APPENDIX B:

CULTURAL STUDIES

Prepared for:

NORTHCOAST ENVIRONMENTAL
ANALYSIS TEAM

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INTRODUCTION

Appendix B contains six separate studies performed under the "Cultural Studies" section of the Northcoast Environmental Analysis Team.

Overall responsibility for the Cultural Studies section was assumed by Terry Johnston, President, Johnston Associates Management Limited. All phases of the various research studies were directed by Dr. David Rothwell, also of Johnston Associates Management Limited.

The first chapter, Socio-Economic Analysis, was undertaken by Chuck Lazar, an independent sociological consultant and Assistant Professor of Sociology at the University of Victoria. The Attitude Survey was directed by Johnston Associates Management Limited with the actual field interviews being conducted by Joe Horsman, an independent consultant specializing in "free response" survey analysis. The Recreation, Residential Land Use, and Commercial and Industrial Land Use chapters were completed by employees of Johnston Associates Management Limited. And the final chapter on Existing Fishing and Harbour Related Activities was prepared by Sandy Constable and Greg Staples of Canadian Resourcecon Limited.

SUMMARY

CHAPTER 1

Socio-Economic Analysis

The present day population of the study area is 21,580 people with over 17,500 in Prince Rupert alone. The 1981 population of the study area is projected to be 26,560. The population structure of Prince Rupert is generally favourable to continued development. It is predominently young and stable with a labour force that is local, rather than imported.

Manufacturing industries are the largest employers, employing nearly 28 percent of the labour force, followed by service industries. The unemployment rate is high and underemployment is widespread.

The proposed port development would likely create 200 permanent jobs, the vast majority of which could be filled by local residents. These jobs plus any additional employment opportunities generated could alleviate some of Prince Rupert's employment problems. The type of job created would be compatible with the existing job and income patterns and should not be disruptive.

The total income derived from both construction and operation phases would have the greatest impact if the choice of site was Port Simpson. Facilities at this site would increase the gross income of the community by 4.5 percent through construction wages and 2.8 percent through permanent employment.

It is anticipated that the proposed facility would aid the long term development of Prince Rupert and would create little adverse impact on the community.

The choice of Kitson or Ridley Island would have little specific impact. The choice of Port Simpson would create a large impact of substantially altering the socio-economic profile of this small community of 1,300 people. Even the development of a road linkage between Port Simpson and Prince Rupert would dramatically change the community. A new port facility and subsequent urban development of Port Simpson would be an economic setback to Prince Rupert.

CHAPTER 2

Attitude Survey

Rather than utilize a formal questionnaire, data for the survey was obtained through a selected telephone survey, formal interviews with individuals usually representing organizational, professional, commercial or institutional groups, and informal interviews with citizens at large, normally in a social setting.

Responses were sought from local residents concerning their view of life in Prince Rupert, knowledge of the proposed port development and its effect, the nature of any issues facing the community, and their opinions on who would benefit from development in the city.

Approximately three out of every four residents in Prince Rupert favoured development of the town and its district. This estimate, based on a synthesis of sources, probably understates the degree of support for development, since the business and professional communities were under-represented in the data, and substantial support for development should exist there.

The majority of residents favouring development would have second thoughts about development plans that emphasized economics and promised nothing in the social field.

Although environmental groups are not currently strong in Prince Rupert it was felt they have the potential to form a significant opposition movement if development necessitates such action.

The native population is presently not a factor in the pro and cons of observable development. However, if development of the district were proposed on a scale that greatly affects the fishing industry, or which promises to compromise the quality and status of lands presently part of land claim expectations of the natives, their opposition could be expected.

People in Prince Rupert are generally development oriented and are optomistic (even anxious) about the future growth and development of their community. They are expecting something to happen. If an announcement cancelling the port were to be made, there would be strong public reaction.

There are no existing attitudes to where the port should be located. Anywhere in the near vicinity of Prince Rupert City would be acceptable. Location of the port facilities in Port Simpson, however, would receive the strongest negative reaction because it would be viewed as a splitting of potential social service resources. The

Indian community of Port Simpson would likely view a development there as favourable unless it threatened the fishing industry or crossed their land. Indians in Port Simpson would look very favourably on the idea of possible road access to Prince Rupert.

CHAPTER 3

Recreation

Recreational opportunities in the Prince Rupert study area are quite adequate. Residents have an opportunity for a diverse range of outdoor activities including, downhill and cross-country skiing, boating, sport fishing, scuba diving, camping and picnicking.

General outdoor recreation opportunities in the study area are limited as a result of the combination of climatic and physical characteristics, including heavy rainfall, steep topography, dense forest and low sea water temperatures. The inland portion of the study area is influenced significantly by these factors, leaving the shoreline areas as the locations with the greatest future potential for outdoor recreation. The low water temperatures negate ocean swimming, an activity for which there is high demand.

The west side of the Tsimpsean Peninsula, north of Prince Rupert Harbour, and the shoreline of Digby Island offer the greatest potential for intensive recreational use because of the existence of very good beach formations and suitable backshore conditions. However, these resources cannot be utilized easily due to conflicts with Indian Reserves, airport activities and the limitations presented by lack of road access.

Of the five port location alternatives, the Port Simpson site is the only site to offer potential for positive recreational advantages.

CHAPTER 4

Residential Land Use

Approximately 4,570 residential units (including 120 mobile homes) exist today in Prince Rupert. This represents a shortage of 425 units based on present population levels. Roughly 100-130 of this number would be fee simple dwelling units and 250 are rental units.

Although faced with difficult building and foundation conditions, the present urbanized area encompassing the City of Prince Rupert can absorb approximately 1,160 additional units of varying types without annexation and without extending municipal services into large, previously unserviced and difficult-to-develop areas. In addition, it is estimated that several hundred housing units can be developed in the Port Edward area after appropriate municipal services are installed.

Current high levels of interest rates have increased the cost of traditionally acceptable detached single family dwellings beyond the budgets of typical families in Prince Rupert. With a contracted market, builders have cut back on starts to an extent that will be increasingly felt in the coming months. Although a reasonable number of dwelling units continues to be offered for sale in Prince Rupert, asking prices are disproportionately high relative to average incomes. It is estimated that the cost of a typical acceptable dwelling must be reduced by approximately 20 percent - or incomes increased by approximately 24 percent - before the average Prince Rupert family is able to afford a detached single family dwelling.

Typical of many British Columbia communities, Prince Rupert is currently faced with an extreme shortage of acceptable rental housing. As a result, virtually all transient and tourist accommodation facilities are filled with monthly renters. The development of approximately 150 apartment units in the Prince Rupert area is expected to only partially relieve this shortage - and these units will not be available until at least year end 1975, possibly later.

Because much of the labour for construction and operation of the port is expected to come from the local market, the impact of the new facilities will not be great. There will, however, be some outside labour for different periods of the construction program as well as a number of permanent jobs going to outside people. This combined with present housing shortages and increased development in other sectors of the economy will continue to place stress on residential land use. Thus, the addition of approximately 300 construction jobs and, subsequently, 200 permanent jobs related to the development of expanded port facilities, suggests that a program should be instituted to develop acceptable rental accommodation and permanent, ownership types of accommodation if existing housing problems are not to be aggrevated by the expansion of the port. Some of the rental accommodation would eventually be vacated by construction workers leaving the community when the project is completed. Existing rental demand can be expected to fill all units as they then become vacant.

Some major employers in the Prince Rupert area have resorted to direct involvement in the provision of housing for permanent employees in order to compete with other communities to attract desired new workers.

Except for Port Simpson, there are few site specific impacts on residential land use. If Port Simpson is chosen as a site a temporary camp will be necessary to house the construction workers. Because of the problems of access and distance, many of the permanent employees will likely want to live in Port Simpson. This necessitates the building of social (schools, hospitals, etc.) and physical services (sewer, water, roads, etc.) in Port Simpson. More retail and commercial facilities will develop. A separate community at Port Simpson will be at the expense of Prince Rupert.

CHAPTER 5

Commercial and Industrial Land Use

Surveys of the Prince Rupert area confirm that the city is presently served by an excess of both retail and office space. Local interests appear to have prepared for a significant expansion in population and purchasing power. With completion of new shopping centres currently under construction, the Prince Rupert trading area will be served by automotive dealerships). This compares very favourably with similar ratios for other Western Canadian centres.

Although Prince Rupert has lacked adequate quality office space until recently, there now appears to be a surplus of such space with the addition of approximately 70,000 square feet within the past 18 months. With current vacancy rates of approximately 30 percent, it is anticipated that the present office space inventory in Prince Rupert will be adequate - barring major expansionary moves requiring substantial office space areas - for three to five years.

Substantial areas within the vicinity of Prince Rupert exist which could support industrial expansion of the type presently in the area. Assembly problems would be minimized as a result of existing large scale government ownership. Some of these advantages would be offset by high costs of accessing, developing and servicing some of these properties as a direct result of difficulties imposed by terrain, soil condition and climate.

If the port development does not proceed, the community will be in considerable difficulty. Having built in anticipation of rapid expansion, the community will suffer financial hardship if a recession in the local economy occurs. Almost the same effect will occur if Port Simpson is chosen as a site. The development of a separate community for the port will detract from the agglomeration effect which Prince Rupert is trying to develop.

CHAPTER 6

Existing Fishing and Harbour Related Activities

The value of the commercial fishing industry to the Prince Rupert area is represented by the primary or direct benefit (income) accruing to local residents from employment in fishing or fish processing activity; plus the indirect benefit, (income) which results from the expenditure of fishing income in the local economy. The value of direct and indirect income associated with the fishing industry is as follows:

Direct Benefit	
Income of fishermen and processing plant employees	$19,465,000
Indirect Benefit	
Income of residents employed in service functions	$19,465,000
Total direct and indirect benefit from fishing industry	$38,930,000

The value of sport fishing to the Skeena region is the sum of primary benefits accruing to resident anglers due to free fishing opportunities plus the net benefits derived from expenditures by non-resident anglers. The value of these components is as follows:

Resident angling	$1,663,000
Non-resident angling	139,000
Total value of sport fishing	$1,802,000

Approximately 450,000 pounds of salmon are harvested annually from the Skeena basin and adjacent tidal waters by native people involved in food fishing. The economic value of this catch is estimated to be $616,000.

The projected increase in deep sea vessel traffic through the Port of Prince Rupert may lead to the development of vessel provisioning activity in the city. It is expected that this activity would generate an additional $100,000 of income in the community annually.

CHAPTER 1

SOCIO-ECONOMIC ANALYSIS

1.0 The purpose of this section is to investigate the socio-economic character of the existing Prince Rupert population. Through the analysis of census information and field research it was possible to estimate the anticipated effects of future development on the social character of Prince Rupert. Generalized impacts are presented in this appendix, but more specific opinion is contained in the main report.

1.1 Population

The population of the study area in the 1971 Census of Canada is listed as 17,940 persons consisting of Prince Rupert (15,477), Port Edward (1,019), Port Simpson (965), and scattered areas (209). The ratio of men to women in the study area is 115.4 men/100 women, which although higher than that which would be found in metropolitan centres, indicates that the population structure is reasonably stable, and there are few major distortions. Many northern communities suffer from an extreme preponderance of men. One reason for the relatively even distribution between men and women in Prince Rupert can perhaps be the development of the service sector and the high proportion of women employed in service industries[1].

The stability of Prince Rupert population is further indicated by the age structure of the population shown in Table 1-1. Again we find the situation not radically different from the Canadian pattern. This is graphically shown in the population pyramid, Figure 1-1.

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[1] Clerical sales and services employ over 32 percent of the Prince Rupert labour force, with women comprising a large proportion of employees in these occupations.

FIGURE 1-1

POPULATION BY AGE AND SEX

Total Population: 18,000
Males - 9625 (53.47%)
Females - 8375 (46.53%)
Sex Ratio = 115.43
Dependency Ratio = $\frac{6680}{11,320} \times 100 = 59.01$

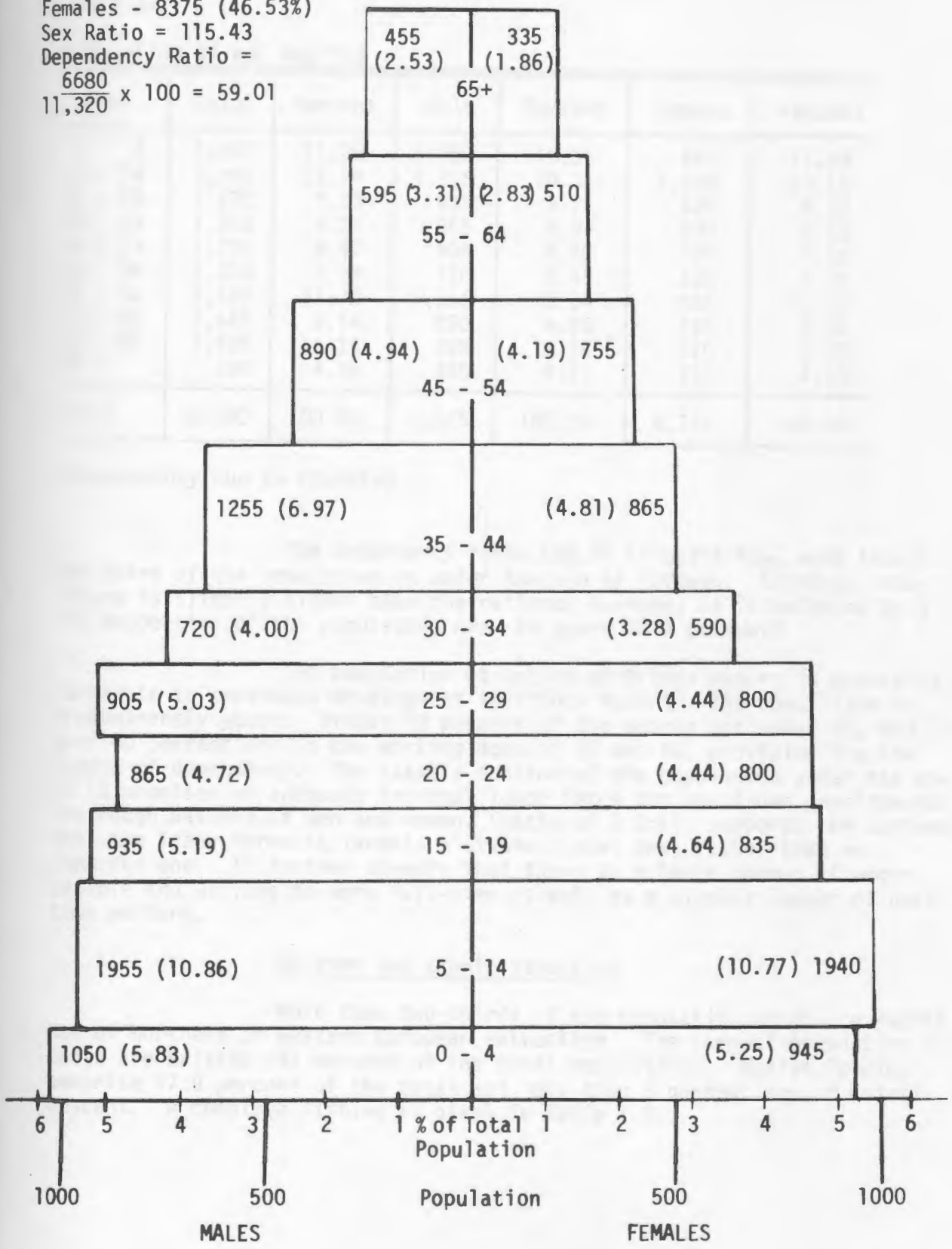

TABLE 1-1

POPULATION BY AGE AND SEX

Age	Total	Percent	Male	Percent	Female	Percent
0 - 4	1,995	11.08	1,050	10.91	945	11.28
5 - 14	3,895	21.64	1,955	20.31	1,940	23.16
15 - 19	1,770	9.83	935	9.71	835	9.97
20 - 24	1,665	9.25	865	8.99	800	9.55
25 - 29	1,705	9.47	905	9.40	800	9.55
30 - 34	1,310	7.28	720	7.48	590	7.04
35 - 44	2,120	11.78	1,255	13.04	865	10.33
45 - 54	1,645	9.14	890	9.25	755	9.02
55 - 64	1,105	6.14	595	6.18	510	6.09
65 +	790	4.39	455	4.73	335	4.00
Total	18,000	100.00	9,625	100.00	8,375	99.99*

*Discrepancy due to rounding

The dependency ratio (59.3) is quite low, even though one third of the population is under the age of fifteen. Although this figure is slightly higher than the national average, it is balanced by a low proportion of the population over 65 years (4.4 percent).

