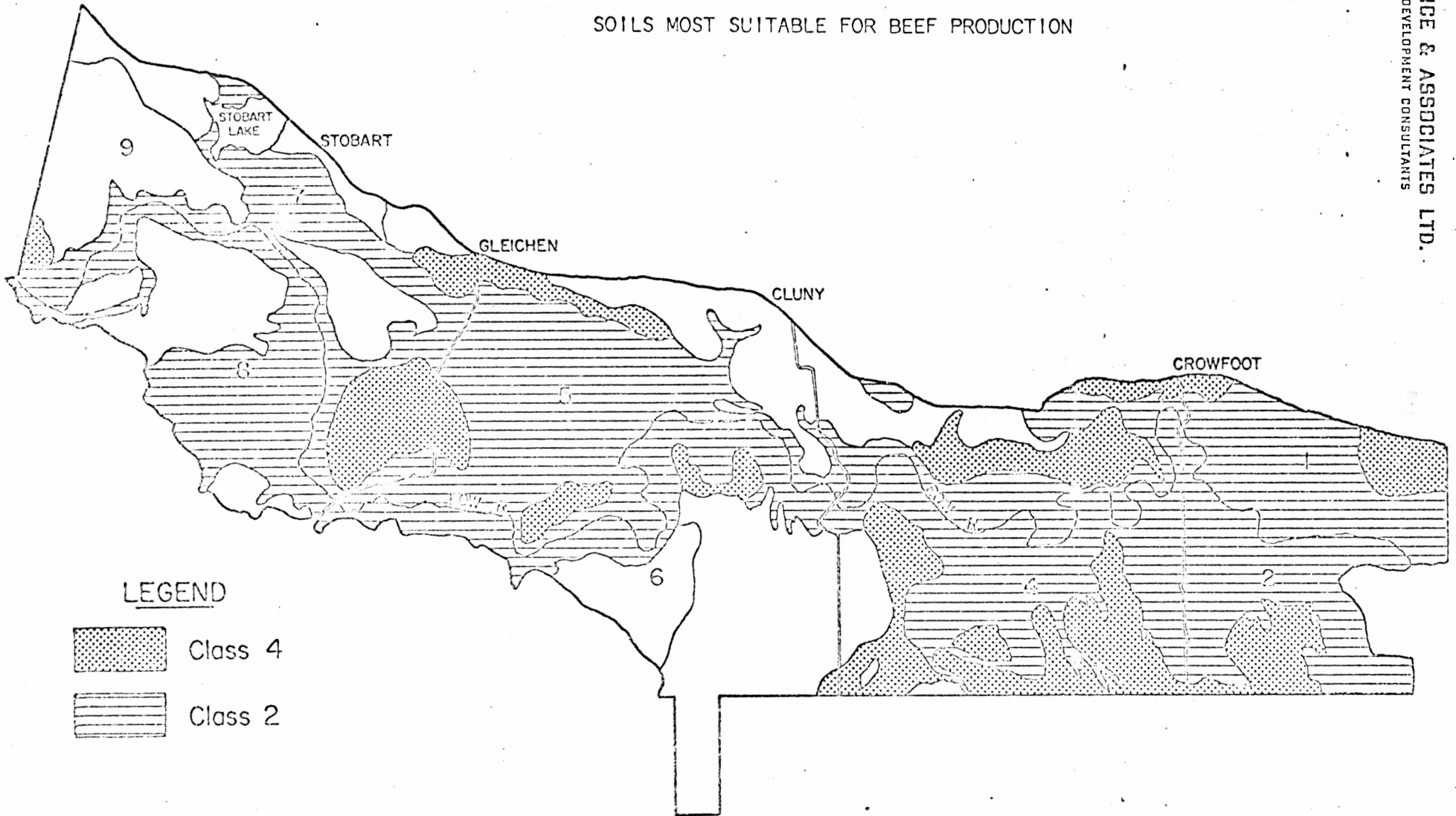
Distribution and Acreages of Various Soil Classes on Reserve

For purposes of analysis and discussion, the Reserve has been divided into 9 natural geographic areas as shown on soils map. Acreages of the various soils in each of these areas, together with the total acreage in each classification, is shown below:

Soil Classification

Area	II	IV	V	VI	TOTAL
1	11,180	2,200	-----	-----	13,380 acres
2	9,110	3,920	-----	-----	13,030 "
3	7,180	3,810	4,130	-----	15,120 "
4	13,670	8,360	2,340	-----	24,370 "
5	19,590	4,170	5,860	-----	29,620 "
6	7,530	1,120	12,790	4,050	25,490 "
7	8,750	4,690	4,250	1,300	18,990 "
8	2,610	340	2,800	7,050	12,800 "
9	11,460	-----	7,320	-----	18,780 "
Totals	91,080	28,610	39,490	12,400	171,580 acres

SOILS MOST SUITABLE FOR BEEF PRODUCTION



Evaluation of Revenue Potential

Revenue production on the Reserve depends on management and the selection of alternative enterprises and land use selected. The major decision rests with the use which will be made of Class IV land. Four alternative methods of development have been examined.

This evaluation has found that the use of Class II land for summer grazing supplemented by the use of 2,866 acres of irrigated land to produce winter forage, together with cereal production on the remainder of the land, including Class IV soil, will return the highest revenue to the Reserve. Following closely however, and producing only about \$9,000 less revenue, is the use of Class IV land for summer grazing supplemented by irrigated forage.

In view of the problems associated with cultivation of Class IV soil and the need to control erosion, the latter alternative could be the most practical use of land.

The annual contribution to gross revenue of the combination of enterprises and land use yielding the highest return to the Reserve, as described above, as well as the division of this revenue between cost of production and net return to Band and operator is shown below:

	<u>Beef Production</u>	<u>Cereal Production</u>	<u>Total</u>
Gross Revenue	\$531,815	\$1,215,448	\$1,747,263
Cost of Production	259,717	496,081	755,798
Net Revenue	272,098	719,367	991,465
Band Share	57,320	303,861	361,181
Operators Share	214,778	415,506	630,284

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Use of weed sprays and fertilizer could add an additional \$331,000 net revenue to the Reserve. Full development of irrigated land for alfalfa production would add a further \$30,000.

The number of residents who can participate in farming and ranching depends on the income requirements of the participants. Most important, however, is the requirement to sustain high fixed overhead costs in equipment and livestock. Generally, the larger the equipment used and the larger the unit operated, the lower will be the costs of production and the higher the income per unit.

An equitable fee to the Band has been found to be a 1/4 crop share for cereal production and \$10/Animal Unit for grazing.

Another and less complicated way would be to assess the land and charge a comparable cash rent per acre, varying it according to the productivity of each soil class. Collections from individuals on a % basis would then be unnecessary.

Details of revenue potential for beef, grain and combined production has been provided in the appendix to the report. Additional data is available in the "Agricultural Evaluation of the Blackfoot Reserve."

Land Use

Background

In the past, Indians have attempted to farm land on the Reserve. Prior to the 1940's, a fairly large number of Indians enjoyed a reasonable degree of success.

Two factors appear to have conspired to defeat Band members' efforts to farm on their own.

The first was the advent of the farm tractor. Mechanical equipment, unlike horse power, required power that used fuel not native to the Reserve, a fuel that had to be purchased rather than grown. The equipment also required repairs and repairs cost money. Money however, was in short supply.

The second factor that contributed much to the Indians' downfall in farming was the government program of delivery quotas. While non-Indians were usually able, through saving surplus income or through bank or other credit, to weather the periods of low income and high outgo, the Indian, deprived of adequate credit facilities and short on savings, fell by the wayside.

These two factors started a trend, a trend that is still continuing. It's effect on non-Indian society can be readily seen. Larger capital inputs, both fixed and working, and larger credit accomodation, have forced out small operators and have resulted in the larger, more economic, operations.

The overall result has been a large reduction in farm population and a migration away from rural areas.

The Indian, however, could not afford to consolidate. The Blackfoot Band initiated a policy of farm loans that, at best, could only postpone the inevitable demise of

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Indian agriculture. The limited amounts of money available through loans from the Band represented in the final analysis, a selective form of welfare with the land holder receiving a disproportionate share. The loans were too low to accomodate reasonable expansion to assure the ability to repay the loans.

Farm debt rose to heights beyond reason.

By reason of inefficient operation, partly brought about by inadequate financing and technical assistance, a new problem occurred. By 1959, weeds had gained a serious hold on the Reserve.

The suggested answer to this problem was to lease the land to non-Indians with the objective that they would correct the weed problem. A secondary objective of this program was that fifty percent of lease payments to the individual landholder would go to retire his indebtedness to the Band, the balance would be held in trust for five years so that the Indian would have a stake to start farming on his own again.

This program was doomed to failure. The fact that the trust requirements of the agreement were broken in the first year precluded the land-holder from having the financial ability to resume operations. The intervening five year period (1960-1965) tended to ensure failure rather than success. Equipment owned by land holders either was disposed of, was in a serious state of disrepair or had become obsolete. The result being that to re-establish Indian farmers would require greater capital input

than would have been possible even had the trust requirements of the agreement been kept. No program for expanded financing had been developed in the meantime.

A second factor compounded the problem further.

During the intervening five year period, many Band members who had never farmed, were allocated land and they joined the elite of the Reserve who received money for not working the land that belonged to all members. This created a difficult political situation for the Band Council.

The five year Indian withdrawal from agricultural production produced a side effect. It damaged the Indians' reputation and affected his ability to secure credit from any outside source. It was looked upon as a failure of Indian people and as proof that they could not cope with the technical and economic problems of agriculture.

The program of leasing to non-Indians was based on a false premise. First that Indians could not control the weed problem and secondly that the trust requirements could both retire debt, and provide a basis for re-establishment.

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Agriculture technology moves too fast today to accomodate a five year pause in Indian development. The previous program ignored the major requirements for successful Indian agricultural development:

- farms in large enough parcels to constitute economic units
- money in sufficient quantity to assure an opportunity of success.

The farm units in possession of Band members are generally small. This precludes adequate production to allow for repayment of borrowed capital. The allocation of further small units has further restricted the opportunity of those who want to farm from obtaining enough land to be a success.

SOILS AND LAND UTILIZATION MAP OF THE BLACKFOOT INDIAN RESERVE



Present Situation

Land is the major problem. To obtain enough land to be able to pay out loans for equipment and working capital is one of the major stumbling blocks to obtaining enough money to farm properly.

The Blackfoot Band has partially faced this problem to the extent that they have now taken control of Band lands and are considering allocation to members who will use the land, not lease it out as in the past. This first step is encouraging and could lead to total Indian agricultural production.

Two further steps are now essential:

1. To commit Band funds to finance farming.
2. To create a vehicle to assist in the financing of equity and working capital requirements of Indian people wishing to farm or ranch. A suggestion for such a vehicle will be found under the heading "Economic Development Corporation" on page 60.

To create the vehicle described above will require the commitment of Band funds.

It will be necessary to ensure that all members of the Band share in the productive capacity of the Reserve. All members of the Band cannot participate directly in agriculture production nor derive direct benefit from such production. They can however, share in this productivity through increased social and economic development that could occur and should occur as a result of agricultural development. Commercial and service industry development could be pursued aggressively but this also requires a firm economic base.

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Agriculture can and should provide that base. Those who enjoy the opportunity of using Blackfoot land to make money should share the proceeds with others through payment for the use of land. Such payment should realistically reflect what the land would return to the Band if used by others.

To ensure that maximum benefit to all Indian people, it is essential therefore, that farm land allocations be based on economic units that will provide enough money through agricultural production to:

- pay the costs of operation
- repay required loans
- provide a reasonable income to the operator
- pay the Band for the use of resources.

If the Band can make this final decision, then the door to progress will open for many Indian people on the Reserve.

To deny this program is to deny progress and reality. Non-Indian presently farming this land, whether on a crop share or cash rental basis, do so because they make money. Indians are no less capable of achieving the same results. Today, Indians are doing this on a number of Reserves in Manitoba. An additional eight units are projected. A new corporate unit is also projected for the Sarcee Reserve in Alberta.

Natural Resources

In common with the general area in which the Reserve is located and, indeed, much of Alberta, the Reserve has yielded, through exploration, a good deal of evidence of mineral resources.

Exploration of the Reserve, however, has been usually intermittent and inadequate to fully establish the Reserve's mineral resource potential.

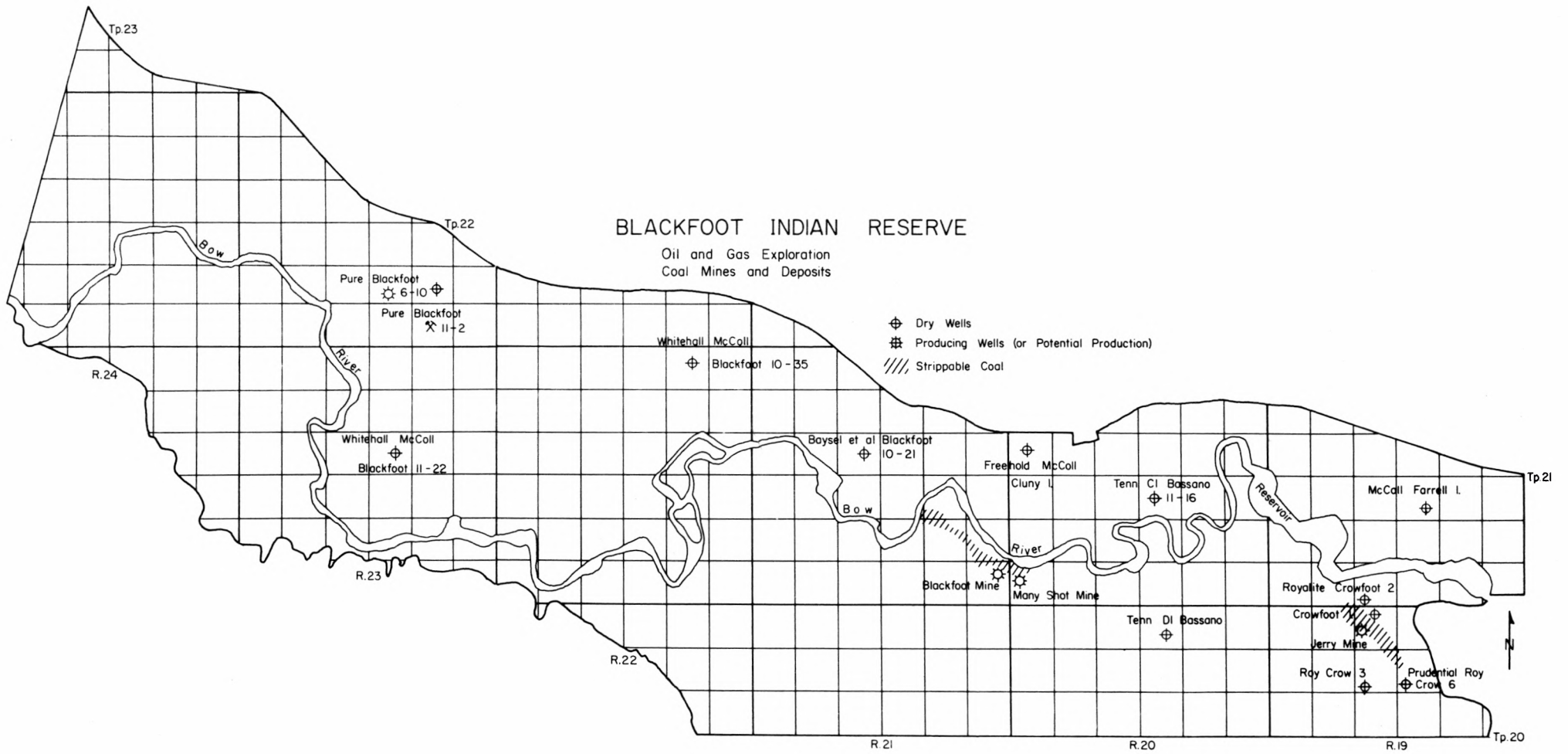
Oil and gas exploration has to date, failed to prove up adequate quantities but the search continues on and near the Reserve.

The existence of coal on the Reserve has also been established through various government and private investigations but its potential commercial value is unproven.

Production of primary resources of the kind which exist on the Reserve do not usually generate large employment opportunities unless production is on a very large scale or some degree of processing is involved.

Return to the Band through utilization of natural resources could be substantial however. Potential development should therefore receive the attention of the Band.

Following is a brief outline of the present situation regarding known resources.



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Oil and Gas

There are several established gas fields in the area. Extensive drilling has taken place around the Reserve and, to a limited extent, on the Reserve itself. All but one well (Pure Blackfoot 6-10) were dry. Another, Tenn Bassano 7-34, was not dry but was later abandoned.

There has recently been a good deal of drilling activity at the east end of the Reserve and in the area adjacent to it. Two promising wells have been brought in, one on the Reserve and one near by. Drilling activity continues.

There has been some extension of acreage under permit and lease as a result.

At present, although only 3 permits are in force, they cover 52,219 acres.

They call for payments of 20¢ the first year, 30¢ the second, 48¢ the third and 72¢ the fourth. At the fourth year, annual Band income would be \$37,600. In addition, 56,477 acres are under lease.

Leasing dates back to 1954. Most current leases extend from 1971 to 1978 and were taken out between 1961 and 1968. Lease income amounts to \$49,142 according to the Indian Affairs Branch Minerals Division in Calgary. The accompanying map shows location of wells drilled.

Evaluation

After a period of relative limited activity, exploration and drilling appear to be on the rise, increasing the probability of proving up a substantial gas field. This could increase the Reserve income and might also provide some employment. In addition, the existence of gas could make the area more attractive to industry.

Coal

Coal was, at one time, mined on the Reserve for domestic purposes and local sale. Calgary Power considered building a generating plant on the Reserve utilizing coal resources but did not receive approval from the Band. A study of the project was not completed.

Two deposits are known to exist:

- south of Cluny
- east edge of Reserve near Bassano.

No analysis has been recorded but the deposits are assumed to be sub-bituminous (8-9,000 BTU per ton).^{16?}

The coal is in 6-10' seams, 30-60 feet from the surface. Another seam is located at the 1,000' level but is not large enough to develop. Coal is also known to exist south of the Reserve.

Where the overlay is shallow, strip mining operations could be considered, although previous production was by means of horizontal shafts, starting at a river bank. Details of coal reserves of the Reserve and area mapped in 1966 and published in 1967 by the Research Council of Alberta are shown in the accompanying map of Reserve resources.

Evaluation

In the view of the Minerals Branch and of a Mr. Wm. Blackstock, who examined the area and advised the Band on coal stripping operations, there is need for additional exploration of the deposits to establish the feasibility of a thermo electric plant. Should the quantity and quality be proved up, the large water supply also needed would be readily available.

It is felt there is sufficient coal to warrant detailed evaluation of the deposits, to establish the amount, quality and potential uses of the coal.

There is some feeling that the coal's relatively low grade may limit the market as the demand for low grade coal has not expanded to the same extent in recent years as for harder grades.

Forests

The Reserve has no forested areas.

Fish

There are no lakes on the Reserve offering commercial fishing possibilities.

Fur

There is some domestic beaver and muskrat trapping but to a limited extent only, offering no potential for economic development.

Evaluation

There are no primary resources on the Reserve offering economic potential other than those described earlier, i.e. agriculture, oil, gas and perhaps coal.

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Retailing and Service Industries

The development of an Indian operated agricultural economy on the Reserve would provide an economic base for the operation of other enterprises, providing the income thus generated was used for the support of such projects. When potential agricultural income is combined with the purchasing power that already exists, the establishment of a variety of enterprises becomes a possibility.

At the present time, most commercial services patronized by Band members are located in towns adjacent to the Reserve such as Gleichen and Cluny. Major purchases are often made in Calgary. Increased economic activity on the Reserve could generate increased opportunity for Indian people.

Income

Total income on the Reserve at present through employment of residents and other sources, is estimated at \$1,364,000.

This is distributed as follows:

<u>On Reserve</u>	<u>No. Employed</u>	<u>Cash Income</u>
Farming	26	\$150,000
Cattle Raising	88	82,500
Hay Cutting	150	150,000
Handicrafts	25	3,000
Office Work (Band Civil Service)	7	25,000
Unskilled	50	135,000
Mission Council Committee	8	20,000
	<u>354</u>	<u>\$565,500</u>
 <u>Off Reserve</u>		
Trapping, Berry Picking, etc.	14	1,500
Skilled Labor	2	10,000
Unskilled Labor	125	375,000
Misc. (CPR, etc.)	2	7,000
		<u>\$393,500</u>
	Totals	\$959,000

In addition, income from Band and treaty payments, family allowances, welfare and other sources, produces a total of \$400,000 annually, Total income of Band members then, is thus calculated at about \$1,360,000.

Agricultural income of \$400,000 is added to other Band income. This figure is the net amount of income which should be generated through the proposed agricultural program. It is the difference between the total of \$630,000 which the 100 farm and ranch operators would earn under the proposed scheme and the present income of \$230,000 earned by the 26 existing farms and ranches.

Total potential annual income is reached by adding the \$400,000 agricultural income to other income of \$1,360,000 for a total of \$1,760,000.