The population structure of Prince Rupert is generally favorable to continued development in Prince Rupert. The population is predominently young. Almost 70 percent of the people are under 35, and yet over 60 percent are in the working ages of 15 and 65, providing the low burden of dependency. The sizable portion of the population under the age of 15 promises an adequate internal labor force for continued development. The rough balance of men and women, (ratio of 1.2:1), supports the contention that the labor force is largely a stable, local one, rather than an imported one. It further appears that there is a large number of women capable and willing to work full-time as well as a sizable number of part-time workers.

1.1.1 Origins and Ethnic Structure

More than two-thirds of the population of Prince Rupert are of Northern or Western European extraction. The largest proportion of these are British (42 percent of the total population). Native Peoples comprise 17.9 percent of the total and less than 5 percent are of Asiatic descent. A complete listing is given in Table 1-2.

TABLE 1-2

POPULATION BY NATIONAL ORIGIN

Place of National Origin	Total	Percent	Male	Percent	Female	Percent
British Isles	7,505	41.7	4,070	42.1	3,435	41.2
French	760	4.2	440	4.3	350	4.2
Asiatic	790	4.4	420	4.3	350	4.2
Austrian	80	.4	55	.6	25	.3
German	1,140	6.3	575	5.9	565	6.8
Hungarian	185	1.0	110	1.1	75	.9
Italian	810	4.5	420	4.3	390	4.7
Jewish	10	.1	10	.1	0	0
Indian-Eskimo	3,215	17.9	1,630	16.9	1,585	19.0
Dutch	305	1.7	160	1.6	145	1.7
Polish	240	1.3	120	1.2	120	1.4
Russian	80	.4	40	.4	40	.4
Scandinavian	1,420	7.9	790	8.2	630	7.6
Ukranian	505	2.8	270	2.8	235	2.8
Other/Unknown	975	5.4	555	5.7	420	5.0
Total	18,000	100.0	9,665	100.0	8,335	100.0

Native groups appear to be reasonably well integrated, but discrimination is practised on some levels by whites towards natives and vice versa. The fact that less than two percent of the population report speaking an Indian language at home (the proportion speaking Eskimo in Prince Rupert may be comfortably ignored) is due to the acculturation of the native population (see Table 1-3).

TABLE 1-3

LANGUAGE SPOKEN AT HOME

Language	Total	Percent	Male	Percent	Female	Percent
English	16,455	91.6	8,835	92.0	7,620	91.1
French	60	.3	45	.5	15	.2
German	130	.7	55	.6	75	1.0
Indian-Eskimo	230	1.3	125	1.3	105	1.3
Italian	365	2.0	170	1.8	195	2.3
Dutch	20	.1	10	.1	10	.1
Polish	5	-	5	-	0	0
Ukranian	15	.1	5	-	10	.1
Other	685	3.8	355	3.7	3,330	3.9
Total	17,965	99.9*	9,605	100.0	8,360	100.0

*Discrepancy due to rounding

1.1.2 Mobility

Of the 18,000 people living in Prince Rupert in 1971, 58.9 percent were born in British Columbia, and another 21.3 percent were Canadians born outside the province, leaving less than 20 percent who have come to Prince Rupert from outside Canada. If population over the age of five is examined, 66.3 percent of the 16,040 people over the age of five are classified as non-migrants, while 19.7 percent have moved to Prince Rupert from other places within British Columbia. There appears to be no sex differences in migration with 63.8 percent of males and 62.7 percent of females classified as non-migrants (see Table 1-4).

TABLE 1-4

PLACE OF BIRTH

Place of Birth	Total	Percent	Male	Percent	Female	Percent
B.C.	10,605	58.9	5,595	58.2	5,010	59.8
Canada (outside of B.C.)	3,835	21.3	2,075	21.6	1,760	21.0
Other	3,560	19.8	1,955	20.3	1,605	19.2
Total	18,000	100.0	9,625	100.1*	8,375	100.0

*Discrepancy due to rounding

TABLE 1-5

MIGRATION: PERSONS OVER FIVE YEARS OLD

	Total	Percent	Male	Percent	Female	Percent
Non-Migrants						
Same Dwelling	5,775	36.0	3,085	35.8	2,690	36.2
Different Dwelling	4,375	27.3	2,410	28.0	1,965	26.5
Migrants						
Within B.C.	3,155	19.7	1,685	19.6	1,470	19.8
Newfoundland	45	.3	15	.2	30	.4
P.E.I.	0	.0	0	.0	0	.0
Nova Scotia	185	1.2	75	.9	110	1.5
New Brunswick	20	.1	15	.2	5	.1
Quebec	110	.7	65	.8	45	.6
Ontario	415	2.6	240	2.8	175	2.4
Manitoba	110	.7	50	.6	60	.8
Saskatchewan	270	1.7	145	1.7	125	1.7
Alberta	350	2.2	175	2.0	175	2.4
Yukon	35	.2	25	.3	10	.1
N.W.T.	5	.1	0	.0	5	.1
Outside Canada	1,060	6.6	550	6.4	510	6.8
No Information	505	3.1	260	3.0	245	3.3
Total	16,040	100.0	8,615	100.0	7,425	100.0

It is worth noting that 56.9 percent of the population classes of non-migrants have lived in the same dwelling for at least five years. This, coupled with a migration rate of 35-37 percent over a five year period seems to corroborate Horsman's[1] survey findings of a generally high level of satisfaction with Prince Rupert. If one bears in mind the circular migration patterns[2] of much of the "transient" population of northern centres, the migration rate is for practical purposes, lower than it appears.

1.1.3 Marital Status

The high proportion of the population married in Prince Rupert provides further evidence of the stability of the community. Almost two thirds of the population over the age of 15 are married - 60.7 percent of males and 71.4 percent of females. The single population represents 28.3 percent of the total population over 15 years of age. Of the total population, 34.6 percent are single males over 15 and 20.7 percent are single females (see Table 1-6).

[1] See Chapter 2.

[2] Men often move regularly through three, four, or more different towns, working for a while in each one before moving along and repeating the same circuit in a regular fashion.

TABLE 1-6

MARITAL STATUS
POPULATION OVER 15 YEARS OLD

Marital Status	Total	Percent	Male	Percent	Female	Percent
Single	3,420	28.3	2,290	34.6	1,130	20.7
Married (or Separated)	7,890	65.3	4,015	60.6	3,875	71.0
Divorced	255	2.1	160	2.4	95	1.7
Widowed	510	4.2	155	2.3	355	6.5
Total	12,075	99.9*	6,620	99.9*	5,455	99.9*

*Discrepancy due to rounding

While these figures are high they seem much higher when we consider that of the 12,075 people over 15 years old, 3,435 of them or 28.4 percent are under 25 and 1,770 or 14.7 percent of them are under the ago of 20. If we assume for example that the 1,770 people under 20 are not married, then the proportion of population over 20 and married would rise 76.6 percent[1].

1.1.4 Labour Force

In 1971 there were 11,320 people in Prince Rupert between the ages of 15 and 65. Of these, 7,785 people were considered to be in the labour force, with 7,670 classified as "experienced" workers. The labour force was composed of 69 percent males and 31 percent females.

It can be seen in Table 7 that the greatest proportion of workers are employed in clerical occupations (12.3 percent), services (12.0 percent) and processing (11.6 percent), with 8.9 percent of the labour force employed in primary industries. Men are mainly employed in primary industries (12.3 percent), processing (12.0 percent) and as skilled labour, machinists, etc. (11.0 percent). An additional 9.9 percent of men are employed in the construction industry and 9.1 percent in transportation. Women are overwhelmingly concentrated in a few occupations: 29.9 percent are in clerical positions and 18.9 percent are in service industries, while sales positions account for an additional 12.3 percent and processing for 10.8 percent.

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[1] $\frac{\text{Total Married}}{\text{Total Population minus Persons under 20 and Unmarried}} = \frac{7,890}{(12,075 - 1,770)} = 76.6$ percent

TABLE 1-7

EXPERIENCED LABOUR FORCE BY OCCUPATION

Occupation	Total	Percent	Male	Percent	Female	Percent
Mangement-Administration	225	2.9	185	3.5	40	1.6
Teaching	230	3.0	80	1.5	150	6.2
Medical	230	3.0	55	1.0	175	7.3
Technical, etc.	195	2.5	160	3.0	35	1.5
Clerical	940	12.3	220	4.2	720	29.9
Sales	630	8.2	335	6.4	295	12.3
Services	920	12.0	465	8.8	455	18.9
Farming-Ranching	10	.1	10	.2	0	0
Other Primary	685	8.9	650	12.3	35	1.5
Processing	890	11.6	630	12.0	260	10.8
Machining, etc.	600	7.8	580	11.0	20	.8
Construction	520	6.8	520	9.9	0	0
Transportation	505	6.6	480	9.1	25	1.0
Other	535	7.0	510	9.7	25	1.0
N/A	555	7.2	385	7.3	170	7.1
Total in Experienced Labour Force	7,670	100.0	5,265	100.0	2,405	100.0

When occupations are presented by industry as in Table 1-8, manufacturing is by far the largest employer, with nearly 28 percent of the experienced labour force. Community, business and personal services follow, with almost 19 percent of the total workforce. Transportation, communication and other utilities employ over 13 percent while trade represents 12 percent. Agriculture (.10 percent); mining, quarries, and wells (.20 percent); finance, insurance and real estate (1.8 percent) are Prince Rupert's smallest industries.

Males mostly work in manufacturing industries (33 percent of the male workforce) followed by transportation, communication and utilities (over 16 percent). Over 40 percent of the female labour force worked in community, business, and personal services. Manufacturing and trade industries were the second largest employers of women, each with 17 - 18 percent of the female workforce.

TABLE 1-8

PERSONS EMPLOYED BY INDUSTRY

Industry	Total	Percent	Male	Percent	Female	Percent
Agriculture	10	.1	5	.1	5	.2
Forestry	225	2.9	210	4.0	15	.6
Fishing-Trapping[1]	285	3.7	270	5.1	15	.6
Mining-Wells	15	.2	15	.3	0	.0
Manufacturing	2,140	27.9	1,725	32.5	415	17.6
Construction	385	5.0	365	6.9	20	.8
Transport-Communication	1,020	13.3	865	16.3	155	6.5
Trade	890	11.6	475	9.0	415	17.5
Finance	130	1.8	60	1.1	70	3.0
Services	1,450	18.9	495	9.3	955	40.3
Public Administration	630	8.2	470	8.9	160	6.8
N/A	490	6.4	345	6.5	145	6.1
Total	7,690	100.0	5,300	100.0	2,370	100.0

The labour force in Prince Rupert tends to be better educated than the general population despite the general level of education. The average grade in school obtained is 11-13, with over 3,000 persons acquiring some post-secondary education. Over 300 people had university degrees and one third of these were advanced degrees. Furthermore, 1,080 persons, 505 men and 575 women, had completed vocational courses and 855 people, 705 men and 150 women had completed apprenticeships (see Table 1-9).

TABLE 1-9

LABOUR FORCE EDUCATION

Grade Attained	Total	Percent	Male	Percent	Female	Percent
Less than 5	275	3.5	210	4.0	65	2.6
5 - 8	1,595	20.4	1,185	22.4	410	16.3
9 - 10	1,940	24.8	1,365	25.8	575	22.9
11 - 13	680	8.7	370	7.0	310	12.3
Post Secondary	3,015	38.6	1,935	36.5	1,080	42.9
University Degree	305	3.9	230	4.3	75	3.0
Total	7,810	99.9*	5,295	100.0	2,515	100.0

*Discrepancy due to rounding.

[1]The number of actual fishermen has been estimated to be 1,400 in 1971, the number reported in the Census (285) only reflects employment where people earn the majority of their income. Only 15 people from Port Simpson listed their occupations as fishermen.

1.1.5 Employment Rates

At the time of the census in the summer of 1971, the unadjusted unemployment rate in Prince Rupert was 9.2 percent (see Table 1-10).[1] The unemployment rate was higher among women (11.4 percent) than men (8.2 percent). While nearly 66 percent of the males worked full-time, only 44 percent of the females did so. Similarly, more men were self-employed than women.