Family Expenditures

The distribution of family income expenditures in Canada has been estimated by the Dominion Bureau of Statistics and has been used to estimate expenditures by residents of the Blackfoot Reserve.

Of the total of all items listed by DBS, some 80.5% of total expenditures distribution is felt to be applicable to members of the Reserve.

The distribution of income has been modified for the Reserve for all items except shelter and personal care by a factor of 40% (the items to which the percentage increases apply.)

The distribution of the DBS estimates and the modification for the Blackfoot Reserve, are shown in the following table:

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Distribution of Expenditures of Family Income

	<u>DBS Percent</u>	<u>Percent Distribution for Blackfoot Reserve</u>
Food	23.4	31.5
Shelter	18.6	18.6
Household	3.9	4.9
Furnishings	4.3	5.6
Clothing	8.8	11.7
Transportation	11.2	14.8
Personal Care	2.3	2.3
Recreation, etc.	8.0	10.6
	<u>80.5</u>	<u>100.0</u>

On the basis of the Blackfoot distribution, the estimated expenditures for the Blackfoot Reserve are shown as follows:

	<u>Percent Distribution</u>	<u>Reserve Expenditures</u>
Food	31.5	\$554,400
Shelter	18.6	327,360
Household Operation	4.9	86,240)
Furnishings	5.6	98,560
Clothing	11.7	205,920
Transportation	14.8	260,480
Personal Care	2.3	40,480
Recreation, Tobacco & Alcoholic Beverages	10.6	<u>186,560</u>
	100.0	\$1,760,000

Retail Outlets

The indicated pattern of estimated expenditures for the Blackfoot Reserve suggests that there would be sufficient sales volume to support one or more retail operations on or near the Reserve.

At present, there are no retail outlets on the Reserve. Most commercial activity occurs in the towns adjacent to the Reserve, particularly Gleichen and Cluny. The establishment of a number of retail outlets on the Reserve would further the potential economic activity of the Reserve. The types of retail opportunities are based on Band requirements for food, clothing, household supplies, automobile service and recreation.

The following table shows average sales volume of selected Canadian retail outlets of the type which might be considered for establishment on the Reserve. Sales volume varies substantially according to whether outlets are incorporated or unincorporated and whether stores are independent or affiliated with other stores.

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Sales Volumes by Types of Retail Stores*

	<u>Unincorporated** Stores</u>	<u>Incorporated** Stores</u>
Combination Stores***		
Average Sales	\$202,298	\$598,509
Hardware	82,423	306,966
Television Sales & Service	20,013	133,276
Furniture, Television, Radio & Appliance Stores	155,960	364,392
General Merchandise		
Owned Premises Sales		
50,000 - 199,999	142,854	N/A
Rented Premises Sales		
100,000 - 499,999	285,353	N/A
Independent General Stores****	102,206	465,786

* Source: Dominion Bureau of Statistics

** Includes unaffiliated stores and those affiliated with volunteer wholesale or retail groups operating in both rented and owned premises.

*** Combination stores are primarily engaged in selling a combination of groceries and fresh meat. The latter can account for anywhere from 15% to 50% of sales. Fresh fruit and vegetables, confectionary and tobacco products often form part of the trade.

**** These stores are generally in rural areas, selling dry goods, with groceries amounting to 1/3 to 2/3 of sales. In addition, at least one of the following are sold: hardware, building materials, housewares, furniture, appliances, feed, fertilizers, gasoline.

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By relating average expenditures on the Reserve to average sales volume of various kinds of outlets, it is indicated that certain types of stores could be established.

These are:

- a General Merchandise Store selling all manner of dry goods, hardware and hard goods plus food. Average sales volume runs \$142,000 for unincorporated and \$285,000 for incorporated stores. Returns of up to 5.66% of sales could be anticipated.
- a Combination Store selling groceries, meat, confectionery, fruit and vegetables. These stores averaged from \$200,000 to \$600,000 depending on whether they incorporated or not. Returns of 4.8% are possible.
- a General Merchandise Store handling hardware, dry goods, hard goods, appliances, etc. if a Combination Store was also established. Sales averaged \$100,000 to \$465,000 for these stores.

Alternately, appliances, furniture, television sales, could be handled through a Furniture, Television, Radio and Appliance Store. Sales for these stores averaged from \$150,000 to \$365,000.

*not supported by
Table P-12*

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Service Industries

In addition to retail outlets, service operations such as a barber shop, TV and appliance repair operation and a service station would offer potential. Recreation activities such as a bowling alley, billiard room and a movie, could also be supported.

Agricultural services such as implement repairs, fuel and fertilizer, herbicide and pesticide distribution, could also be sustained if the agricultural development program goes forward.

The breakdown of agricultural expenditures is shown in the following table.

Estimates of Annual Agricultural Expenditures
Blackfoot Indian Reserve

	<u>Annual Operating Expenditure</u>	<u>Annual Capital Expenditure</u>
<u>Grain Farming: 67 Units of 1,200 acres each</u>		
Seed	\$120,600	
Fertilizer	165,500	
Agricultural chemicals	26,900	
Gas & Oil	59,500	
Repairs	82,200	
	<u>\$454,700</u>	
Machinery purchase*		\$340,000
Grain Storage Bins**		10,000
		<u>\$350,000</u>
<u>Ranching: 29 Units of 200 head each</u>		
Building and Equipment**		12,900
Fencing**		850
Grain and Millfeed	\$24,000	
Other variable costs	<u>63,000</u>	
	<u>87,000</u>	
TOTAL	<u>\$541,700</u>	<u>\$363,750</u>

* 20% of initial capital of \$1,698,500

** 5% of initial capital of \$200,000.

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Expenditures

Service Industries:

Based on Canadian expenditures patterns as applied to the Blackfoot estimated income, the following levels of expenditures may be anticipated in the service industry operations:

Transportation (service stations, auto sales & service)		\$250,480
Personal Care (barber & beauty shops)		40,480
Recreation (movies, billiards, bowling, etc.*)		70,932
Farm Equipment & Supply (sales & service)		
Operating Supplies	\$541,000	
Capital Equipment	<u>363,750</u>	
		904,750

* It is estimated that about 4% of expenditures are for 4% of Blackfoot expenditure would be \$70,500

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Service Industries Operations

The indicated sales volumes in these operations suggest that there would be sufficient business to support a service station operation, a barber shop and beauty parlor, a farm supply store and perhaps some form of combined recreation facility. This is borne out by the following data which shows the average sales achieved for these operations in Alberta.

	<u>Average Annual Sales *</u>
Independent Service Stations (annual net sales over \$100,000)	\$143,334
Barber & Beauty Shops	15,734
Recreation Facilities	98,839
Farm Equipment & Supply	256,949

Although not specifically indicated by consumer expenditure patterns, it would appear that a laundromat with some dry cleaning service might prosper. Average sales volume required to be viable is estimated at only \$10,000 - \$12,000.

Summary

Based on these sales averages, it is estimated that the following service outlets could be established:

1. Combined Service Station, auto dealer, offering sales and service.
2. A combined barber and beauty shop (or each separately).
3. A recreation centre offering movies, billiards, bowling and probably a small coffee shop. (Average sales of the three first exceed the expenditure on the Reserve but if they were combined and a coffee shop included, the operation should be viable).
4. A combined farm supply store and implement dealership. These could probably also be operated separately.
5. A laundromat with or without dry cleaning service.

* Source: Dominion Bureau of Statistics

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Summary of Retail and Service Projects

Following is a list of retail and service operations which may be possibilities for the Reserve. The required sales volumes of these service operations, based on Canadian averages, are also given:

	<u>Sales*</u>
1. General Merchandise Dry goods, hardware	\$142,000
2. Combination Principally groceries and meat	200,000
3. Independent General Merchant Dry goods, hardware and some hard goods	102,000
4. Appliance, Furniture, TV This might be combined with 1 or 3	200,000
5. Service Station	128,000
6. Barber Shop & Beauty Parlor	16,000
7. Movie House, Bowling Alley & Billiards Probably including coffee shop	99,000
8. Farm Machinery & Supplies Outlet	257,000
9. Laundromat	\$10,000-\$12,000

It should be stressed, that the above establishments have been listed primarily to indicate opportunities for consideration. Each enterprise should be evaluated further in terms of local conditions, competition, etc. before any final decision is made.

* Estimated sales figures are averages for operations described.

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Tourist Development

Although there are no developed tourist attractions or facilities on the Reserve, there is one area which offers potential for development.

This area is located 2 miles south of Crowfoot which is on the Trans Canada Highway. It is known as the Buffalo Paddock.

Description of Area

There is a horseshoe bend in the Bow River which has become a lagoon or backwater which forms an island. The island is fenced and is used as a paddock for a small herd of buffalo kept by the Band.

The backwater is encompassed by high cliffs and the Bow River. It is shallow but sufficiently deep for fish. The backwater is about 200 yards wide and 3 1/2 miles long.

The cliffs north of the backwater are almost vertical and about 200 feet in height. They are extremely picturesque and offer a commanding view of the floor of Bow Valley. The area enclosed by the backwater is about 1,000 - 1,200 acres in size.

Access

Access to the area is by an all-weather gravel road running from the Trans Canada Highway at Crowfoot, to the ferry which crosses the Bow River 2 miles south of Crowfoot. The backwater itself is reached by trails running east from the north-south access road.

Present Use

At present, the area only draws light local traffic. People in the area fish there and a few tent along the cliffs in the summer. Jackfish or pike is the principal fish caught.

Potential Development

The backwater area offers excellent potential for sport fishing. The water level should be raised to prevent weed growth which could interfere with trolling. If the level was raised, the area could support sport fishing if stocked.

Ready access from the TransCanada Highway suggests a large number of passing tourists might be attracted if these attractions were developed and adequate tourist accomodation provided in the form of cabins or a small motel. The area would also offer potential for development as an overnight accomodation tent and trailer facility for travellers on the Trans Canada Highway.

Saskatchewan provides several high quality sites along the Trans Canada Highway, 1/2 to 1 mile off the highway. Some offer swimming, showers and laundry facilities. While the proposed project is farther from the highway than the Saskatchewan sites, if the facilities were of high quality, the added attractions of fishing, scenery and the buffalo should be sufficient to draw a substantial trade.

It would therefore appear that the potential would justify further consideration for development. The existence of buffalo in the area, the scenic outlook from the cliffs and the fishing potential could all serve as a basis for attraction of tourists.

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The area would also, to a large extent, serve and depend on residents of the district for trade.

Consideration should be given to development of both short term and long term accomodation in this area. A trading post type of store should be established to serve the trade. In addition to charges for accomodation, income could be earned from sales of food, gasoline and handicrafts.

This area could be the "core" area for tourist and recreation activity. From a base here, horse back riding, trail rides, cookouts, overnight camping and, in season, hunting, could be offered. The area has excellent areas for riding and abundant waterfowl and upland game. Guiding could be an essential service offered by the Band.

A detailed examination should be made to establish the feasibility and extent of developing tourist facilities along the lines described. Although there are a number of other tourist facilities in the area, it is felt recreation development designed to serve residents of the area and some passing trade is well worth considering.

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At the west end of the Reserve there is another area which has some potential. This is the Eagle Lake which has fishing and beach development potential. It is also large enough for boating activity. There is some cabin development on the west side of the lake and a small park planned on the east side by the county in which the lake is located. Both the east and the west shores of Eagle Lake are accessible to No. 1 Highway by graded and gravelled roads.

Eagle Lake is fed by the Western Irrigation District and therefore the water changes throughout the summer. There has been little interest shown in this development by either the Band or the county but the possibility of the Band developing the lake area further should be examined even though the lake is off the Reserve.

Industrial Development

The Blackfoot Reserve is located in an area with little or no industrial base. The nearest communities with industry are Vulcan and Strathmore and with one or two exceptions, these are of the service type. The Reserve is most accessible from Calgary, about 50 miles west.

If the Reserve is to provide employment even for a portion of the population which will be seeking employment, consideration must be given to the attraction and development of industry on the Reserve. As has been shown, the Reserve offers potential for farming, retail stores and services and for tourism. While these provide some employment and income, they will not be sufficient to support all Band members.

Provision of employment opportunity and income must be through the attraction of industry.

Attracting industry, however, will require a major change in attitude on the part of the Band. The Band will need to appreciate that employment is more worthwhile than welfare and hand-outs. The replacement of the 68% budgetary commitment for ration payments and welfare with wage income, should be the immediate objective of the Band.

The task of developing industry at Blackfoot will not be easy. Undoubtedly substantial incentives will be required. The Band must therefore, be prepared to employ all the resources which are at hand and which it can muster.

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If it does so, and develops an aggressive, practical and well structured industrial development program, it can achieve results.

It is beyond the scope of this study to provide an extensive industrial development program for the Blackfoot Reserve. Some indication of the Reserve's potential and some avenues which might be pursued, can be suggested, however.

Rural industrial development is primarily dependent on:

- location
- labor supply
- industrial services
- raw materials
- incentives (financing).

Although not necessarily in the order of importance, the factors have been evaluated briefly and the apparent impediments to industry attraction noted.

Location

The Blackfoot Reserve is reasonably well located, being on the Trans Canada Highway. The C.P.R. main line passes through the Reserve, thus providing excellent east-west rail services. The Reserve is approximately 50 miles east of the City of Calgary.

Labor Supply

The Reserve has an abundant supply of trainable labor, both male and female. The labor force has, however, two distinct disadvantages at the moment:

- (a) The distribution of the labor force is widespread throughout the Reserve with little central core development.

Although a town-site is being developed near Gleichen, the majority of housing is widely dispersed. There is a second planned settlement, but it is a considerable distance from road and rail facilities. Industrial employment for both males and females would require easy access to employment. Housing should be within walking distance of work so as to provide maximum opportunity to achieve work regularity.

(b) The labor force requires training in technical skills.

The Department of Indian Affairs should be ready to facilitate pre-employment and on-the-job training and programs. Provision should also be made for employment counselling during the early stages of employment.

Industrial Services

The town-site near Gleichen provides some of the services normally required by industry. Electric power is readily available, water is piped through part of the town-site. Sewage facilities could be developed as required.

There are, at present, no buildings available for industrial purposes. The Band should be prepared to provide buildings but should develop them as required.

Raw Materials

Both the Reserve and the area have some raw materials in abundant supply including agricultural products, coal, natural gas, oil and water. The processing or other use of these could form the base for food processing and chemical industries.

Most other raw materials and component parts could be obtained from Calgary.

Markets

It is not possible to be specific about market potential without knowing the types of projects that might be developed. It should be noted, however, that at Calgary, there is a market of 400,000 people, only 50 miles away. Many types of industrial enterprises could be developed to service such a market. Ready access to more distant markets would be possible via the Trans Canada Highway and the Canadian Pacific Railway.

Market potential for specific products could be determined through market studies.

Incentives

Any rural area without some specific natural advantage, hoping to attract industry, must consider incentives to reduce the disadvantages inherent in operating from remote areas. It will certainly be necessary to offer specific incentives to attract industry to the Blackfoot Reserve. The most effective are financial incentives. These include:

- payment of relocation costs or the cost of developing the project.
- financing the cost of training an adequate labor force drawn from Band members.
- the provision of a building or finances to build a building.
- provision of working capital, perhaps in some cases, assistance with cost of operations until the project becomes viable.

To be effective, a special incentives program or "package" should be developed which can be offered to industrial prospects.

In addition, serviced sites must be planned for ready development when a project is in hand. Serviced sites are generally best provided in an industrial park. The cost of such a development should be borne by those developing the project.

Possible Industries

"Footloose" and labor intensive industry will offer the greatest opportunity. The electronics industry, pre-fabrication and assembly operations and secondary manufacturing of soft goods should be explored. These offer the greatest potential for male employment. The garment industry is a large employer of women. This industry is short of labor in many areas and has shown a willingness to relocate to obtain staff.

Other types of industries might be, as suggested above, chemical processing industries and those processing agricultural products.

The manufacture of agricultural implements, mobile homes, boats and camping trailers are also expanding and might be developed. Specific consideration might be given to the possibility of identifying various requirements of the Suffolk experimental station and to the possibility of supplying some of these to the station.

More research and development work will be needed to identify more specific opportunities.

Financing the Program

The economic resources available for industrial development could be substantial. The re-allocation of ration payments (1968 estimate - \$171,000.00) to productive investment could provide the initial base.

Full development of agriculture by Indian people on a quarter crop share lease basis, would provide Band revenue of some \$360,000 per annum. In addition to this amount, it is estimated that the band receives revenue of over \$175,000 from oil leases, interest on capital, etc. The Band's total annual revenue could thus reach \$535,000 under full development.

If it is assumed that present Band housing, physical improvement and welfare programs absorb 50% of expenditures there would be over \$265,000 available annually for productive investment.

With financial resources of this magnitude available, the Blackfoot Band can and should, together with other agencies, undertake an aggressive and effective development program designed to create employment opportunity and provide for the economic betterment of the Reserve and all who live on it.

The organization through which finances could be channelled to economic activities, is described in the next section.

Economic Development Corporation

Background

In the foregoing sections of this chapter, a number of opportunities for utilization of Band resources, physical and human, through economic developments, have been identified.

These include development of 100 farming and ranching units and, with the creation of this economic base, the establishment of a number of retail outlets and service facilities.

A tourist development and, if funds are applied, some industrial development activities are also suggested.

The description of these potential developments, we feel, conforms with the growing awareness among Indians generally and the Blackfoot Band in particular, of the need for greater economic activity on or near Reserves to provide employment opportunity and better living conditions.

In this report, we have not attempted to minimize the fact that the development of these projects will require a great deal of capital. Such funds, however, are not always readily available to most Bands.

The Blackfoot Band does have capital funds and also receives income from such outside sources as the payment for oil and gas rights and through use of Indian lands. At present, these funds are devoted to non-productive social and welfare purposes. They should be redirected toward productive developments at Blackfoot.

Besides Band resources and such government funds as may be available, there are also many untapped financial resources. Many private financial institutions could supply funds providing

there were economic justification for doing so.

There must also be an agency or organization however on the Reserve through which funds from all these sources could be applied. At present, no such organization exists nor does any other means whereby funds, even where available, can be channelled into productive use through economic development programs and specific development projects.

Proposed Organization

A facility is needed for developing productive, (wealth producing) Indian oriented projects and for providing the funds necessary to carry them out. Such an operation would ensure active Indian participation in the economic development of the Reserve.

The proposed agency for achieving this purpose would be an "Economic Development Corporation". The corporation would provide:

- a means of channelling available funds from normal financial agencies into Band oriented enterprises
- a source of capital extending beyond the degree of risk and lending term acceptable by other lending institutions to provide the added funds needed for proposed projects where otherwise not available
- a means of securing loans from normal financial sources through guarantee of loans. Security would be a general charge on Indian lands on a

- Reserve which would be turned over to the Corporation's use and control. The Corporation would, in effect, undertake to apply the proceeds of the use of the land to repayment of loans
- the agency through which Band revenue would be invested for the benefit of the Band
 - a vehicle for application of government financial assistance - both provincial and federal
 - a way of assessing the viability of proposed projects and carrying out research related to new projects
 - a means of carrying out continuing review of Corporation financed projects and of providing management guidance and assistance as necessary.

Details of the way in which such a Corporation would operate follow:

Purpose

To facilitate economic development programs designed to establish or intensify economic and/or employment opportunity on the Blackfoot Indian Reserve. The Board would seek to carry out this purpose by the following:

1. To collaborate with lending institutions or agencies in the financing of projects.
2. To sponsor or undertake studies designed to create or expand economic opportunity.
3. To provide financial and technical assistance to new or existing projects.

Method

The Economic Development Corporation would, through financial participation on a loan basis, collaborate with conventional lending institutions or agencies to provide a source of capital on realistic repayment terms to establish new or expand existing operations. The Corporation would also guarantee repayment of portions of loans as normally required by conventional lenders through personal covenant, either by Directors in the case of Corporations, or personal guarantees in the case of individuals.

Source of Funds

The Corporation would be Band-owned. It would be operated by appointed trustees for the benefit of the Band.

Initial financing would be through an establishment grant made by the Band and matched by the Indian Affairs Branch.

Additional financing would be provided through the commitment by Council of a specified portion of revenue from productive development. Initially, 50% is suggested.

Primary obligation would be between the borrower and a conventional lender. The secondary obligation would be the borrower and the Corporation. Branch participation would end at the conclusion of the five year period.

CHAPTER IV

THE COMMUNITY

There are two planned townsites on the Reserve:

- a) Gleichen - the largest townsite is near Gleichen, south of the railroad and to the south and east of the Indian Affairs Agency buildings. Eighteen Indian homes (plus the Agency buildings) are hooked up to the town water system. The same system will serve both the planned townsite on the Reserve as well as the town of Gleichen. The lagoon will be located on the Reserve south and east of the planned townsite.

The sewer mains have been laid for connecting to the town system.

- b) Little Washington - this community is five miles south of Cluny. It now has twelve houses and a skating rink. All houses and the rink are served with a central water system. No sewage service has yet been installed.