TABLE 1-10

EMPLOYMENT ACTIVITY, 1970

	Total	Percent	Male	Percent	Female	Percent
In Labour Force	7,875	100.0	5,430	100.0	2,445	100.0
Employed	7,110	90.3	4,950	91.2	2,160	88.3
Mainly Full Time	4,210	59.2	3,255	65.8	955	44.2
Self-Employed	395	5.6	325	6.6	70	3.2
Unpaid Family Workers	105	1.5	20	.4	85	3.9
Other Employed	2,400	33.8	1,350	27.3	1,050	48.6
Unemployed	725	9.2	445	8.2	280	11.5
Inexperienced Labour Force	7,725	98.1	5,345	98. 4	2,380	97.3
Worked in 1970	7,510	97.2*	5,240	98.0*	2,270	95.4*
Worked 40-52 wks	4,835	64.4*	3,585	68.4*	1,250	55.1*
Full Time	4,435	91.7*	3,430	95.7*	1,005	80.4*
Not in Labour Force	4,180	100.0	1,190	100.0	2,990	100.0
Worked Since January 1, 1970	1,245	29.8	475	39.9	770	25.8
Worked in 1970	1,215	97.6*	465	97.9*	750	97.4*
Did Not Work Since January 1, 1970	2,910	69.6	715	60.1	2,195	73.4
Worked Prior to January 1, 1970	1,680	57.7*	365	51.0*	1,351	59.9*

Table 1-10 also indicates the extent of seasonal employment in the area. Of the experienced labour force 97 percent worked in 1970, with less than 65 percent of that group working 40-52 weeks. Hence, 35.6 percent of labour force members were not permanent employees. More women (45 percent) than men (32 percent) were seasonally employed.

[1] Because of inaccuracies in Census data, the employment rate of 9.2 percent may be suspect.

The extent to which this under-employment is voluntary is difficult to ascertain. It is worth noting that 29.8 percent of persons listed as not being in the labour force did work at some time in 1970. Periodic, or episodic unemployment is reportedly high with many survey respondents feeling that Prince Rupert is suffering from a labour shortage (Chapter 2, Table 2-4). This same phenomenon from the worker's point-of-view was expressed as "more and wider range of employment opportunities" and Prince Rupert is seen as a town of "good employment and income opportunity" (Horsman, Chapter 2).

1.1.6 Family and Household Structure

An analysis of family and household structure further confirms the stable community nature of Prince Rupert. The 18,000 people of Prince Rupert live in 4,765 households for an average of 3.78 persons per household. Of these, 3,825 are family households and only 925 are non-family households. Almost all of the family households (96.7 percent) are single family households (see Table 1-11).

TABLE 1-11

HOUSEHOLD CHARACTERISTICS

	Number	Percent
Total Households	4,765	100.0
Family Households	3,825	80.3
One Family	3,700	77.6
Two or More Families	125	2.6
Non-Family Households	925	19.4
Households with One or More Lodgers	435	9.1

In 1971 Prince Rupert had 3,975 families containing 15,175 persons yielding an average of 3.82 persons per family. There were 7,485 children in families aged 0 to 24 years for an average of 1.88 children per family. If we use as the numerator, however, the 5,890 children in Prince Rupert aged 0 to 14 years, the average number of children per family is 1.45 (see Table 1-12).

TABLE 1-12

FAMILY CHARACTERISTICS

Total Families	3,975
Total Persons in Families	15,175
Average Persons per Family	3.82
Total Children (0-14 years)	5,890
Average Children per Family	1.45
Total Children (0-24 years)	7,485
Average Children per Family	1.88

Table 1-13 shows the transition from school attendance to labour force participation among the population aged 15 to 24. In the 15-18 year age group, 36.3 percent are engaged in the labour force and are at school. Only 7.1 percent, however, are engaged only in the labour force. In the 19-24 year age group, 75 percent are engaged in the labour force with 48.4 percent engaged only in the labour force, and not attending school. It would seem then that a sizeable portion of Prince Rupert's young are content to remain and work there after they have completed their education.

TABLE 1-13

CHILDREN IN FAMILIES

	Number	Percent	Number	Percent
Total Children in Families (0-24) years)	7,485	100.0		
Under 6 years	2,280	30.1		
6 - 14 years	3,485	46.1		
15 - 18 years	1,130	14.9	1,130	100.0
At School			595	52.7
In Labour Force			80	7.1
At School and in Labour Force			330	29.2
Neither			125	11.1
19 - 24 years	620	8.3	620	100.0
At School			70	11.3
In Labour Force			300	48.4
At School and in Labour Force			165	26.6
Neither			85	13.7
Average Number of Children per Family	1.88			

1.1.7 Family Income

Of the 3,890 families responding in Prince Rupert, most had two or more income earners in 1970, with almost half of them (49.6 percent having two earners) (see Table 1-14).

TABLE 1-14

FAMILY INCOME RECIPIENTS

Number of Family Income Recipients	Number of Families	Percent of Total Families
0	5	.1
1	1,390	35.7
2	1,930	49.6
3 or more	565	14.5
Total	3,890	99.9*

Discrepancy due to rounding

The fact that most families have more than one income can account for the high average incomes obtained in Prince Rupert. The average income per family was found to be $10,850* with the average income of family heads being $8,100. The average income for non-family persons was lower than income for family heads, averaging $4,800.

Per capita income was computed on the basis of total family and non-family income, as was income per household.

$$\text{P/C Income} = \frac{\text{Total family and non-family income}}{\text{Total Population}}$$

$$= \frac{42,339,675 + 11,459,600}{18,000}$$

$$\text{P/C Income} = \$6,000^*$$

$$\text{Income/Household} = \frac{\text{Total Income}}{\text{Household}}$$

$$= \frac{53,779,275}{4,805}$$

$$\text{Income/Household} = \$11,200^*$$

*Incomes rounded to the nearest $50

1.2 Impact

The basic impact of the bulk handling port will be with the number of people affected and the amount of money generated.

1.2.1 Population

The study area presently contains a population of about 21,580 or about 20 percent more people than in 1971. The current labour force based on a 60 percent participation rate is about 12,900 persons. Table 1-15 presents 1974 population data togehter with the projected population for the Prince Rupert area (projections are based on the assumption that the industrial structure will remain the same) and current unemployment rates.

TABLE 1-15

POPULATION, LABOUR FORCE AND UNEMPLOYMENT

	1971 Population	1974 Population	Labour Force	UIC Claim	% Unemployment	1981 Population
Prince Rupert	15,477	17,500	10,500	1,559	14.8	20,160
Port Edward	1,019	2,400	1,400	175	12.5	4,500
Port Simpson	965	1,300	780	132	16.9*	1,500
Other	209	300	228	-	-	400
Total	17,940	21,580	12,908		14.5	26,560

*Because many Indians do not claim, the UIC office in Prince Rupert estimates that this rate could be as high as 30 percent

1.2.2 Income

Average family income in June 1971 was about $11,100. Increasing family income to 1974 levels yeilds an average income of $14,200 For 1974, the total gross income in the Prince Rupert area would be $87,553,143.

1.2.3 Population Impact

For both the construction and operation phase, the vast majority of jobs could be filled by Prince Rupert residents. The 200 permanent jobs in the operation would represent only 1.3 percent of the labour force. If the 200 dock-related jobs were to generate an additional

300 jobs in the community, this would represent an addition of 3.1 percent to the labour force, in the place where unemployment is high and under-employment is wide spread.

Many of the construction jobs could be filled by local labour. The current labour force is estimated to be about 13,000. This number, however, only represents permanent resident labour force. The UIC office estimates that this number is doubled during the summer months because of seasonal employment.

In general, the population of Prince Rupert is young, growing, relatively stable, and reasonably satisfied with life in Prince Rupert. Development is viewed favourably, and the population is capable of supporting it, both morally and physically. Much of the work can be performed by inhabitants of Prince Rupert, therefore the development may alleviate some of Prince Rupert's apparent employment problems. Both the job structure of the construction and operation phases of the development are compatible with existing job and income patterns in Prince Rupert, and should not prove to be very disruptive.

1.2.4 Income Impact

Based on the Swan-Wooster engineering reports of size of work force plus current union labour rates (in Prince Rupert), estimates were made of total income derived from construction and operations for Kitson, Ridley, and Port Simpson.

Table 1-16 outlines wage cost for three sites. The highest 12 month period was calculated to determine the highest impact. Port Simpson would create the most impact by increasing gross income by 4.5 percent. This is partially off-set by the fact that some labour will be imported on a temporary basis and the wages will not stay in the community.

TABLE 1-16

IMPACT OF CONSTRUCTION WAGES

	Highest 12 Month Wage	% Impact*	Total Wages	% Impact**
Ridley	$2,393,837	2.5	$5,515,567	1.6
Kitson	3,109,165	3.2	6,821,859	2.0
Port Simpson	4,372,912	4.5	9,741,560	2.5

*Based on 1978 population and incomes
**Adjusted for total length of project.

Over the duration of the project (42 to 48) months, the impact of construction is not large.

Permanent employment of 200 people in the operation of the port will create about $2,970,000 in yearly wages (at today's rates). This will have an impact of only 2.8 percent on total income of the community projected for 1981 population using current income levels.

1.2.5 Summary

The bulk handling port will help to further the continued development of Prince Rupert. In itself, neither the construction or operation phases, will have a major impact on the total community.

CHAPTER 2

ATTITUDE SURVEY

2.0 The objectives of this section were:

- to discover the prevailing attitudes in the Prince Rupert local population toward the prospective growth patterns which would evolve in the region.
- to obtain an estimate of how citizens presently evaluate their city
- to identify the concerns that the future bulk port facilities have generated in the local residents.

Local opinion was to be gathered from non-directed interviews designed to reach a representative cross-section of Prince Rupert.

2.1 Methodology

It was concluded that a formal questionnaire, with its rigorous structure, and dependence upon the exactness of the sample design, would be unsuitable for use in an environment where factual competence of the population was unknown, and where the socio-economic structure of the community was subject to a number of ambiguities. A formal list of questions was difficult to structure without a thorough knowledge of the popular level of factual awareness. Apart from information obtained by staff members who had visited the district, the back-files of the Prince Rupert newspaper were the only other source of information on which to estimate the public information level. Additionally, the high transiency rate in the community weakened the contribution that otherwise could have been made by the census.

To obtain a general evaluation of the prevailing public attitudes toward the present living environment, as well as impending development trends, a program of non-directed interviews, thematically controlled by a short set of basic questions was selected as the survey approach. A set of population profiles was prepared on which to base sample selection.

In order to avoid interviewing a majority of business-professional, organizational and institutional workers, a telephone survey of households in Prince Rupert was conducted. It was also felt that the telephone survey would help counter the possible over-weighting of the transient population found in the downtown area where most of the personal interviews were conducted.

This report, then, is based on three primary sources of information.

1. The telephone survey, comprising 54 interviews with residents listed in the local telephone book and selected according to sex and location criteria.

2. Formal interviews with citizens, usually, but not invariably part of the organizational, professional, commercial, or institutional structures, and generally conducted in the respondent's place of employment or business.

3. Informal interviews with citizens at large, conducted generally, but not invariably in public areas.

2.1.1 Interview Procedures

Personal interviewing fell into two classes, formal and non-formal. The formal interviews were conducted within a defined situation (in the respondent's office or place of business). The non-formal interviews were usually within a more social context.

In all cases the interviewers were guided by a short list of questions that were intended to stimulate free responses. The interviews were directed at obtaining two important viewpoints: first, the respondent's own opinion of the Prince Rupert situation; and secondly, the respondent's views of the general or popular view. The survey questions are listed in Table 2-1.

TABLE 2-1

SURVEY QUESTIONS

1.	What are the things you like (dislike) about Prince Rupert?
2.	What do you know about the proposed port development?
3.	How do you think development will affect you, other citizens, Prince Rupert.
4.	What problems will face Prince Rupert in the future?
5.	Who will benefit the most (least) from development in Prince Rupert?

Specifically, the formal interviews were conducted with businessmen, government officials, civic officials, union executives, managers, and members of the population at large. These included environmentalists, teachers, teaching administrators and two groups of Prince Rupert Senior High School students.

The informal interviews attempted to substantiate whether the formal interviews were representative of the general public. In addition, they probed for concerns, attitudes, and opinions that were not evident from the formal interviews. A list of subjects for formal and informal interviews is provided in Annex B-1. Interviews were conducted in Prince Rupert and Port Edward but not in Port Simpson. The decision not to conduct interviews in the small community of Port Simpson was based on the desire to maintain a low and unobtrusive public profile. Port Simpson is a small, isolated, close knit, native community where such activities as interviewing would attract the interest of the whole community along with its leaders. Knowledge of the study would then tend to spill over into Prince Rupert and rouse further interest. Interviews were conducted, however, with Port Simpson residents or exresidents in locations other than Port Simpson.

2.1.2 Data Analysis

The data from the telephone survey was analyzed with a simple content analysis procedure, abstracting the salient issues and dividing them into favourable/critical classes in context. Additionally, some attitudes toward specific questions were abstracted and presented with a simple male-female distribution.

The analysis of the formal and informal interviews, because of the type of data, could not be of a highly sophisticated nature. The analysis concentrated on a descriptive presentation ratio. It was decided to record what the respondents said rather than to enquire into what they meant. (See Annex B-2 for examples of interviews).

2.1.3 Validity of the Analysis

It is the concern of this study to discover and understand the extent to which the viewpoints and opinions recorded from the interviews are typical of the town. To accomplish that with statistical confidence would require a rigorously designed and executed study. The presence of common concerns, however, is so pronounced and the scope of those concerns so encompassing, that it would appear that no significant body of opinion was missed.

2.2 Survey Results

The telephone survey, covering 54 residents, was almost evenly balanced between male and female respondents. The majority of respondents were less than 40 years of age and had resided in Prince Rupert for less than 10 years.

Some general attitudes, abstracted from the telephone survey data, are summarized in Table 2-2.

Men are apparently more satisfied and less dissatisfied with the livability of Prince Rupert than are women. The women, in fact, divide almost equally on this point, with only a slight majority expressing satisfaction with Prince Rupert as a place to live. This may be due to the fact that women are generally subjected much more frequently and unavoidably to the various negative factors of climate, isolation, and limited activity opportunities. In addition they face more immediately the stresses that rise out of high costs and poor housing.

TABLE 2-2

SELECTED GENERAL ATTITUDES[1]

Attitude	Male	Female	Total
Likes living in Prince Rupert	22 (75%)[2]	13 (52%)	35 (65%)
Does not like Prince Rupert	5 (17%)	12 (48%)	17 (31%)
Favor development	23 (79%)	17 (68%)	40 (74%)
Opposes development	6 (21%)	3 (12%)	9 (16%)
Development will favor developers and business	6 (21%)	7 (28%)	13 (24%)
Development will favor citizens in general	17 (59%)	12 (48%)	29 (54%)
Is aware of Port development	23 (79%)	12 (48%)	35 (65%)
Is not aware of Port development	3 (10%)	8 (32%)	11 (20%)
Total	29(100%)	25(100%)	54(100%)

[1]Not always comprehensive since not all interviewees revealed preferences.