The Blackfoot Reserve is similar to many Reserves in that it is dependent, at present, on adjacent towns for social, business and community orientation.

The two communities of any consequence are Gleichen and Cluny which are located along the north boundary of the Reserve near the Trans Canada Highway.

The towns are of major importance to the Band as they provide services and amenities for welfare and convenience not otherwise available on the Reserve. The Reserve is strongly oriented to Gleichen, and to a lesser extent, Cluny. Access to these centres is important.

Gleichen is the major service and administration centre. The town has a post office, hotel with a beer parlour, a laundromat and several garages and grocery stores. Cluny also has a number of retail outlets and a post office where mail is distributed and cash disbursements are made. As well as providing a meeting place for the Blackfoot, the towns offer casual employment to small number of Indians.

The only community facilities on the Reserve are near the two communities. The old Sun School and Blackfoot Hospital the Indian Agency Office and the Crowfoot Community Hall are near Gleishen.

Housing

There is a total of about 210 homes occupied on the Reserve according to a 1966 survey. The survey found there was a substantial shortage of houses. A major building program has been underway since then and the condition is not as critical as it was when the survey was made.

With the expanding population, however, there is a continuing demand for additional homes.

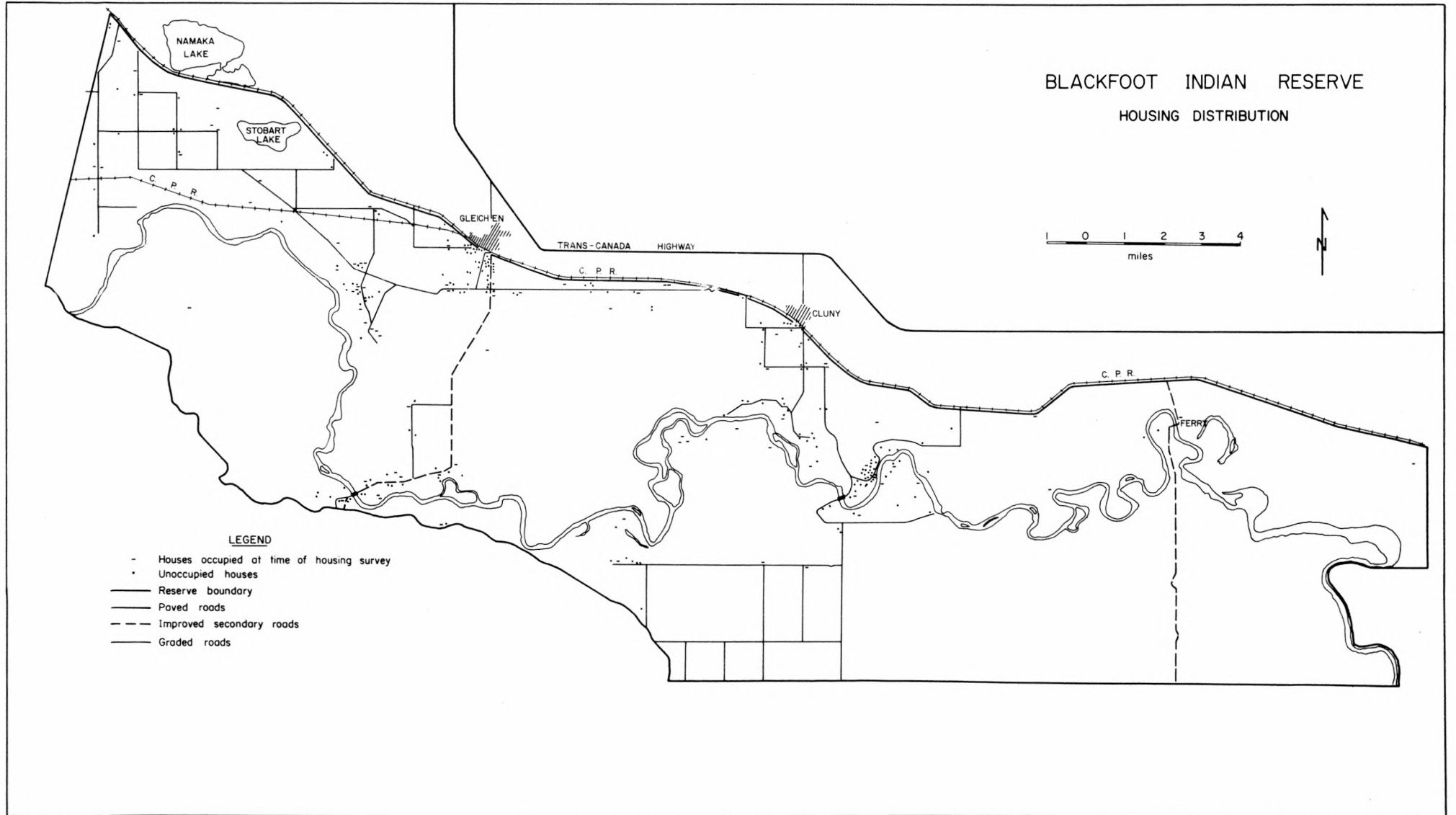
Demand for homes has been projected at 135 during the next 10 years (to 1966), based on anticipated population increase of 850 and the resultant 136 new family formations.

Roads

Over the past two years, there have been substantial road improvements on the Reserve with the result that nearly everyone on the Reserve now has access to gravelled roads.

There are several roads on the Reserve running mainly north and south. The major ones are all-weather gravel and run from Gleichen on the north to Arrowood and from Cluny to Milo. A third road, also gravelled, runs from Crowfoot through the Reserve where it joins the municipal road system in the south. A ferry provides a crossing at the Bow River. There are also several access roads running through the Reserve. In all, there are about 20 miles of all-weather roads and about 120 miles of other roads. Capital expenditures on roads has amounted to about \$10,000 per year in recent years.

Access to the Reserve is via the all-weather Trans Canada Highway running along the north of the Reserve. The main line of the Canadian Pacific Railway also runs through the Reserve.



Services

Electrical Power

Availability

Over 95% of all occupied houses on Reserve have power.

The few houses without power are smaller ones built after 1928.

Capacity

Single Phase

Source

Calgary Power Limited

Expansion Potential

Present single phase power supply is adequate to meet needs of the Reserve in the foreseeable future. If 3 phase power is required, additional capital expenditures would be required.

Rates

Typical residential rates for a 3 KVA service is 2¢ per KW with a minimum of 20 KW per month. There is an additional depreciation charge of \$2 per month.

Water

Availability:

About 20% of homes are served by a central system. Wells provide water to 65% of the homes on the Reserve, while the balance have no water service.

Sources

Bow River, Crowfoot Creek and individual wells

Quality - Good

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Cost

\$3 per month for service set by the Band Council resolution.

Waste Disposal

Existing Situation

Individual arrangements

Future

A sewage system is in the development stage for selected parts of the Reserve.

Fuels

Gas -	Availability	Not presently available.
Coal -	Sources	Mine on S.E. corner of Reserve and purchased through grain elevators. ?
	Availability	Most times good.
	Costs	\$15.70 a ton.
Oil -	Sources	Bulk. oil dealers, Gleichen, Cluny.
	Availability	Readily available.
	Costs	\$7.80 - 45 gal. drum.

Telephones

Wires were laid underground during this past year throughout the whole Reserve. It is expected service will commence in the spring or early summer of 1969.

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Band Financing

The Blackfoot financial resources, both revenue account and capital, have been declining at a rapid rate in recent years

In 1968, the Band had \$1,331,813.77 in its revenue account and \$1,679,055.23 in its capital account. Total financial resources was \$3,020,941.05.

The revenue account of the Band reached a peak in 1950 of \$1,403,758.40. Between 1950 and 1959, expenditures from revenue reduced this amount to \$49,965.38, or an average reduction over a nine year period of \$155,973.00 per year. In the period 1959 to 1968, expenditures have roughly equalled revenue leaving practically no surplus in the revenue account.

The capital account reached a peak during 1953 at \$1,918,644.00. This amount had been reduced to \$870,427.00 by 1967. Annual average reduction for the 14 year period 1953-1967 being approximately \$75,000.00 per year.

Projecting continuing declines in capital at the rate of \$75,000.00 per year would indicate complete expenditure of capital within ten years (1978).

* See attached graphs

Band Revenue

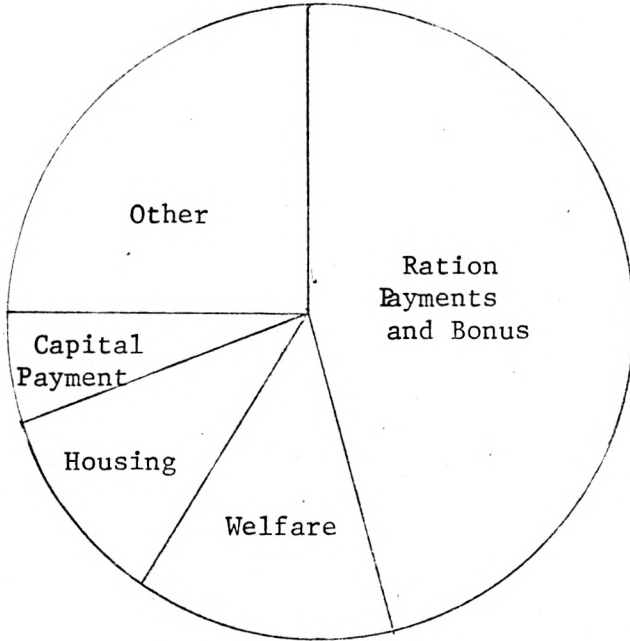
Revenue accrues to the Band through

- oil leases
- farm leases
- government interest on capital funds.

Revenue from these sources in recent years comes to some \$350,000.00 per year.