[2]Percentages in parenthesis are vertical percentages.

In any case, for whichever set of reasons, women constitute a substantial pool of discontent in Prince Rupert, and any future planning should take special steps to find out exactly what the problems are and to involve the women in finding solutions.

Men are more favorably disposed toward development than women are, although both groups favor development by substantial majorities. On the basis of this data, approximately three-quarters of the respondents favored development, while only 16 percent expressed direct opposition to development.

Women, however, are more cynical in their assessment of who will benefit more from development. While a majority of both men and women thought the citizen at large would benefit more from development than the developers would, the ratio between the values for women were less than 2 : 1 compared with the almost 3 : 1 ratio found in the corresponding male statistics[1].

In the process of seeking information respondents were asked if they were aware of a port development in Prince Rupert. Because of the concern for confidentiality at the time and the desire not to provide a false stimulus, no specific mention was made of a bulk handling port. The intent was to maintain a low public profile and not arouse public and political interest in the study. It would appear that many people interpreted "port development" as a general cargo facility located in the present harbour area.

The information level pertaining to port development was comparatively high for men. Seventy-nine percent said they were aware of the proposed development as compared to only 48 percent of the women. Approximately one third of the women were not aware of <u>any</u> port development plans, compared with only 10 percent of the men.

2.2.1 General Issues and Concerns

The survey also attempted to encourage general discussion of local issues and concerns in Prince Rupert with respect to the planned port development. Results included distinct favourable and unfavourable reactions.

Favourable statements by interviewees concerning future development, along with other existing, beneficial aspects of present life in Prince Rupert, are listed in Table 2-3. It appears there is an emphasis on improving a characteristic which already exists in Prince Rupert rather than introducing new aspects or facilities into the community.

Several issues and concerns were raised in a critical context. They represent part of the apprehension that citizens have regarding the present and future of Prince Rupert. These issues are listed in Table 2-4.

As can be seen by comparing the two lists, many items in the same general form appear in both tables. The most striking difference is the comparative absence of environmental items in Table 2-4.

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[1] Ratio refers to number of persons (male, female) who thought development would favour citizens vs. number of persons who though development would favour developers.

TABLE 2-3

SPECIFIC ISSUES AND CONCERNS APPEARING
IN THE TELEPHONE SURVEY

Growth and Development

Retail competition leading to lower cost of living.
Larger city tax base.
Improve the entertainment offering.
Will bring a new class of people into town.
Will raise physical quality of town.
More and better designed retail facilities.
More and wider range of employment opportunities.
Will increase the range of services available.
Will raise Prince Rupert in city status hierarchy.
A town of good employment and income opportunity.

General

Friendly people.
Mild winters.
A good town for family life.
Small town character is pleasing.
Clean environment.
Good recreation area.

Note: The emphasis is on improving features already present.

TABLE 2-4

SPECIFIC ISSUES AND CONCERNS APPEARING
IN THE TELEPHONE SURVEY

Growth and Development

Professional-medical services inadequate.
Housing shortage.
Traffic-parking already a problem.
Overbuilding of retail sector will lead to problems.
Labour shortage - and will get worse.
Coal dust and oil spills.
If growth is too rapid, more problems are created than solved.
Will hurt fishing industry.
Many local small businesses will not survive competition/growth.
Social service sector (schools, medic, etc.) inadequate.
Will bring small-town atmosphere to an end.

General

Bad weather
Physically is a dirty town.
Morally is a dirty town.
Cost of living is too high.
T.V. service inadequate.
Isolated location.
Bad highway and expensive air connections.
Lack of cultural activities above the bowling-movie level.
Lack of quality recreation-entertainment (especially restaurants).
No beach area with sea bathing.
Not enough planning of city development.

2.2.2 Synthesis of Survey Information

All the information gathered through the interview situations can best be summarized as responses made to ten basic questions. The questions are:

1. What do people like/dislike about Prince Rupert?
2. What will the future bring?
3. What is thought about the port development?
4. How will the port affect Prince Rupert?
5. What future problems can Prince Rupert expect?
6. How will development affect people?
7. Who will benefit most from development?

8. What special concerns are present in Prince Rupert?
9. What social concerns are apparent or seen as present in Prince Rupert?
10. Where do the native Indians fit in?

What do people like/dislike about Prince Rupert? People like the 'small-town' feel of Prince Rupert and the current absence of any social stratification. They also like the economic situation which allows most willing workers a chance to earn a reasonable living. Prince Rupert has been described as a "good family town" because of its relatively good environment and excellent outdoor recreation opportunities.

Residents listed several things they disliked about Prince Rupert. One of the main complaints was the town's isolation. Respondents feel the air fare costs are too high and many thought the chance to fly out more often (i.e. less expensively) would go far to reducing the pressure of other subjects of complaint.

The climate is almost universally criticized. A common suggestion to minimize the effects of the rain was to construct a closed mall-type shopping area.

The cost of living was also widely criticized and frequently compared with Terrace, which has a substantially lower cost of living than Prince Rupert. Specifically, the cost and availability of housing was a common complaint as housing is a major personal concern.

It is interesting to note that given the smallness of the town and the comparatively open nature of the downtown area, traffic congestion was frequently criticized. Apparently, during the height of the tourist season, the main streets are heavily used, and local traffic is impeded by ferry-bound tourists. In conjunction with complaints about traffic were complaints about parking. Generally, residents do not like the physical appearance of the downtown area and wish it were cleaner.

The overall impression received from the interviews was that people liked Prince Rupert because it was a small town, it was close to nature, away from the influence of the big city, there was good hunting and fishing, and you knew everyone in the town, and it was a good place to bring up children. On the other hand, people who disliked Prince Rupert did so because it was a small town with few amenities, it was isolated from cosmopolitan life, there was nothing to do except hunt and fish, everyone knew your business, and there were few opportunities for their children to get ahead. In other words, the things people liked about Prince Rupert were the same things people disliked about Prince Rupert.

If industrial development is going to alter the social structure and quality of life in Prince Rupert, who will it benefit or hurt most - those who want change or those who want the status quo?

What will the future bring? There is a general assumption that the future will bring development in some shape or form, with or without major Port development. Indeed, in most people's minds development is not the individual-port program but the construction they see proceeding within the city proper and in the "suburbs" of the town.

Most people recognize quite directly the risk between development and an increase in population, and they expect the city to grow in population.

All of the present problems are interpreted with respect to an increased population. The medical services and the recreational-entertainment sectors are already considered inadquate. If they are not improved in conjunction with a population increase it is felt the situation would become intolerable.

On the other hand, many of those who welcome development do so at least in part because they expect development to offer 'spin-off' benefits in the social sector.

What is thought about the Port development? Those who were aware of Port development generally favored it and expected it to benefit the city.

Only a very small portion of respondents opposed the entire concept of Port development. These respondents were either small-town advocates, or protectors of the fishing industry.

How will the Port affect Prince Rupert? It was felt that Port development would raise Prince Rupert in city status and make it the city of the north-west.

The minority opposition to the Port, as already noted, bases itself on the environmental impact of the Port (especially as it concerns the fishing industry); on the need to preserve a small-town way of life; and on the desire to avoid all the 'big-city' problems associated with growth.

What future problems can Prince Rupert expect? Respondents, generally, saw the future defined in terms of their attitudes toward growth and development in general. Those favoring growth saw a future in which many present problems were solved by growth, while those opposing growth saw a future in which present problems were made worse and new problems introduced.

How will development affect people? Respondents generally divided into a strong majority and weak minority on this question. However, even those with an optimistic estimation of development influences often expressed some reservations, or were otherwise cautious in their commentary.

Those who expected development to have beneficial effects generally concentrated on the livability of the city. They expected growth to increase the level of retail, social, and civic services in Prince Rupert. Optimists also tended to believe that at some level of growth all of these factors would somehow contribute to a reduction in the cost of living.

The dissenting minority believe development would accentuate present problems rather than solve them. Housing, in particular, was seen as one problem likely to be made worse by an influex of development workers.

One common observation, made by critics and acceptors alike, was that the retail facilities in the town were being overbuilt. A number of respondents were concerned that local businesses, not able to withstand increased competition, would have to close.

A second apprehension, also common to critics and acceptors, was that the labor situation in the service industries would not improve, no matter how much development took place. And a substantial number of respondents complained of poor quality services, many of which could be traced to the shortage of labor available to restauranters and retailers.

Who will benefit most from development? A substantial majority of respondents believed development would generally benefit most people. A significant minority felt developer and business interests would benefit most but only a few of these respondents expressed it in cynical or resentful terms.

The citizens at large, however, obviously felt that a heavy failure rate in the retail sector could only reduce the convenience amenities of the town, and perhaps open the door to a period of profiteering by the businessmen left viable in a situation of reduced competition.

What special concerns are present in Prince Rupert? Besides the questions of housing, isolation, retail, and social services that affect everyone and were mentioned by most people interviewed, there were several other matters raised by a few respondents that are noteworthy. These are detailed below in point form:

- Generally, the regular school system appears to be adequate and well staffed. However, several respondents questioned whether Prince Rupert was being sufficiently provided with vocational and post secondary educational opportunities.

- The sense of being second rate, as compared with other south-western metro centres, was a situation many respondents wished to alleviate. Citizens felt specific studies should be undertaken to discover what potential there is for providing within the area various functions presently available only in larger centres.

- Some respondents spoke of the need for better policing in the harbour area. Apparently, driftwood and excessive speed combine to damage moored boats, and little is done to keep these problems under control. Also, it is alleged that some docks and floats along the waterfront are sub-standard and fire protection is only available through small gauge stand pipes on the docks themselves.

- Several government officials and some businessmen were critical of what they saw as a tendency to centralize authority in Victoria or Ottawa. These respondents did not feel they were kept sufficiently informed regarding senior government intentions toward Prince Rupert development. Several officials felt Prince Rupert was discriminated against by senior levels of government, in favor of Terrace.

What social concerns are apparent in Prince Rupert? According to this study it appears that on the surface there are very few visible social issues in Prince Rupert. There is no obvious ghetto area, either residentially or commercially defined, and at the street level the native/white relationship is cordial. This is particularly so among the younger people, although less observable among the people 30 years and over.

There appears to be a highly developed beer parlour culture in Prince Rupert. A cluster of beer parlours in the southern centre of the main street area are largely patronized by Indians, while other beer parlours include a mixture of natives and whites.

Prince Rupert has a substantial, but not socially significant, hippie population in and around the city. Criticism of the hippies, however, is minimal.

Other social concerns focused on young people and drugs.

Where do native Indians fit in? Native Indians interviewed in the survey included government employees, employees of some native organizations and activities in the area of Native Rights or natives who had economically left the village reserve. From discussions with the natives it seems that they do not belong to Prince Rupert in the sense that many whites do. Instead they relate to a wider range of settlement patterns and do not consider the size of the community as the primary determinant of its significance for them.

Socially, there is a considerable degree of integration apparent in the town. Stresses are present, however, and several hotels have a policy of barring certain natives from the premises.

In the high school, there were only a few Indians enrolled. Many natives are lured from attending school by the high employment opportunity and prospect of good wages in the area.

CHAPTER 3

3.0 RECREATION

The future establishment of a bulk loading facility could have a strong impact on the already scarce recreation resources should its location coincide with an area of high recreation use or potential. On the other hand, the port's location could enhance the region's recreational opportunities in that new road construction might provide access to areas of high recreational value which are presently not accessible.

This portion of the study begins with an inventory of designated recreation areas in the region, and the facilities and activities, both current and proposed, which exist. The constraints which operate to reduce opportunities in the area and the undeveloped potentials are then examined to evaluate current and future regional prospects. Following this analysis the five selected location alternatives for the port facility are evaluated to determine their individual impacts on recreation.

3.1 Designated Recreation Areas[1]

3.1.1 Provincial Parks

Three small Provincial parks exist within the study area providing a total of 113 acres of Provincially operated recreation lands. A comparison of the three is provided in the following table:

TABLE 3-1

PROVINCIAL PARKS

Name	Location	Class	Size	Activities	Facilities
Oliver Lake (Est. 1960)	5 miles east of Prince Rupert on Highway 16	A	11 acres	Day use only	3 fireplaces 15 picnic tables
Prudhomme Lake (Est. 1964)	15 miles east of Prince Rupert on Highway 16	A	18 acres	Overnight camping only	17 campground sites with tables 4 pit toilets
Salt Lake (Est. 1925)	1.5 miles north of Prince Rupert on north side of the harbour. Boat access only	C	84 acres	Day use only	2 picnic tables 1 swimming float

[1] Refer to Map B1, "Recreational Facilities and Activities"

Class "A" parks are intended to preserve outstanding natural, scenic, and historic features of the province for public recreation. They have a high degree of legislative protection against exploitation and alienation.

Class "C" parks are Provincial parks intended primarily for the use of local residents and are generally managed by local parks boards.

Of the three parks, Salt Lake Park is rarely used. At one time the park was one of the main outdoor attractions for the City of Prince Rupert. A small dam held back a portion of the high tide water resulting in a tidal lagoon with more suitable water temperatures. During the years, however, the park has suffered from lack of maintenance and vandalism resulting in a present day unattractive condition. Park officials believe the potential of the area could be improved through weed control in the lagoon and provision of additional picnic tables.

On the other hand, Prudhomme Lake and Oliver Lake Parks receive a high degree of usage during the summer season, primarily from the tourist traffic travelling the Yellowhead Highway. Parks Branch statistics on usage for the period from mid-May to the Labour Day weekend are shown below:

TABLE 3-2

VISITOR STATISTICS

	1973		1972		1971	
Park	Day Visits	Camper Nights	Day Visits	Camper Nights	Day Visits	Camper Nights
Prud'homme Lake	-	5,652	-	4,460	-	3,944
Oliver Lake	3,612	-	6,264	-	6,468	-

In 1973 the origin of 43 percent of the campers registered at Prudhomme were Americans, while 36 percent of the remainder were B.C. residents and 21 percent were Canadians outside of B.C. Figures for the two previous years reveal a similar breakdown.

Oliver Lake Provincial Park

The small size of these two parks reveals a concern for the provision of road oriented facilities for the tourist rather than that of preserving large portions of land in a natural state. Consequently, there are no opportunities in these Parks for wilderness recreation activities or for interpretation of the Park environment.