Band Budget

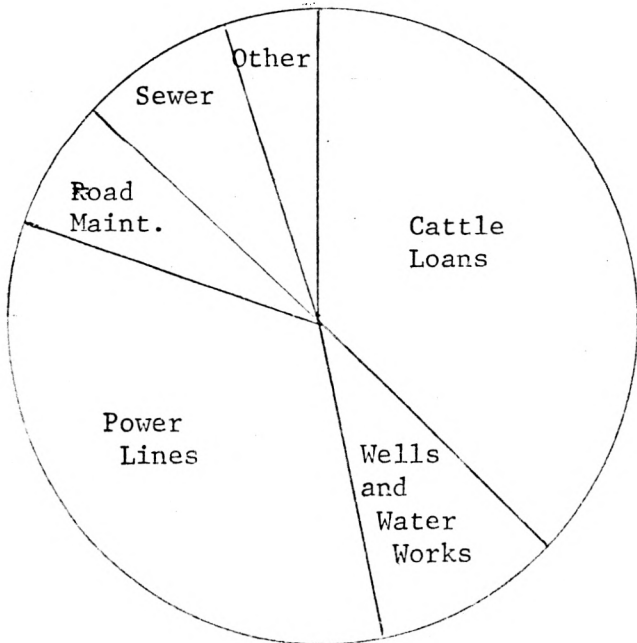
The following represents Band revenue expenditures projected for the 1967-68 fiscal year:



Ration Payments	\$148,050
Welfare	50,000
Housing	40,000
Capital Payment	
Farm Assistance	\$18,607
Water Wells	<u>3,000</u> 21,607
Other (Section 68)	<u>72,775</u>
Sub-Total	\$332,432
Supplementary Ration Bonus	23,000
Other	<u>21,642</u>
Total	\$377,074

Capital Budget

The following represents Band capital expenditures projected for the 1967-68 fiscal year:



Cattle Loans	\$ 40,000
Wells and Water Works	9,500
Power Lines	40,600
Road Maintenance	10,000
Sewer	10,000
Other	<u>5,000</u>
Total	\$115,100

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Band Loans

In addition to the revenue and capital accounts, the Band has loaned a substantial amount of money to members. It is, however, questionable as an asset under present conditions due to the number of loans in arrears and the reluctance of the Band to press for repayment. The loans were distributed as follows in 1968:

Housing Debt	\$312,705
Farm Debt	182,874
Cattle Debt	100,933
Well Debt	59,836
Placement Debt	<u>1,162</u>
	\$657,510

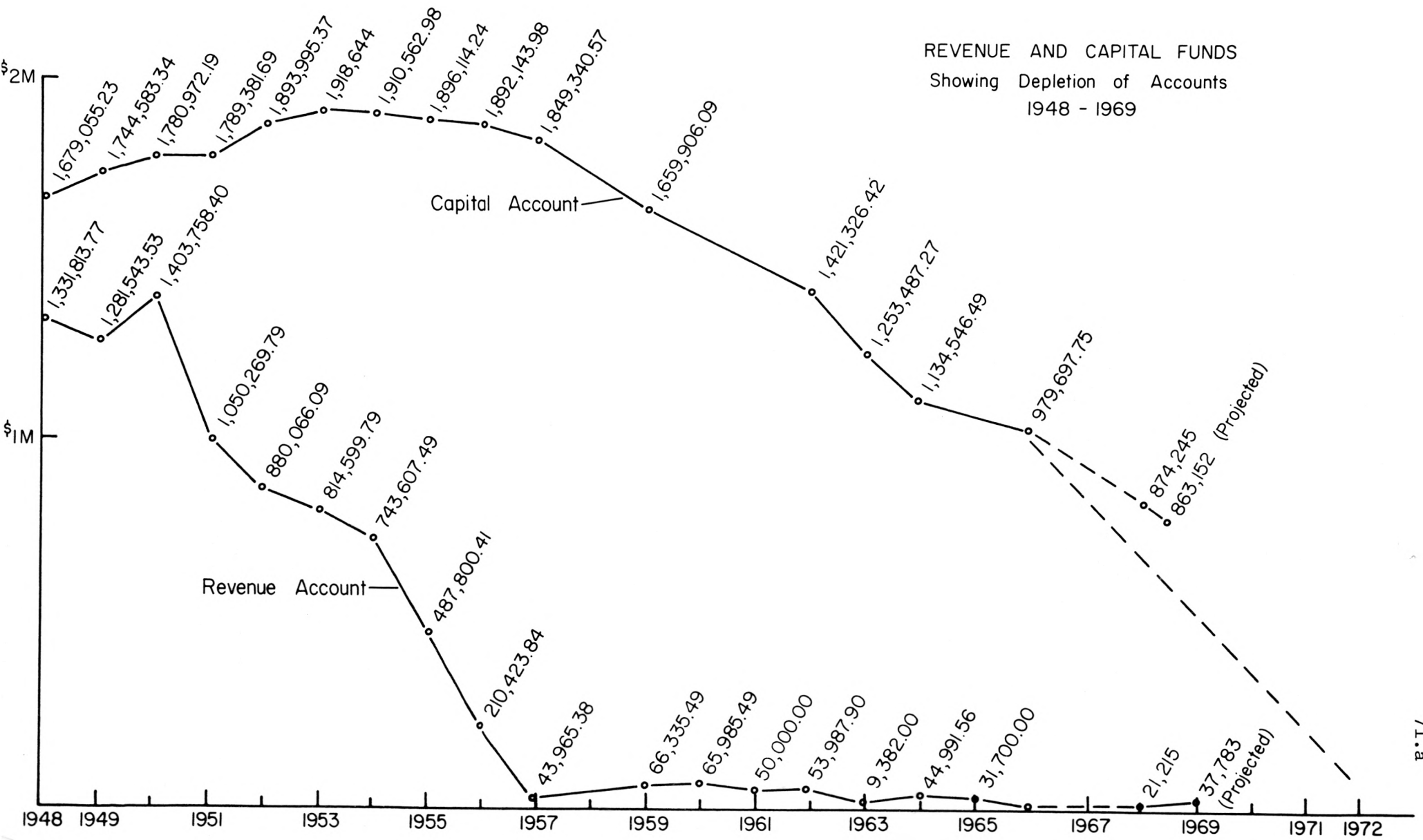
The loan account is equivalent to a per capita debt for each member of the Band (based on 2,200 members) of approximately \$300.

In terms of family formations, total average indebtedness is (basis $6.3 \div 2,200$ or 349 family units) \$1,884 per family.

These loans reduce each Band member's share in the financial resources of the Band by \$300 or the share of each existing family unit by close to \$2,000. All members however, have not borrowed from the Band.

Repayment of this money would substantially improve the Band's finances, but it is unlikely that the majority of these funds can be recovered. Present employment and income levels are insufficient to permit this.

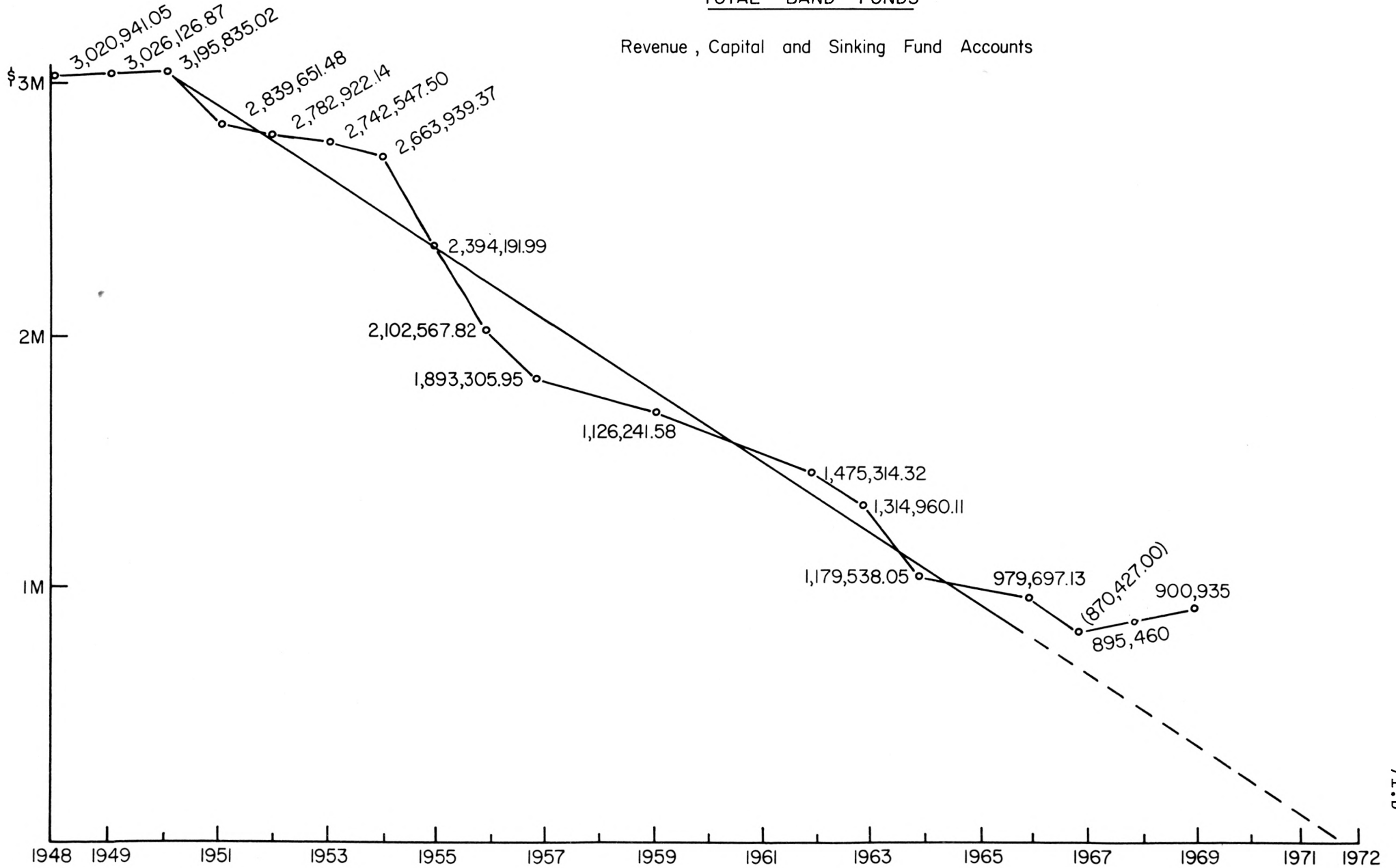
A realistic way should be devised to relate this debt to the borrowers. One solution to the problem might be to levy what would in effect, be a tax on each borrowing members as long as the loan is outstanding. The amount of the tax would be determined by the size of the loan.



REVENUE AND CAPITAL FUNDS
 Showing Depletion of Accounts
 1948 - 1969

TOTAL BAND FUNDS

Revenue, Capital and Sinking Fund Accounts



CHAPTER V

EVALUATION

The Blackfoot Reserve

The Blackfoot Reserve is essentially a 175,000 acre tract of agricultural land housing a growing population of over 2,200 inhabitants. The land is relatively undeveloped and unproductive in terms of benefit to the Band. The Reserve and area generally consists of little else except the basic agricultural economy and the businesses which service agriculture and the people engaged in it.

The land is generally flat, treeless and fairly arid, although one of Alberta's major rivers, the Bow, courses through the Reserve. There are close to 172,000 acres of land which are potentially productive. Most land is held in small parcels.

The Reserve has no community or activity centre on it. Band members look to adjacent villages to supply their needs. Housing on the Reserve tends to cluster around these towns.