3.1.2 Other Provincial Government Facilities

In addition to the parks discussed above, the Province has developed a small four table roadside picnic site at Galloway Rapids in the vicinity of the junction of Highway 16 and the Port Edward road. Also, a viewpoint overlooking Butze Rapids has been built, and a boat launching and parking lot facility developed at Rainbow Lake.

Butze Rapids Viewpoint

3.1.3 Provincial Recreation Reserves

A 685 acre reserve was established in 1962 on the west coast of Digby Island south of the Prince Rupert Airport. Approximately four miles of ocean frontage and a small beach are included within the reserve.

Another reserve surrounds Prudhomme Lake but also has not been developed.

3.1.4 Municipal Recreation Facilities

Prince Rupert possesses a very surprising range of recreation facilities for a city of its size. The total area of land designated as park land is 256 acres and the focal point of the developed facilities is the 68,000 square foot Prince Rupert Civic Centre which includes facilities for sports, theatre, and meetings. The Civic Centre is heavily used as indicated by the 24 hour operation of the ice facility during winter.

Other installations within the city are an indoor and outdoor swimming pool, nine playgrounds, a running track, a nine hole golf course (with the second nine holes under construction), three double tennis courts (three more are proposed), three playing fields, and a tourist trailer park located in Roosevelt Park. The summary report of the Prince Rupert Visitors' Bureau indicates that 3,600 vehicles stayed at Roosevelt Park in 1973.

Recreational land uses for the city are illustrated in the map "Present Land Use" in Chapter 4, Section 4.1.1.

Port Edward's municipal recreation facilities are naturally much less in number than Prince Rupert's. The village's only facilities are a ball park and tot lot adjacent to the elementary school.

Prince Rupert Civic Centre

3.2 Activities

3.2.1 Beach and Swimming Areas

The only beach area with water warm enough for ocean swimming is located at Salt Lake Park. The problems associated with this Park have previously been discussed. A definite revitalization of the area is required in addition to improving access. Other beaches which receive a certain amount of use are located on Kitson Island and Tugwell Island, but as private boat access is required, these two beaches do little to satisfy the demand for ocean beach recreation.

3.2.2 Scuba Diving

A diving club and certified instruction course has only been recently established in the region. The club's location is Prince Rupert.

As this sport is a recent innovation in Prince Rupert, no documentation of interesting dive locations exists and the club has begun a trial and error survey of the region. The Prince Rupert Harbour, Kloiya Bay, and Skeena River mouth have been studied and rejected because of poor visibility (siltation) and lack of marine life. Desirable sites are located in waters with interesting rock formations, and abundant plant and fish life. This usually eliminates areas with sandy sea bottoms.

To date, the list of suitable areas includes the north side of the Lucy Islands, east side of Tugwell Island, all of Devastation Island, and the portion of Digby Island adjacent to Venn Passage. There are also 26 documented shipwrecks in the area, eight of which are located in Prince Rupert Harbour.

3.2.3 Pleasure Boating and Fishing

Those individuals interested in this activity are able to moor their boats at three harbour locations: the Cow Bay floats, the Prince Rupert Yacht Club, and the Rushbrook public floats at the east end of the harbour. A public boat launch is located adjacent to the Rushbrook floats.

The yacht club possesses enough space for about 200 boats, the total varying by a small number depending on how many small boats are being kept there. All boats are owned by local residents. At present there exists a waiting list of 10-15 individuals with larger boats and the average wait is about two years. The club leases land from CN and has the potential to expand for about eight to ten more boats. But, this will not satisfy the current demand as many more individuals would own boats if mooring space were available.

Rushbrook Public Floats

Prince Rupert Yacht Club

Approximately 90 percent of boating activity occurs just outside the harbour in the vicinity of Digby, Ridley, and Smith Islands. Very few boats venture across Chatham Sound unless they are of substantial size and possess suitable navigation equipment. Recreational fishing occurs all along the east side of the Sound from Metlakatla to the mouth of the Skeena with no one area holding more significance than the rest. Fish migration appears to be uniform throughout this area. Salmon and Halibut are taken in these waters, crabs are caught in Venn Passage and also adjacent Tugwell Island. Abalone is found in the Tree Nob Island group, just west of the study area.

Some inland fishing occurs in the Prince Rupert area, although minor compared to off-shore. Bill Lake and Leverson Lake, east of the Work Channel area, are fished, but those individuals wishing to fish freshwater lakes usually travel farther inland to the Babine Lake area. Pleasure boating does occur on Rainbow and Prudhomme Lakes, with use being made of the boat launch on Rainbow Lake.

A canoeing club has recently been started in Prince Rupert and the area is now being inventoried for suitable stream areas.

3.2.4 Hunting

Hunting in the Prince Rupert area is considered marginal. B.C. Land Inventory ungulate capability maps indicate that Kaien Island and Digby Island have moderate limitations (Class 4) for deer habitat, but the remaining portions of the study area have moderately severe limitations (Class 5). It should be noted that all of Kaien Island is a game sanctuary. Most hunting enthusiasts travel to the Houston-Smithers area but some locals hunt Black Tail deer in Tuck Inlet. As a result, there is very little demand for typical non-resident hunting services such as guides, outfitters, and boat and plane charters.

3.2.5 Hiking

Little activity of this type occurs in the study area as the terrain offers limited potential. Steep slopes, very dense tree cover, and undergrowth, rule out easy access to the forested mountain slopes. Flat land areas also present an obstacle due to the widespread existence of muskeg and poor drainage. The best opportunities appear to be along the shoreline where accessible. No hiking trails have been developed in the area other than utilization of old logging roads. The road up Mt. Hays and the sub-alpine vegetation zone at its top do receive some use.

Meadow Area on Mt. Hays

3.2.6 Skiing

Downhill skiing presently takes place at Mount Ptarmigan, located 22 miles east of Prince Rupert near Rainbow Lake. Facilities include three rope tows and a chalet containing a warming area for skiers, canteen and ski storage. The main run is approximately 2,000 feet in length, whereas a "bunny hill" of 300 feet and a novice run of 700 feet are available for beginners.

However, a new and larger facility to be built on 2,400 foot Mt. Hays immediately south of Prince Rupert is being planned. Patterned after the facility on Grouse Mountain in North Vancouver, the fully completed development will include gondola, chalet, mountain top restaurant, 2,700 foot T-bar, and two rope tows of 800 feet and 1,500 feet respectively.

View from Mt. Hays

First stage development would see construction of the gondola, lifts and warming cabin ready for the 1975 - 1976 season.

As with other areas of the Province, cross-country skiing is becoming more popular. Some use is being made of the sub-alpine muskeg area atop Mt. Hays and this area offers good potential for ski trails.

Potential Cross-Country Skiing area atop Mt. Hays

3.2.7 Snowmobiling

Snowmobiles have had limited popularity in the Prince Rupert area, although some use has been made of local logging roads and access roads, particularly Wantage Road.

3.3 Cultural Recreational Facilities

This section will not examine the cultural features available within the City of Prince Rupert, but will discuss those features in the remainder of the study area. Included within this group are the various fish plants and canneries, the Canadian Cellulose complex, Metlakatla village, and Georgetown Mills.

Two of the businesses offer public tours which have proven popular. Approximately 5,000 visitors toured the Nelson Bros. Fisheries operation in 1972, and 6,200 in 1973. Canadian Cellulose reports 776 visitors in 1972 (July and August) and 400 visitors in 1973 (August only).

The Metlakatla band has opened a tourist centre within the main community featuring displays of village history and native craftsmanship. Approximately 400 people visited the Arts Centre and museum in 1973. The visitation would likely be higher if the Centre were not on the north shore of Prince Rupert Harbour necessitating use of a water taxi.

Georgetown Mills is a water powered mill and the longest operating mill in B.C. (1968 - 1970). It is located south of Port Simpson and outside the Indian reserve. Its merit as a historical site should be considered. Travel to this area is also by water.

3.4 Constraints

In order to judge fairly the adequacy of recreation opportunities in the Prince Rupert area, the various constraints which diminish both present and future opportunities should be examined. The Prince Rupert area is influenced strongly by a number of physical and social factors. On the physical side there are climatic factors, vegetation patterns, and terrain characteristics, whereas social considerations refer primarily to land use patterns and policies. The map "Constraints Against Recreational Use" (B-2) summarizes these various factors.

3.4.1 Physical Constraints

3.4.1.1 Climatic

The climatic considerations of the area are well known. Heavy precipitation, coastal fog during summer months, and extensive cloud cover all combine to discourage outdoor recreation. Prince Rupert receives nearly 100 inches of precipitation per year, with approximately 50 inches of snow. Fog conditions where visability becomes less than or equal to 1 km. are common throughout July and August and average 18 days per year. It is ironic that when sunny weather does occur, fog customarily accompanies it.

Marine water temperatures in the study area are below what is considered the comfort range, so ocean swimming is not a popular activity. Only lagoon complexes such as Salt Lake Park have warmer water.

3.4.1.2 Topography and Vegetation

Landform constraints are also a serious factor as the map illustrates. A large percentage of the land possesses slopes in excess of 30 percent, with much of the remainder between 10 and 30. Thus

opportunities for general recreation in favourable areas with sufficient easily developed back up land are minimal. Unfortunately the small percentage of flatter terrain possesses poor drainage and is usually dominated by coastal musket.

3.4.2 Social Constraints

3.4.2.1 Land Use Patterns

Various uses associated with the communities affect the recreational use of adjacent land and water. The Canadian Cellulose complex renders its immediate environment difficult for recreation. This results from the associated booming grounds, the visual obtrusiveness of the complex, and the air and water contaminants. The water quality of Porpoise Harbour, Wainwright Basin, as well as Morse Basin is severely influenced.

Sea plane activity at Seal Cove has a detrimental effect on recreational boating as the use of the waterway by both boats and planes is not compatible from a safety standpoint.

The west side of Digby Island is influenced by the proximity of the Prince Rupert Airport. The flight path is almost directly overhead for any individuals on that shoreline.

3.4.2.2 Watershed Area Management Policy

Prince Rupert water supply originates in the Woodworth Lake and Shawatlan Lake watersheds. This 19 square mile area is located immediately across Fern Passage east of the city. Because of the stringent requirements which must be met in order to gain access to the area, this large land unit is effectively removed from recreational activities. A medical pass from the Skeena Health Unit is required (approximately one month is necessary to complete the tests) as well as a daily pass from the city before travel in the area is allowed. No boats are allowed within the watershed.

Water for the Canadian Cellulose complex and the village of Port Edward originates in Rainbow, Taylor, and Prudhomme Lakes, which are not closed to recreation.

3.4.2.3 Indian Reserves

A large portion of the Tsimpsean Peninsula north of Prince Rupert as well as a sizeable area of Digby Island are Indian reserve lands. Their existence reduces the ready access of non-Indians to these lands. Aside from these major reserve lands belonging to the Metlakatla and Port Simpson bands, there are several other smaller reserves found along the shorelines of both tidal waters and lakes.

3.4.2.4 Log Booming Leases

Another constraint which affects primarily the boating recreationists are log booming areas. There are numerous booming grounds in the Prince Rupert area, either under lease to the National Harbours Board or the Province, depending on location. Because the requirements for boom locations are similar to those for boat anchorage, i.e. sheltered water, many coves and channels which would be used by boats have temporarily been lost. An additional factor is the occurrence of deadheads which increases the threat of damage to private boats. Tuck Inlet and Rainbow Lake are cases in point.

3.4.2.5 Access

One of the more major constraints against expanded recreational use of the area is the limited amount of road access outside of the individual communities. Essentially, there is only one road in the area, Highway 16, and for the most part all recreational developments are located a short distance off this transportation spur. Thus, most of the land area on the Tsimpsean Peninsula is inaccessible to the local population. Additional roadways would open up new areas and greatly improve the opportunities for recreational driving experiences which are now restricted to Highway 16 and the road to Port Edward.

Improved access to the offshore islands for those residents without the benefit of a boat would also help satisfy the demand.

3.5 Potential for Expansion of Recreational Opportunities

In spite of the rather negative discussion set forth in the previous section, the Prince Rupert area possesses many attractive scenic and recreation resources. Earlier sections have already outlined the current region outdoor recreation opportunities as well as those of a municipal nature. This section will now discuss some of the areas in which outdoor activities may be expanded. These land and water features are presented in the map: "Potential Recreation and Preservation Areas" (B-3).

3.5.1 B.C. Land Inventory Recreation Capability Maps

Recreation capability maps are available for the entire study area at 1 inch equals 50,000 feet and offer a good overview evaluation of the area's potential for recreation.

The basis of classification is the quantity of recreation which may be generated and sustained per unit area of land per year under perfect market conditions. Seven capability classes are used:

Class 1 : very high capability for outdoor recreation
Class 2 : high capability for outdoor recreation
Class 3 : moderately high capability for outdoor recreation

Class 4 : moderate capability for outdoor recreation
Class 5 : moderately low capability for outdoor recreation
Class 6 : low capability for outdoor recreation
Class 7 : very low capability for outdoor recreation.

The overall rating for the region is generally moderate (Class 4) to moderately low (Class 5) capability.

The accompanying map depicts those areas which have a Class 3 rating or better, and notes the major use possible.

Typically the inland portions of the Tsimpsean Peninsula, as well as the interiors of the larger islands are classified as having low potential (Class 5 and 6). Recreation activities in these areas would usually be of an extensive nature. Where lakes and streams occur in these upland areas, the potential improves with angling, organized camping, or beach activities as possibilities.

With the exception of the Chatham Sound shoreline from Salt Lake Park north to the Work Channel, the mainland shorelines areas are also assessed at low potential for recreation. What opportunities exist are similar to those surrounding inland lakes, i.e., angling, organized camping, viewing, boating. Morse Basin is rated somewhat higher because of better potential for camping and cottaging and the importance of Butze Rapids as a natural feature.

The remaining mainland shoreline mentioned above, has significantly higher potential (Class 2 and 3) than any other portion of the study area. These classifications are based on the existence of beaches, and the potential for family boating, and cottage and campground development. Two segments of this shoreline area have the best rating in the study area, a Class 2 or high capability rating. Good beaches and level backup land suitable for campground development account for this high rating.

The offshore islands with the exception of Digby and Tugwell, are rated Class 4 or Class 5 for shoreline and typically Class 5 or Class 6 for inland portions. The shoreline potentials are limited but have merit for offshore viewing, some boat access, camping, rock formations, and some beach use (e.g. Kitson Island).

The west and south shorelines of Digby Island have a Class 3 rating resulting from potentials for beach activities, cottaging, and organized camping. Another island with a Class 3 rating is Tugwell Island, again due to a beach formation.

3.5.2 Provincial Parks Branch Preliminary Inventory

Preliminary investigations of the Tsimpsean Peninsula's recreation potential by the Provincial Parks Branch have outlined some potential recreation areas. These include development of the reserve lands on Digby Island for possible beach use and boat moorage, upgrading

of Salt Lake Park, the development of fishing potential and boat moorage at Silver Creek on Tuck Inlet, and picnicking and boat anchorage at Pattullo Point, also on Tuck Inlet. As yet these study recommendations are not Parks Branch policy.

3.5.3 Regional District Study

The Regional District of Skeena-Queen Charlotte has recently examined the park and recreation potential of the mainland portion of the district. Actions to be taken to improve the recreation resource were identified as:

1. Expand Prudhomme Lake Provincial Park to include picnicking which local residents could utilize.

2. Upgrade Salt Lake Park to satisfy demand for ocean swimming.

3. Improve water transportation access to Kitson Island beach for general use.

4. Develop a picnic park and foot trail at the boat launch facility on Rainbow Lake.

5. Upgrade the road to Diana Lake for picnicking and camping.

6. Develop Frederick Point on Digby Island where a World War II military installation existed.

7. Maintain and upgrade Hays Creek, Morse Creek and Summit Street lands, all in Prince Rupert.

8. Extend the boundary of Oliver Lake Park towards Wainwright Basin to include an area of dwarf pines.

9. Extend the recreation reserve surrounding Rainbow Lake to Minerva Lake to protect recreation resources.

10. Maintain the character of Dodge Island.

Other areas were identified as meriting preservation rather than recreation as a primary use. These include:

1. Grassie Bay and the reversing falls at Butze Rapids.

2. Minature pines at Miller Bay.

3. Mount Hays above the 1,000 foot level to preserve a natural backdrop for the city and a buffer between the city and Canadian Cellulose.

4. Kitson Island to protect the beach and Flora Bank.

5. Mount Morse from the 500 foot elevation up to maintain its natural state.

Minature Pines

3.5.4 Other Sources

Other areas possessing recreation potential or possible developments were suggested by various sources during this study. There were:

1. Additional recreational driving experience could be provided by construction of a highway to Port Simpson.

2. Minerva Lake - McNeil River area offers good potential for picnic and campground development with improved road access.

3. Lachmach Lake's picnic potential could be developed by extending the road proposed in 2 above.

4. The Duncan Bay beach should be utilized as it is one of the best in the area, although it is on the Metlakatla Indian reserve.

5. Development of a picnic site at Butze Rapids.

6. Kloiya Bay could have picnic and campsite development.

Kloiya Bay

3.5.5 Summary

In summary then, new areas with recognized recreation potential for fairly intensive use occur on the west sides of the Tsimpsean Peninsula, north of Prince Rupert Harbour and on Digby Island. The higher capability ratings have resulted directly from beach formations and suitable backshore conditions. Unfortunately these areas cannot be added easily to the region's recreation resources for reasons outlined in Section 3.4: lack of road access, conflict with the airport and flight paths, and designation of land as Indian reserves.

Other locations of primary importance continue to follow the Highway 16 corridor inland, and if development occurred, the facilities would be used intensively by both local residents and tourists.

It is unfortunate, however, that ocean shoreline recreation in an area where the resident population lives immediately adjacent the water, cannot be developed as readily as its inland counterpart.

CHAPTER 4

4.0 RESIDENTIAL LAND USE

By examining both supply and demand factors relative to housing in the City of Prince Rupert, this section will quantitatively assess the anticipated future supply and price level of housing in the area. The temporary and permanent accommodation requirements of construction and operating workers in expanded port facilities are examined in light of the present and anticipated future supply of housing.

Within the study area of 735 square miles, more than 95 percent of the people live within the communities of Prince Rupert and Port Edward. It is in these relatively small areas that people live, work and conduct commerce. For most people, the most important land uses are within these communities rather than the rest of the study area.

As essential background data to the Cultural Studies, four maps have been included in this section. Map B-4 and B-5 are present land use and zoning maps of Prince Rupert and Map B-6 and B-7 are land use and zoning maps of Port Edward.

4.1 Historical Perspective

Initially chosen as the western terminus of the Grand Trunk Pacific Railway, the site occupied by the City of Prince Rupert was formally established in 1906 with the opening of a post office on Kaien Island. The city was initially conceived as a major port, destined to rival Vancouver and Seattle. Planners associated with the Grand Trunk Pacific Railway laid master plans for a city with a population exceeding 50,000 people. Accordingly, a central business district comprising some 1,500 acres was established; a commercial core deemed adequate by most authorities to serve a city of 150,000 people. Today, the entire City of Prince Rupert is contained within the 1,500 acre area originally planned as the downtown commercial core.

Most property within the originally planned commercial core of the city was subdivided into lots of 25 foot width by 100 foot depth. These were considered appropriate for commercial development in steeply sloping terrain. Lots of 50 to 60 foot widths by 150 foot depth were intended to be planned for the surrounding residential suburbs. Since 1909 when the first city lots were sold, virtually all properties occupied by both businesses and by residences have been within areas initially designated for 25 foot wide lots. The once intended residential suburbs of Prince Rupert have never been developed.

The combination of steeply sloping sites and extremely poor soil conditions which prevail through most of Prince Rupert have resulted in extremely high site servicing and foundation costs. It is not uncommon to encounter within a single property bedrock which requires blasting for removal and muskeg or organic peat deposits requiring compaction or removal by excavation. In addition, the extremely high rain fall recorded in the Prince Rupert area places unusually stringent demands upon sewer and drainage systems during most of the year.

In summary, few cities anywhere are faced with as difficult a combination of problems imposed by terrain, and to a lesser extent, climate as is Prince Rupert. The difficulty of dealing with these problems has given rise to fragmented development, with significant land areas within the area of the present city at one time cleared of original timber growth but not yet developed.

4.2 Residential Accommodation Today

4.2.1 Present Inventory

An examination of Table 4-1 will reveal that approximately 4,570 residential units (including 120 mobile homes) exist today in Prince Rupert. Because of excessive demand, particularly during the peak summer employment season, the inventory of motel and hotel transient accommodation is, by necessity, added to the inventory of residential accommodation, producing an additional 658 units for a combined total of approximately 5,230 residential units. It should be emphasized that more than one third of the motel/hotel rooms are judged to be unsuitable by reason of lack of plumbing, poor physical condition, or inadequate size.

Additions to the inventory of residential accommodation in the City of Prince Rupert since 1959 are detailed in Table 4-2. It is interesting to note that 1966 recorded the greatest addition in a single year to the housing inventory in the city. Some 353 units were added. In contrast, only 46 units were added in 1970, 57 units in 1971, 71 units in 1972, and 106 units in 1973. No apartment accommodation has been added since 1971.

Two joint Federal/Provincial multiple housing projects are currently in the proposal stage for Prince Rupert. The first of these calls for approximately 150 units ranging in size from one bedroom to four bedrooms with the majority of units being of two and three bedroom design. Although the project remains at a proposal stage as of early November 1974, it is hoped that construction on the first phase containing some 87 units may begin by approximately February 1, 1975.

TABLE 4-1

RESIDENTIAL ACCOMMODATION
CITY OF PRINCE RUPERT, 1974

Type of Dwelling	Owned	Rented	Total
Single Family Detached	2,305	211	2,516
Semi Detached and Duplexes	90	668	758
Row Apartments	-	160	160
Apartments	-	1,020	1,020
Mobile Homes	120	-	120
Sub Total	2,515	2,059	4,574
Motel and Hotel Rooms	-	658	658[1]
Total	2,515	2,717	5,232

[1]Only 412 of total 658 motel and hotel rooms are judged to be acceptable.

Source: Statistics Canada, 1971 Census - Updated from Municipal Building Permit Records

A joint Federal/Provincial senior citizens apartment building containing approximately 35 bachelor and one bedroom units is also proposed for Prince Rupert. Construction could begin on this project as early as March 1975.

4.2.2 Price Ranges and Costs

As described above, climatic and terrain factors have combined to adversely affect the cost of building in the City of Prince Rupert. As a result, housing costs in Prince Rupert today are disproportionately high for a city of its size.

An examination of Table 4-3 will reveal that approximately 50 percent of the dwelling units currently available are priced in excess of $36,000 - with 14.3 percent priced in excess of $50,000. The marketability of homes in these price ranges has been adversely affected by the same general financial conditions which have affected real estate markets throughout Canada and, indeed, throughout North America during 1974. Selling prices of homes which have traded during 1974 to date are shown in Table 4-4.

TABLE 4-2

NEW RESIDENTIAL CONSTRUCTION BY YEAR, PRINCE RUPERT

Year	Single Family	Double	Conversions*	Apartments	Total	Residential New Construction Permit Value	Total All Permits
1959	62	24	26		111	868,600	1,648,414
1960	30	8	11		49	441,000	1,088,570
1961	21	4	13		38	293,800	853,669
1962	22	6	17	40	85	915,259	2,955,289
1963	69	18	18	70	175	1,764,419	3,598,662
1964	42	12	16	25	94	785,025	1,774,084
1965	165	12	19	5	201	3,126,860	6,133,812
1966	82	10	18	246	353	4,243,772	6,415,777
1967	21	10	22	48	101	921,490	6,015,026
1968	25	8	28	4	65	690,000	1,854,679
1969	13	14	17	110	154	1,694,700	7,893,466
1970	4	9	12	21	46	406,500	3,571,015
1971	22	16	11	8	57	818,700	2,105,485
1972	49	16	6		71	1,453,500	2,943,796
1973	60	38	8		106	2,373,500	11,348,187
1974**	45	19				2,403,000	n.a.

Average number of dwelling units added per year : 114

* Permit value does not include value of conversion
**To September 30, 1974

Source: Building Department, City of Prince Rupert

TABLE 4-3

DWELLING UNITS* AVAILABLE
PRINCE RUPERT, OCTOBER 1974

Price Range	Number	Percent
$50,000+	10	14.3
41,000 - 49,900	22	31.4
36,000 - 40,900	3	4.3
31,000 - 35,900	13	18.6
26,000 - 30,900	10	14.3
21,000 - 25,900	8	11.4
Under 20,900	4	5.7
Total	70**	100.0

* Includes both detached and "single-attached" units.

** Although a total of 106 listings (representing 121 dwelling units) existed as of October 10, 1974, these figures do not represent the available "additional" accommodation in Prince Rupert. Appropriate adjustments must be made to remove dwelling units presently occupied by parties intending to remain resident in Prince Rupert as well as those which, for various reasons, are not available within a 30 day period. These adjustments are reflected in the above figures which represent an estimate of the number of dwelling units presently equivalent to vacant and available for possession within a 30 day period.

TABLE 4-4

DWELLING UNIT SALES
PRINCE RUPERT, OCTOBER 1, 1974 TO SEPTEMBER 30, 1974

Price Range	Number	Percent
$50,000+	37	8.8
41,000 - 49,900	51	12.2
36,000 - 40,900 31,000 - 35,900	95	22.7
26,000 - 30,900 21,000 - 25,900	121	29.0
Under 20,900	114	27.3
Total	418	100.0

A gap between asking prices and selling prices, such as that indicated by the relatively lower percentage of high priced homes which have sold, compared with those offered for sale in the current market is indicative of either a surplus of accommodation (buyers' market), or of a condition in which dwelling units currently available are considered by potential buyers to be inappropriate - in price, style, amenities or general quality.

With an overall shortage of residential accommodation as indicated by a rental vacancy rate of virtually zero and by the high level of occupancy of sub-standard, transient or tourist accommodation by permanent and semi-permanent residents, the gap between current asking prices and recent selling prices indicates that housing prices or mortgage interest rates or both are disproportionately high, relative to the abilities or desires of the residents of Prince Rupert.

Estimated average costs of new dwellings constructed in Prince Rupert and in Port Edward are shown in Table 4-5. The comparatively high land cost and high cost of servicing encountered in Prince Rupert is reflected in average costs of a typical 1,100 square foot dwelling reaching approximately $53,000. With significantly lower land prices and more readily serviceable property, total building costs in Port Edward for an identical structure are estimated to be approximately 12 percent lower.

TABLE 4-5

HYPOTHETICAL COST STRUCTURE
NEW SINGLE FAMILY DWELLING, APPROXIMATELY 1,100 SQ.FT.

	Prince Rupert Average	Port Edward Average
Lot	$11,000[1]	$8,000
Foundation Preparation and Building Cost	41,800	38,500
Total	52,800	46,500

[1] Approximately 50 lots remain "available" in established areas of the city ranging in size from 25 feet by 100 feet to 50 feet by 100 feet. These properties typically range from $3,500 to $5,000 in price. Few are offered for sale by their owners.

4.2.3 Problems

Housing problems which affect present and future residents of Prince Rupert can currently be classified into two types:

1. An extreme shortage of rental accommodation of all types. Local real estate officials estimate that approximately 250 rental accommodation units (165 family units containing two or three bedrooms and 85 one bedroom units) could be filled immediately.

2. A shortage of acceptable residential accommodation offered for sale at prices within reach of a typical family budget.

As noted in Table 4-6, monthly carrying costs (principal, interest and taxes) for a hypothetical new single family dwelling with a market value of $50,000 would be approximately $441. This figure is based upon the assumption that a purchaser would require a maximum NHA first mortgage (currently $32,500 in Prince Rupert) and would take advantage of the availability of the maximum British Columbia Home Owner Grant second mortgage ($5,000). The down payment required in such a purchase would therefore be $12,500.

Based upon a debt service to income ratio of 30 percent, monthly carrying costs of $441 would require an annual income of approximately $17,600. The average family income of Prince Rupert residents is estimated to be approximately $14,200 as noted in Table 4-7. Hence, the average cost of housing must be reduced by approximately 20 percent - or average family incomes must be increased by approximately 24 percent if costs are to be related to the purchasing power of potential buyers.

The misleading simplicity of averages must not be allowed to conceal the fact that one half of Prince Rupert's families currently earn less than the average income noted above. For these people, additional assistance - or adequate rental accommodation at affordable rates - will be required.