The lack of community facilities and services has undoubtedly been a detriment to development of the Reserve and the relationships of Band members to the non-Indian environment. To the extent that employment is available, it is found in agriculture.

The Surrounding Area

In the immediate area of the Reserve, there are less than 40,000 persons of which only about 6,000 are classed as urban (living in towns of 1,000 or over). Two-thirds of the 10,000 who have incomes earn less than \$3,000. Of the farms listed, almost half recorded cash incomes over \$1,200 in 1961 and nearly 40% indicated income in excess of \$2,500.

Retail trade amounted to \$28,000,000 or \$700 per capita. There were 367 retail, 143 wholesale and 182 service outlets in the area. Twenty-eight manufacturing establishments were also recorded, mostly small. Average output was \$31,000 in 1961. An estimated 300 workers were employed in these industries.

As limited as the economic activity is in the area, its extension to the Reserve in terms of agricultural development, commercial activity and industrial and perhaps tourist development, will be essential to permit utilization of the Reserve's assets, mainly its land and people.

The People

The population of the Reserve has grown rapidly in recent years and has now reached the point where unemployment and under employment is a serious problem. The situation will become more acute with each passing year as population grows. The population projections confirm this. In 1956, population was 1,400. Today it is over 2,200. By 1971, it will be 2,550 and by 1986 (less than 20 years) it will be more than double today's total, at 5,200.

Emphasizing the need for employment is the fact that the male labor force 20-54, has only 300 members. These must support a total population of 2,200!

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At the present time according to our estimates based on actual survey, the labor force is about 60% utilized. Much must be done to raise this level and with it, incomes. Most on the Reserve earn less than \$1,500 per year, considerably below their white counterparts in the surrounding area.

Employment needs will also rise by 1981 when 705 men, 2 1/2 times the present total, will need jobs.

The survey of the Reserve people indicated that education levels were rising. It is estimated that on the basis of the survey, in the over 15 age group, only 15% or about 135 had less than grade 7. There is much need for improvement at the high school level. Only 15% of those surveyed had attained grades 11 and 12. More technical training is also needed. Less than 1/3 of those surveyed indicated they had had some form of training.

In seeking off Reserve employment, most indicated a willingness to travel up to substantial distances (most at least 10 miles).

Life on the Reserve obviously is in need of improvement. Homes valued at an average of \$2,000 - \$3,000 cannot be considered more than barely adequate. Two-thirds of those interviewed expressed dislike of their homes. In the younger group, this increased to 85%.

Economic Development

Agriculture -

The agricultural resources of the Reserve could provide an excellent base for the economic advancement of the people of Blackfoot. Indians have not farmed since the mid-fifties when a combination of farm quotas and mechanization made financing the operation of small holding impossible. Involvement of Indian ranchers

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and farmers in the proposed development, however, could yield an estimated annual return of nearly one million dollars to the Reserve in the form of personal income and as payment to the Band. The Reserve land can provide approximately 100 family units with an adequate living standard and the \$343,118 paid in rental fees is a substantial fund by which other people can become involved in other permanent, economic ventures.

Thus, the agricultural evaluation of the Reserve and a review of other resources on the Reserve indicate that agriculture is the only immediate source of economic opportunity. The indicated potential for agriculture is of sufficient dimension to suggest early development.

The establishment of the proposed 100 farming and ranch units would provide support for upward of 600 people and generate direct income of over \$600,000 (100 farms would average \$6,000 income per farm). The existence of 100 farms and ranches would create a substantial market for fuel, machinery repairs, fertilizer, agriculture equipment and other goods and services. There would also be a greater demand for consumer goods and services including food, clothing, household supplies, automotive servicing and recreation, etc. Much of this demand could be met by the establishment of retail and service facilities on the Reserve.

Of greater importance would be the income received by the Band through the lease of farm lands to the Indian operators. These funds could and should be applied to the development of Band operated enterprises or those which would provide substantial employment to Band members.

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Until recently, it has been the practice of the Band members who hold land, to lease it to white farmers and to retain the income although the land is Band owned. Beginning in 1968 however, no leases return revenue to individuals holding the land. The Band has in effect, taken control of all farm land.

The future of the Reserve is thus related to land-use policies.

The primary physical resources of the Reserve, other than agriculture, at present offer no employment but future development of gas and coal reserves may both offer income and employment potential. The Reserve possesses few other proven resources. Water may be of future benefit for irrigation and tourist projects but there is no other resource base apparent at present.

Retail and Service Facilities

A basic premise of this study is that increasingly Band members will want to provide their own facilities and services. If the proposed agricultural development proceeds, the resulting purchasing power of the operators when added to existing band income from employment, welfare and other services is estimated at \$1,760,000. This should justify one or more retail outlets. Similarly, requirements for service facilities will grow.

In addition to family purchasing power the farm operations will require all manners of supplies and services.

A total annual demand of \$900,000 has been projected which should more than support a farm supply outlet based on average sales volume required by various types of retail and service operations. The following facilities should be considered:

- General Merchant (carrying dry goods and hardware)
- Combination Store (groceries and meat)
- Appliance and T.V. Sales Service
- Service Station
- Barber & Beauty Shop
- Movie, Bowling and Billiards
- Farm Machinery and Supplies
- Laundromat

A research program should be undertaken as soon as possible to determine the feasibility of each type of project that has been proposed.

Tourism

The Reserve may well hold promise for tourist development.

A modest project 2 miles south of Crowfoot at the Buffalo Paddock area, could become a "core" recreation facility, based on the fishing, on scenery in the area and on trail riding and hunting in season. An added component is the proximity to the Trans Canada Highway. Good tent camping and trailer facilities combined with a good access road from the highway, could result in development of an overnight trade to compliment the longer term use by residents in the area.

Eagle Lake, adjacent to the western boundary of the Reserve, might also merit further development. The recreation potential of the area and participation in such a development by Band members should be investigated.

Industrial Development

The Reserve and indeed the area, possess no major industries. The Reserve does have some potential based on such assets as the labor force, resources such as gas, oil, coal and water and agricultural products.

If a determined effort was made to make the Reserve attractive by developing industrial sites and services (and perhaps buildings) and by offering financial incentives, it is probable that some industries could be attracted.

An aggressive, long term program, however, would be needed if the Band's efforts are to succeed.

The Community

Absence of community planning and involvement in community affairs, has led to the present scattered housing situation of the Reserve. Pockets of homes are clustered near Gleichen and south of Cluny along the Bow River. The rest are scattered throughout settlements in the western part of the Reserve. The eastern part is unoccupied.

The Blackfoot Reserve, at present, does not have a real social, recreational or cultural core common to most small communities. As a consequence, opportunities for social inter-action are severely restricted. If the community as a whole, is to advance, it is imperative that community involvement be fostered. This can be done in part, through the provision of facilities and services for social advancement - adult education and recreation.

There is thus at present, an urgent need for the development and extension of the planned community on the Reserve. This would upgrade the physical environment and benefit the Reserve residents.

It is to be anticipated that increasing numbers of Band members will seek employment off the Reserve. It is likely that a continuing process of integration will develop. This however, should not be considered as a reason not to develop a community facility to a level comparable with those of surrounding towns. Integration of Indians into the off Reserve, non-Indian work force and social environment can be achieved much more readily by raising the level of living and work standards on the Reserve. In turn, this will serve to raise the Indians' level of aspiration.

Better facilities must also be provided for those who elect to remain on the Reserve. A more urban-like environment with upgraded and extended community and social services will be needed for Reserve residents.

In many communities in western Canada, social and recreation functions provide a basis for being together and making decisions together. For the Blackfoot Reserve, more emphasis should be placed on community involvement of this kind than has been the case in the past. To progress requires joint effort. The old adage "in unity is strength" has special significance to Indian people, particularly since the effects of another adage "divide and conquer" as practised by many in the past, both Indian and non-Indian, has been to inhibit the social and economic advancement of Indian people.

Band Financial Position

During the period between 1948 and 1967 there has been a steady decline in the financial resources of the Blackfoot Band. Total financial resources have been reduced from a high in 1950 of \$3,195,835 to \$870,427 in 1967, a net reduction of \$2,325,408 and an average reduction during the period, of \$137,000 per year. Since 1967, there has been a modest reversal of the trend.

This decline is due to expenditures by the Band in three principal sectors:

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- (a) Physical improvement of the community. This includes road construction, installation of water and sewage facilities, housing program and electrification.
- (b) Welfare or sustenance programs being principally welfare payments (shared 50-50 with the Department of Indian Affairs) and ration payments. In the fiscal year 1968-69, these two expenditures amounted to \$221,000 out of the total budget of \$357,000. This is 58% of the total budget.
- (c) Economic improvement or assistance programs such as cattle and farm assistance.

Of these programs, only the economic improvement or assistance program is a productive investment program, that is, a program to make it possible for members of the Band to achieve a greater degree of financial productivity.

Welfare and ration payment programs, although paid out of revenue, have a detrimental effect on the Band's position financially. Items presently financed through the capital account should be financed through the revenue account as these are essentially non-returnable expenditures. To continue to expend capital account moneys in the non-returnable area will inevitably lead to complete depletion of the capital account.

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If the Blackfoot Band is to achieve any kind of economic stability and advancement, it must keep its present expenditures within its level of income.

A new approach to Band member financing by means of loans is needed. More money should be invested in "returnable" sectors, i.e. loans for economic advancement that are truly repayable. Farm loans and ranch loans should only be of a magnitude which will permit for realistic repayment with interest. Money so lent is the property of all members of the Band and that the Band Council is really only the "trustee" administering same on behalf of the Band.

Housing loans should be looked at from the same standpoint. To lend money for housing to people who cannot repay is not to lend but to give money belonging to all to a particular person or family. This is inequitable and unfair to Band members as a whole.

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APPENDIX

NOTES RE APPENDIX

The productivity ratings in the Blackfoot Agricultural Report from which the agricultural material in this study have been drawn, and based on a number of considerations and assumptions which should be noted:

- prices are based on Canadian Wheat Board prices which are now probably low.
- prices however, are not as significant today as the question of salability of agricultural production.
- under conditions that exist today, much if not all of the proposed program should be based on livestock (and putting grain through livestock).
- it is recognized that 4,000 acres is too much for one man to farm even though 2,000 acres would be summerfallowed annually. Using this size of operation was a way of showing that return from Class IV land is low and why livestock should be considered.
- soil productivity ratings were based on data supplied by experts. However, newer ratings have and are being developed which could affect the projections in the report.

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PRODUCTIVITY OF SOILS BY CLASS AND AREA

A. Soils most suitable for Beef Production

Class 11 and Class 1V

Note - Class 1V land provides good grazing land or marginal arable land. Included here to show potential for beef production.