Viewed from another perspective, personnel officials of Canadian Cellulose Company Limited, the largest single employer in the Prince Rupert area, confirm that the difficulty of obtaining adequate housing for both single workers and families poses major problems affecting their recruitment program. With a current staff level of approximately 1,100, the company intends to hire an additional 250 to 300 persons (200 production workers and approximately 75 tradesmen) within the next six months. Production workers currently earn an average of $12,000 per annum while tradesmen employed by Canadian Cellulose Company Limited earn approximately $16,000 per annum. Clearly then the cost of new housing in Prince Rupert will continue to detrimentally affect the Canadian

TABLE 4-6

MONTHLY CARRYING COSTS, NEW SINGLE FAMILY DWELLING

Item	Monthly $ Requirement
Market Value of Property - $50,000	
1st Mortgage - NHA ($32,500 @ 12% - 25 years)	$335.37
2nd Mortgage - B.C. Provincial Government ($5,000 @ 8-3/4% - 25 years)	40.59
Estimated Net Monthly Taxes[1]	65.00
	$440.96
Income Required to Support Costs - Based upon 30 percent: Annually: $17,650 Debt Service/Income Ratio Monthly: $ 1,470	

[1]Based upon ratio of 25 percent - assessed value to market value; municipal mill rate of 79.75 mills; Provincial Home Owner grant = $230.

TABLE 4-7

AVERAGE FAMILY INCOME

		Consumer Price Index[1]
Average Family Income, June 1971	$11,100[2]	126.8
Estimated Average Family Income, Sept. 1974	14,200	161.8
Average Budget Available for Rent/Debt Service @ 30% Debt Service/Income Ratio	4,260/yr. 355/mo.	

[1]1966 = 100
[2]Statistics Canada, 1971 Census

Cellulose hiring program unless measures are taken to bring housing costs and availability in line with employee requirements.

Demands for housing accommodation in Prince Rupert are most severe during summer months when seasonal employment in the local canning industry is at its peak. A significant percentage of seasonal workers are natives in the area who appear to accept a semi-nomadic life, moving into the city during the summer fishing period, usually living in crowded rented quarters with relatives or friends. Additional rental accommodation would be of benefit to this group and would serve simultaneously to relieve some of the pressure upon Prince Rupert's hotel and motel visitor accommodation during the summer tourist season.

Caution is advised in any assessment of the quality or adequacy of housing for native migrant workers. Indeed, the provision of satisfactory housing for these people requires a thorough and specialized study as suggested by local officials:

> "Regarding social conditions and their relation to housing, most enlightening advice was given by Major Rideout and Captain MacInnes of the Salvation Army, and by Dr. Elliot of the United Church. Dr. Elliot commented mainly on the problem of accommodation for transients and on the needs for a communal building for natives. Some of his plans are now becoming reality with the construction of the new Friendship House. Major Rideout explained that the housing habits of natives reflect the process of natives' adjusting themselves gradually to conditions in a city of white population. He explained that this process is extremely important and that some of its perplexing aspects must be seen as necessary phases in the cultural change of a yet primitive people. Any rash judgement of living and housing habits of natives is unwarranted."[1]

4.2.4 Housing Demand Factors

Predictions of future demand for housing in Prince Rupert must be linked to predictions of population growth. Predictions of Prince Rupert's growth and population have historically been difficult to achieve with meaningful accuracy. Early predictions forecast fairly rapid growth of Prince Rupert to a population base of approximately 150,000 persons as a result of the city's strategic location relative to hinterland natural resources. Such predictions have been repeated on numerous occasions coincident with speculative activity and interest in one or more of these resources:

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[1] Source: Prince Rupert Economic Prospects and Future Development. Associated Engineering Services Ltd., January 1962.

To date, Prince Rupert has failed to witness the type of sustained economic boom which provides the basis for a continuing rapid population expansion. Research confirms that the expansion of the port facilities as initially proposed will result in a temporary increase of approximately 300 construction workers together with some families. This temporary increase will subsequently be entirely supplanted by a permanent increase of approximately 300 port employees together with a predictably larger number of families.

Both temporary and permanent port workers can be expected to increase the demand initially for rental accommodation and, subsequently for permanent, family oriented accommodation.

Growth in Prince Rupert's population is projected to reach 20,160 persons by 1981 as shown in Table 4-8. Projections contained in this table are based upon a relatively linear continuation of the historical rate of population growth since 1951, with appropriate adjustments being made to allow for increases as a result of potential port expansion. It should be pointed out that these figures may prove to be conservative if new, labour intensive industrial activity is brought into the area. The expansion of port facilities by themselves is not expected to result in population increases greater than those shown in Table 4-8.

An examination of Tables 4-1, 4-2, and 4-8 will serve to both quantify the extent of the present accommodation shortage in Prince Rupert and provide realistic estimates of the scale of building programs which must be undertaken to both alleviate the shortage and to provide adequately for future growth requirements.

As noted in Table 4-1, Prince Rupert contained a total of approximately 4,575 dwelling units in mid-1974. Population estimates reduced to number of household units indicate a requirement for approximately 5,000 dwelling units for mid-1974 as shown in Table 4-8. Hence, the present shortage of dwelling units is estimated to be approximately 425 units (consisting of approximately 250 rental units as noted in Section 4.23 with the balance of approximately 175 units being single family detached or semi-attached units available for fee simple purchase). The shortage of approximately 175 units available for purchase may be reduced by some of the existing stock of homes for sale as noted in Table 4-3. At best, however, a shortage of 100 - 130 fee simple dwelling units at costs within reach of the budgets of Prince Rupert residents presently exists.

TABLE 4-8

POPULATION/HOUSEHOLD CHARACTERISTICS, PRINCE RUPERT

Year	Population	Average Household Size	Percent of all Households		Number of dwelling units required:		
			Family	Non-Family	Family	Non-Family	Total
1951	8,546	3.7	-	-	-	-	-
1956	10,498	3.7					
1961	11,987	3.6	-	-	-	-	-
1966	14,677	3.6					
1971	15,747	3.5	80%	20%	3,600	900	4,500
1974	17,500*	3.5*	80%*	20%*	4,000	1,000	5,000
1976	18,260*	3.4*	80%*	20%*	4,300	1,070	5,370
1981	20,160*	3.4*	80%*	20%*	4,750	1,180	5,930

Required Average Annual Increase
Number of Dwelling Units,
1971 - 1981 -- 143

*Estimated

It is significant to note that since 1959, an average of 114 new dwelling units of all types have been added to the existing stock of housing in Prince Rupert. Moreover, this average annual addition has been reduced to a level of 70 units per year since 1970 as shown in Table 4-2. The required average increase in number of dwelling units for the period 1971 through 1980 is projected to be some 143 units per year.

Discussions with local builders confirm that the local construction industry commands adequate resources in terms of manpower, materials, and entrepreneurial ability to easily meet the average requirement of 143 dwelling units. In fact, sufficient capacity exists locally to handle more than 200 dwelling units annually, providing no large commercial or industrial projects divert manpower or resources.

4.3 Future Capacity For Housing Development

4.3.1 Physical Limitations

Physical and climatic conditions described in earlier sections of this report will continue to limit the extent to which areas within the present limits of the City of Prince Rupert as well as surrounding lands on Kaien Island may be developed. Consultation with planning authorities for the City of Prince Rupert has confirmed that barring new development or redevelopment to high density standards, the City of Prince Rupert has capacity to absorb approximately 960 additional housing units of various types ranging from detached single family dwellings to duplexes, zero lot line units, townhouses and conventional apartments of a low rise nature. Locations and estimated capacities for these new housing additions are shown in Map B-8. Locations for a possible 200 mobile home units are also shown in Map B-8.

In addition to the above noted areas for new development, it is estimated that approximately 75 vacant properties presently exist within developed areas of the city. Although few such properties are presently offered for sale by their owners, appropriate financial or tax incentives could probably result in a significant number of these "in-fill" lots being made available.

The total capacity for new residential development within the present urbanized area of Prince Rupert - barring higher density redevelopment of existing areas - is approximately 1,160 units.

4.3.2 Social Limitations

Residents of Prince Rupert are typical of inhabitants of northern communities inasmuch as they reflect a strong desire to own detached single family dwellings sited on individual lots. As has already

been demonstrated, this desire is becoming increasingly difficult to satisfy in Prince Rupert. While low density development is feasible in many smaller centers, the combination of bedrock, muskeg, lack of gravel and steep slopes in Prince Rupert defeat the proper operation of septic tanks. Further limitations are imposed by the relative scarcity of developable areas. Hence, low density development is more impractical in Prince Rupert than in other provincial centers of comparable size.

It is particularly important to the future stable growth of Prince Rupert, that housing forms acceptable to present and potential residents be developed. The largest single employer in the community, Canadian Cellulose Company Limited, has encountered considerable difficulty in attracting workers to Prince Rupert because of the present lack of acceptable housing of both rental and ownership forms. It is essential to the company - as indeed to the growth of the community in general - to encourage permanence and stability among present residents, and to provide conditions sufficient to attract new residents.

Recent surveys[1] have confirmed that mobile homes in particular are unacceptable forms of accommodation for intended permanent residents. While this type of housing may properly serve to accommodate transient workers where other forms of rental accommodation are in short supply, it will often deter potential permanent residents from locating in a community.

In summary, it is considered important that forms of multiple accommodation apart from those developed to satisfy the rental market must be designed to provide as much privacy - and, indeed, as many of the real and perceived advantages of the single family detached dwelling - as possible. If Prince Rupert must compete with other communities to attract desired new workers, and if it is unable to offer detached single family dwellings at price levels competitive with these other communities, it is of utmost importance that the housing which it does offer is as attractive and desirable as possible.

4.3.3 Ownership Patterns

Because virtually all vacant land in the City of Prince Rupert is publicly owned, either by the city or by the Provincial Government, Prince Rupert is able to control quality, standards, and sequence of development to a much greater extent than most communities. As desirable as these facts are, they have not, to date, resulted in a sufficient volume of housing being produced to satisfy community requirements. With appropriate administration, the community should be able to provide land sufficient to meet requirements and to control the land price component (as distinct from the service cost component) as market needs dictate.

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[1] Robin Sharpe Consultants, Employee Housing Needs, Canadian Cellulose Company Limited, 1974.

4.4 Conclusion

Although faced with difficult building and foundation conditions, the present urbanized area encompassing the City of Prince Rupert can absorb approximately 1,160 additional units of varying types without annexation and without extending municipal services into large, previously unserviced and difficult-to-develop areas. In addition, it is estimated that several hundred housing units can be developed in the Port Edward area after appropriate municipal services are installed.

Current high levels of interest rates have increased the cost of traditionally acceptable detached single family dwellings beyond the budgets of typical families in Prince Rupert. With a contracted market, builders have cut back on starts to an extent that will be increasingly felt in the coming months. Although a reasonable number of dwelling units continues to be offered for sale in Prince Rupert, asking prices are disproportionately high relative to average incomes. In fact, it is estimated that the cost of a typical acceptable dwelling must be reduced by approximately 20 percent - or incomes increased by approximately 24 percent - before the average Prince Rupert family is able to afford a detached single family dwelling.

Typical of many British Columbia communities, Prince Rupert is currently faced with an extreme shortage of acceptable rental housing. As a result, virtually all transient and tourist accommodation facilities are filled with monthly renters. The development of approximately 150 apartment units in the Pine Ridge area is expected to only partially relieve this shortage - and these units will not be available until at least year end 1975, possibly later.

The addition of approximately 200 construction jobs and, subsequently, 200 permanent jobs related to the development of expanded port facilities, suggests that a program should be instituted to develop acceptable rental accommodation and permanent, ownership types of accommodation if existing housing problems are not to be aggravated by the expansion of the port. Although much of the rental accommodation can be expected to be vacated by construction workers leaving the community, existing rental demand can be expected to fill all units as they then become vacant.

Some major employers in the Prince Rupert area have resorted to direct involvement in the provision of housing for permanent employees. Most notable among these, B.C. Packers has developed and sold at cost approximately 30 houses in the Port Edward area during the past two years. It presently holds sufficient land to provide approximately

20 additional units. In addition, the Canadian Cellulose Company Limited is currently studying the possibility of becoming directly involved in the provision of both rental and ownership forms of housing for its employees.

CHAPTER 5

5.0 COMMERCIAL AND INDUSTRIAL LAND USE

This report, by quantitatively assessing the extent to which Prince Rupert residents are currently served by commercial facilities, will determine the impact which expanded port facilities are likely to have- through increased resident population - upon the adequacy of these facilities.

An assessment will also be made of the extent to which the existing community can provide appropriate land areas for industrial expansion which may be generated indirectly as a result of port expansion.

5.1 Historical Perspective

From its beginning in 1904, as a land purchase of some 10,000 acres by the Grand Trunk Pacific Railway Company from the provincial government, the city of Prince Rupert has witnessed a slow - and not always predictable growth - to its present stature. By agreement, one quarter of the townsite which was purchased from the provincial government for one dollar per acre, and one quarter of the water front were to be reserved for provincial government requirements.

By 1910, with railway related construction activity proceeding at a high level, the city's population reached 4,300 persons. Upon completion of initial construction programs, however, the city witnessed an abrupt turn around in boom conditions. It appears that little thought has been given to realistically assessing the extent to which the resources of the Prince Rupert region would be immediately developable. As a result, the city found itself, in 1911, with a relatively unused dock and railway facility. The traditional means of livelihood in the area which centered around fishing and fish processing, once again became the most important economic activity. Population began to decline, reaching approximately 4,000 people by 1913.

During ensuing years, the major economic cornerstones which mark Prince Rupert as a city, continued to encourage stable, if unspectacular growth. In brief, these cornerstones may be summarized as:

1. Fishing and fish processing.
2. Provision of urban services to a large, sparsely populated hinterland.
3. Physical base for government services and agencies (provincial and federal).
4. Continued development of railway and port facilities as a point of trans shipment.
5. Lumbering and forestry related industries.

One of many significant setbacks was received by Prince Rupert when in 1922 the Grand Trunk Pacific Railway was merged with the Canadian Northern. The resulting system became a crown corporation known as Canadian National Railway with its Pacific Coast terminal located at Vancouver. The line to Prince Rupert thus reverted to a minor branch.

Consistent with experience in other communities, large numbers of lots were held by absentee owners anticipating boom conditions. During the depression years, much of this land reverted to the municipal government in default of payment of property taxes. With the initial reservation of substantial land areas in favour of the provincial government and the major holding of the railway company, the land ownership pattern which would affect development far into the future was not set. Virtually all land areas, except those occupied by dwelling units or business premises, were owned by the city, the railway or by the provincial government.

Local economic conditions were altered substantially with the advent of World War II. Strategically located between the contiguous 48 states and Alaska, Prince Rupert became a staging area. Port Edward developed quickly into a base for some 3,000 troops and large construction projects saw development of dry docks, war time housing a sea plane base at Seal Cove and substantial ammunition storage and related dock facilities on Watson Island. The city became linked by road to the rest of British Columbia for the first time with development of a highway leading eastward to Prince George. Population increased to approximately 20,000 persons and then declined to about 8,500 by 1951.