POTENTIAL PRODUCTIVITY

Carrying Capacity in Animal Units

Area	Class 11 Soils		Class 1V Soils	
	<u>year around production</u>	<u>summer grazing only</u>	<u>year around production</u>	<u>summer grazing only</u>
1	319	559	88	146
2	260	455	156	261
3	287	478	190	317
4	546	911	418	696
5	783	1306	208	347
6	301	502	56	93
7	350	583	irrigable land not included	
8	104	174	17	17
9	458	764	---	---
Totals	3408	5732	1133	1877
Total Gross Revenue*	\$315,194	\$531,815	\$105,120	\$174,148

* Value used - \$92.78 per calf.

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PRODUCTIVITY OF SOILS BY CLASS AND AREA

B. Soils Recommended for Grain Production

Annual Acreage, Production and Value with Recommended Rotations

Class IV Soils

Area	Acreage	Summerfallow Acreage	Cropland Acres		Yields Bushels/Seeded Acre	
			Wheat	Barley	Wheat	Barley
1	2200	1100	1100	----	13,200	----
2	3920	1960	1960	----	23,520	----
3	3810	1905	1905	----	22,860	----
4	8360	4180	4180	----	50,160	----
5	4170	2085	2085	----	26,020	----
6	1120	560	560	----	6,720	----
7	4690	2345	2345	----	28,140	----
8	340	170	170	----	----	----
9	----	----	----	----	----	----
Total	<u>28,610</u>	<u>14,305</u>	<u>14,305</u>	<u>----</u>	<u>170,620</u>	<u>----</u>

Class V Soils

1	----	----	----	----	----	----
2	----	----	----	----	----	----
3	4130	1376	1376	1376	20,640	39,278
4	2340	780	780	780	11,700	22,150
5	5860	1953	1953	1953	29,295	55,465
6	12,790	4263	4263	4263	63,945	121,069
7	4250	1416	1416	1416	21,240	40,214
8	2800	933	933	933	13,995	26,497
9	7320	2442	2442	2442	36,630	69,353
Total	<u>39,490</u>	<u>13,163</u>	<u>13,163</u>	<u>13,163</u>	<u>197,445</u>	<u>373,826</u>

Class VI Soils

1	----	----	----	----	----	----
2	----	----	----	----	----	----
3	----	----	----	----	----	----
4	----	----	----	----	----	----
5	----	----	----	----	----	----
6	4050	1350	1350	1350	27,000	38,340
7	1300	433	433	433	8,600	12,297
8	7050	2350	2350	2350	47,000	66,740
Total	<u>12,400</u>	<u>4133</u>	<u>4133</u>	<u>4133</u>	<u>82,600</u>	<u>117,377</u>

Totals for All Areas:

Arable Acreage	80,500 acres
Annual Acreage Summerfallow	31,601 acres
Annual Acreage of Wheat	31,601 acres
Annual Acreage of Barley	17,296 acres

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Totals for All Areas continued:

Annual Yield of Wheat	451,765 bushels value - \$788,552 @ \$1.73/bus.
Annual Yield of Barley	491,206 bushels value - \$466,645 @ \$.95/bus.
	<hr/>
Total	\$1,255,197

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SOILS AND CROPPING PRACTICES REQUIRING SPECIAL ATTENTION

A. Class 1V Soils - These soils are described as being poor to fair arable land producing 10-12 bushels of wheat per seeded acre on a long term basis and a marginal soil between arable and pasture classes.

Total Acres - 28,610 acres.

- (1) Location - Class 1V soils are always adjacent to Class 11 soils and in most cases, serve as a transition zone between these soils and Class V and VI soils.
- (2) Present Use - A substantial area of Class 1V soils in area 4 are now under cultivation on a leased basis. This is also true of the areas in Areas 7 and 5 which are suitable for irrigation.
- (3) Cultivation - Class 1V is a marginal arable soil and special care must be used in its cultivation, soil erosion by wind and water must be controlled. The normal crop rotation is wheat-summerfallow. Class 1V soil must be farmed in large acreage units in order to bring an adequate return from cereals.
- (4) Beef Production - Class 1V soil is well suited to beef production capable of supporting one Animal Unit on 20 acres of land or less.
- (5) Potential Monetary Return from Development - The largest return to the Reserve will be obtained from cultivating Class 1V soils (\$114,153). It will be noted in the analysis of these returns, that under a 1/4 crop share lease to operators, the major share of the returns from this land will accrue to the Band (63.5% or \$71,916). If operators are established on economic units of 4,000 acres, Class 1V land would support 7 farmers with an annual income of about \$6,000.

Beef production would supply less total revenue to the Reserve. Class 1V land would support 1,367 Animal Units, with a total annual revenue of \$64,891. Operators would receive 79% or \$51,241 of this. Economic units of 100 Animal Units would provide 14 ranchers with an annual income of \$3,747.

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For direct comparison with grain production, Class 1V land would support 7 ranchers with economic ranches of 200 Animal Units and an annual income of \$7,500 each.

- (6) Probable Development - A substantial area of Class 1V soils is now under cultivation in Area 4 as well as the potentially irrigable land in Areas 5 and 7. The irrigable land totals 4,900 acres. A portion of Class 1V land adjacent to Classes V and VI will probably come into cultivation or is in cultivation now. This portion will likely not be large.

The remainder should be used for beef production.

B. Irrigable Land - Approximately 4,900 acres of Class 1V land can be irrigated. Development will depend on whether or not the necessary skills are available to operate an irrigation project and the demand for the crops produced under irrigation.

Present use for dry land cereal production yields about \$39,200 per year. Under irrigation, this land will produce up to 5 tons of Alfalfa per acre. If we use a lower figure, say 3 tons per acre, and value the hay at \$20 per ton, this area would produce 14,700 tons with a value of \$294,000. Use of this land, or a portion of it, for hay production, situated as it is in a major grazing area, could substantially increase beef production. This potential could be developed by individual farmers who would harvest the hay and sell it to the beef producers for winter feed.

C. Recommended Crop Rotations - Class V and VI soils - wheat, barley, summerfallow or similar rotation including oats and rapeseed.

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TOTAL REVENUE POTENTIAL OF FULLY DEVELOPED RESERVE AGRICULTURE

A. Beef Production - Four alternative systems of beef production are available on the Reserve.

1. Use of Class 11 soils to provide summer and winter forage for cattle.
2. Use of Class 11 and Class 1V soils to provide summer and winter forage for cattle.
3. Use of Class 11 soils only to provide summer grazing only and use of irrigated land to provide winter forage.
4. Use of both Class 11 and Class 1V soils to provide summer grazing only and use of irrigated land to provide winter forage.

A fifth alternative exists also. This is the operation of a feed lot to fatten calves during the winter. Great skill is required for the successful operation of a feed lot and its operation should be examined separately at a later date when its development appears feasible.

Factors influencing profitability of Beef production are:

- 1.* Weaning weight of calf.
2. Prices at which calves are sold at in fall.
3. Size of calf crop in relation to number of cows kept. (percentage of calf crop).

* For purpose of the following analysis, a weaning weight of 420 lbs. has been used, together with the average price (1960-64) of \$23.21 per 100 lbs. and a calf crop of 85%.

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Alternative 1.

Carrying capacity - 3,408 Animal Units		
Gross revenue from fall sale of calves	\$316,194	
Cost of production	<u>154,416</u>	
Net Revenue to Reserve		<u>\$161,778</u>

Alternative 2. (not including 4,900 acres of irrigable Class 1V soil)

Carrying capacity - 4,541 Animal Units		
Gross Revenue from fall sale of calves	\$421,313	
Cost of production	<u>205,752</u>	
Net Revenue to Reserve		<u>\$215,561</u>

Alternative 3. (irrigated land producing 3 tons alfalfa/acre)

Carrying capacity - 5,732 Animal Units		
Hay production required (1.5 tons/cow - 8,598 tons		
Acres irrigated land required - 2,866 acres		
Gross Revenue from fall sale of calves	\$531,815	
Cost of production	<u>259,717</u>	
Net Revenue to Reserve		<u>\$272,098</u>

Alternative 4. (irrigated land producing 3 tons alfalfa/acre)

Carrying capacity - 7,609 Animal Units		
Hay production required (1.5 tons/cow) - 10,413 tons.		
Acres irrigated land required - 3,771 acres		
Gross Revenue from fall sale of calves	\$705,963	
Cost of production	<u>344,764</u>	
Net Revenue to Reserve		<u>\$361,199</u>

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B. Grain Production - The only variable which will materially affect volume of cereal production is the use which will be made of Class 1V land. Class V and Class VI land are well suited to grain production. A substantial portion of Class 1V land is now cultivated including 4,900 acres of potentially irrigable land. Withdrawal of all or a portion of this land from cereal production would reduce volume accordingly.

An analysis of the revenue potential of each soil class follows:

	<u>SOIL CLASS</u>			
Annual yields/bu	<u>1V</u>	<u>V</u>	<u>VI</u>	<u>TOTALS</u>
Wheat	171,660	197,445	82,660	451,765 bus.
Barley	-----	373,829	117,377	491,206 bus.
*Gross Return	\$296,972	\$696,717	\$251,508	\$1,245,197
Cost of Production	182,819	252,341	79,236	514,396
Net Revenue to Reserve	114,153	444,376	172,272	730,801
Net Revenue per Acre	\$3.99	\$11.25	\$13.89	
Total Revenue from use of all soil classes - \$730,801.				
Total Revenue from Class V and VI soil only - \$616,648.				

* See Crop rotation - Class 1V summerfallow - wheat.

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C. Net Revenue potential by combination of alternatives for
 Beef and Cereal Production

Revenues from Beef Production		Revenues from Complimentary Cereal Production		Total Combined
Alternative	Net Revenue	Soil Classes		Net Revenue
		1V	V & VI	
1	\$161,778	\$114,153	\$616,648	\$892,579
2	215,561	----	616,648	832,209
3	272,098	102,608	616,648	991,354
4	361,199	4,800	616,648	982,647

The largest return to the Reserve can be obtained by use of Class 11 land for summer grazing supplemented by use of 2,866 acres of irrigated land to produce forage.

Following next in potential revenue is the use of Class 11 and 1V land for grazing and winter feed supplemented by use of 3,771 acres of irrigated land for winter feed.

Lowest return is obtained from use of Class 11 and 1V land for grazing and winter feed.

Total revenue could be substantially increased by use of fertilizer. A commonly accepted figure of return on fertilizer investment is \$3 for each dollar spent on fertilizer. Fertilizer used at recommended rates on cereals and irrigated alfalfa, would increase net revenue by about \$331,000.