War related facilities provided bases for the establishment of Prince Rupert's most substantial industries today. The Columbia Cellulose Company, utilizing war surplus dock and building installations, commenced pulp production in 1951. This enterprise remains the largest single employer in the Prince Rupert area.

Municipal services installed during the war time occupation of Port Edward are today being utilized by the once again developing community of Port Edward. Expansion of industrial activity has occurred at other locations in the hinterland of Prince Rupert since the war. Kitimat and Terrace have seen the development of large hydro electric/ aluminium smelter complexes and logging and sawmill operations respectively.

Of all locations in the region, Prince Rupert remains most strategic with respect to ocean transport, an advantage of increasing importance as trade with pacific rim nations expands.

5.2 Patterns of Commercial and Industrial Land Use

5.2.1 Ownership and Control

From its beginning as a railroad terminus in 1904, with the consequent large scale land purchases by the Grand Trunk Pacific Railway Company, land ownership in Prince Rupert has been divided among an exceptionally small number of interests. Today, as shown in Figure 5-1, virtually all land apart from that occupied by existing residential dwellings or business premises, is owned by the City of Prince Rupert, the Government of British Columbia or the Canadian National Railway.

Because virtually all undeveloped land is held by government in the Prince Rupert area, exceptional control possibilities exist with respect to timing, sequence and placement of all types of development. While such restricted ownership has not in past proven to be of benefit in keeping costs of residential property comparatively low, the possibilities of controlling an orderly and rational development of commercial and industrial properties in future are highly significant.

5.2.2 Existing Commercial Structure

5.2.2.1 Adequacy of exising retail facilities

An inventory of existing retail space in Prince Rupert reveals that the city is presently served by approximately 440,000 square feet of occupied or leased retail premises, representing approximately 20.33 square feet per person based upon an estimated trading area population of approximately 21,500 persons. These premises comprise a typical array of merchants ranging from supermarkets through clothing and hardware stores to specialized merchants such as druggists and barber and beauty shops. A standard classification of retail premises is presented in Table 5-1.

It is interesting to note that the Prince Rupert trading area is currently served by approximately 14,96 square feet of retail space per capita (excluding automotive dealers), a figure which compares favourably with other selected Western Canadian centers as shown in Table 5-2. It is more interesting to note that three new shopping center additions in the Prince Rupert area (Rupert Square, Pride of the North Center and Port Edward Center) will, upon completion in the near future, add more than 200,000 square feet of additional retail space, giving the trading area approximately 24.4 square feet per capita (excluding automotive dealerships). As shown in Table 5-2, residents of the Prince Rupert trading area will be served by an exceptionally complete array of merchants upon completion of the new premises currently under construction.

TABLE 5-1

SUMMARY OF RETAIL SPACE - PRINCE RUPERT, 1974

Sales Classification	Existing Space (Sq. Ft.)	Per Capita[1] (Sq. Ft.)	New Shopping Center[2] Additions (Sq. Ft.)	Percent Change	Total (Sq. Ft.)	Per Capita[1] (Sq. Ft.)
Food	135,155	6.29	35,400	26.2	170,555	7.93
General Merchandise	38,800	1.80	84,766	218.5	123,566	5.75
Automotive	115,480	5.37	-	0	115,480	5.37
Apparel and Accessories	28,112	1.31	7,119	25.3	35,231	1.64
Hardware and Furnishings	68,916	3.21	8,860	12.9	77,776	3.62
Other Retail	50,696	2.36	31,633	62.4	82,329	3.83
Sub Total - Occupied or Leased Retail Space	437,159	20.33	167,778	38.4	604,937	28.14
Unallocated or Vacant Retail	3,000 E		32,561	[3]	35,561	1.65
Total Retail Space	440,159	20.47	200,339	45.5	640,498	29.79

E Estimate

1 Based upon trading area population of 21,500

2 Includes: Rupert Square, Pride of the North and Port Edward Centers

3 Vacant or unleased retail space represented 5.88% of all retail space, including new shopping center additions (including Port Edward Center) at mid November 1974.

TABLE 5-2

RETAIL SPACE PER CAPITA[1] -
SELECTED WESTERN CANADIAN CENTERS, 1973-74

	Camrose Alberta	Mission B. C.	Yorkton Sask.	Prince Rupert	Langley B. C.	Prince George
Population - City	9,194	13,413	13,450	17,500	33,563	60,000
Population - Trading Area	27,067	15,313	70,353	21,500	40,647	68,000
Sales Classification						
Food	4.04	3.88	1.34	7.93	1.80	2.43
General Merchandise	4.10	5.81	2.35	5.75	0.98	7.69
Apparel and Accessories	2.67	0.94	0.76	1.64	0.63	1.09
Hardware and Furniture	1.73	2.07	1.23	3.62	1.10	1.42
Other Retail	1.67	2.89	0.63	3.83	3.50	2.50
Vacant Space	N/A	N/A	N/A	1.65	N/A	N/A
Total	14.21	15.59	6.31	24.40[2]	8.01	15.13

[1] Based upon trading area populations
[2] Excludes "Automotive" space

N/A Information Not Available

It is apparent that local interests have anticipated a strong growth in population and in purchasing power in the Prince Rupert trading area. By approximately March 1975, with completion of the three shopping centers described above, Prince Rupert will contain adequate retail facilities to support a significantly larger population than presently exists, based upon comparisons with other Western Canadian centers.

5.2.2.2 Adequacy of existing office facilities.

Existing office space and new additions in the City of Prince Rupert total approximately 149,000 square feet, as shown in Table 5-3. This space inventory is comprised of approximately 80,000 square feet of existing office space together with approximately 69,000 square feet contained within the three shopping centers currently under construction within the trading area.

TABLE 5-3

SUMMARY OF OFFICE SPACE
PRINCE RUPERT, NOVEMBER 1975

	Existing Space (Sq.Ft.)	New Additions in Shopping Centers (Sq.Ft.)	Total (Sq.Ft.)
Leased or Occupied	65,000 E	38,459	103,459
Vacant or Uncommitted	15,000 E	30,373	45,373
Total	80,000 E	68,832	148,832

E - Estimated

Comparisons among cities and towns of office space per capita are meaningless since such centers vary extensively in the extent to which they perform administrative functions. The most meaningful assessment of adequacy of office space must therefore be made in terms of historical and current occupancy levels of the space available.

It is apparent from a survey of local authorities that Prince Rupert has, until recently, lacked adequate office space. Much of the space that has existed must be considered substandard. It is fragmented and fairly widely dispersed throughout the community in a number of small buildings. Local development interests appear to have correctly assessed the inadequacy of Prince Rupert's office space inventory and to have taken major steps to augment the inventory with new, high quality facilities.

At the present time, with new office space now available for lease, vacancy rates are extremely high in both existing and new facilities as shown in Table 5-4.

TABLE 5-4

VACANCY RATES IN OFFICE FACILITIES
PRINCE RUPERT, NOVEMBER 1974

	Existing	New Additions	Total
Vacant Space (Sq.Ft.)	15,000 E	30,373	45,373
Total Space Available (Sq.Ft.)	80,000 E	68,832	148,832
Vacancy Rate (Percent)	18.75	44.13	30.49

E - Estimated

5.2.3 Existing Industrial Structure

Both existing and potential industrial land areas in the vicinity of Prince Rupert are owned by government (municipal, provincial or federal) or by the C.N.R. Ownership patterns of areas which have to date been developed are shown in Table 5-5. As noted therein, approximately 342 acres of land area is presently developed for industrial purposes. This area includes substantial rail right-of-way and contains some unused areas. These ownership patterns are shown in Map B-9.

TABLE 5-5

INDUSTRIAL LAND OWNERSHIP, DEVELOPED AREAS
PRINCE RUPERT, 1974

Owner	Approximate Land Areas (Acres)	Approximate Water Areas (Acres)	Total
CNR (Not Leased)	166	186	352
CNR (Leased)	86	134	220
Provincial Govern.	31	120	151
Federal Government	35	90	125
Unclassified	24	65	89
Total	342	595	937

5.2.3.1 Industrial Expansion Potential

Considerable land area exists within the vicinity of Prince Rupert rendering continued industrial expansion feasible. This feasibility is supported by the ease of assembly of large areas as a result of the limited number of land owners involved.

Existing and potential industrial areas in the vicinity of Prince Rupert are shown in Figure 5-1. These are referenced in Table 5-6 wherein it is noted that approximately 345 acres are presently developed or nearly developed, while potential industrial lands contain an approximate additional 2,900 acres. It must be emphasized that much of the potential industrial land would require substantial grade changes. This is particularly true within the 1,850 acre Cobb Estate which contains precipitous slopes throughout its western reaches.

In addition to the 2,900 acres referred to above, land fill in Morse Basin could augment by approximately 100 acres the industrial potential of the Heilbroner Estate.

In summary, the Prince Rupert area contains substantial potential industrial land areas. Feasibility of industrial development is supported by the restricted number of land owners involved and hindered in some cases by means of access and/or difficult topographic conditions.

Although there appears to be a sufficient supply of industrial land to meet the demands of Prince Rupert's present, light industrial base, there are no parcels of sufficient size and suitability to accommodate a major, heavy industrial complex.

Figure 5-1

POTENTIAL INDUSTRIAL LAND AREAS

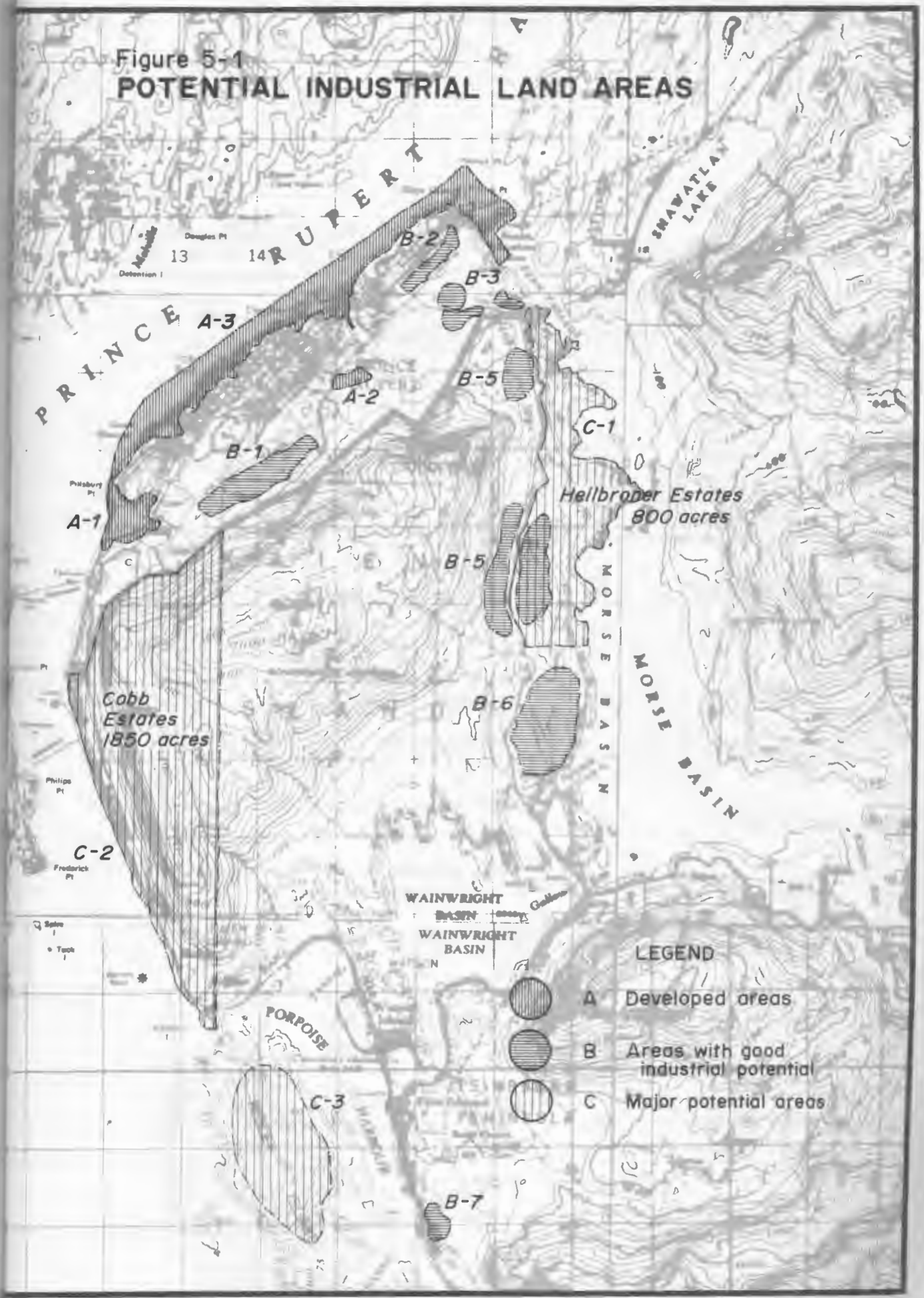

TABLE 5-6

POTENTIAL INDUSTRIAL LAND AREAS
PRINCE RUPERT AREA, 1974

	Map Reference Code	Location	Approximate Developable Area (Acres)	Comments
Developed Areas	A-1	Fairview	40	Most land used CN has approximately 45 acres nearby
	A-2	Yellowhead Center	30	Approximately 20 acres used/15 available
	A-3	Harbor frontage	275	Most developed
Areas with Good Industrial Potential	B-1	Wantage Road	60	Undeveloped
	B-2	East - 10th Avenue	16	Undeveloped
	B-3	Yellowhead Highway near Fern Passage	18	Undeveloped
	B-4	N.W. of Heilbroner Estate	22	Undeveloped
	B-5	West of Heilbroner Estate	36	Undeveloped
	B-6	N. of Hospital Cove, Morse Basin	80	Undeveloped
	B-7	South of Port Edward	10	Undeveloped
Major Potential Areas	C-1	Heilbroner Estate B.C. Development Corporation	800	Industrial Potential 300 acres plus approximately 100 acres of fill in Morse Basin
	C-2	Cobb Estate - B.C. Government Option	1,850	Steep slopes with high plateaus
	C-3	Ridley Island	500	

5.3 Conclusion

Surveys of the Prince Rupert area confirm that the city is presently served by an excess of both retail and office space. Local interests appear to have prepared for a significant expansion in population and purchasing power. With completion of new shopping centers currently under construction, the Prince Rupert trading area will be served by approximately 24.4 square feet of retail space per capita (excluding automotive dealerships). This compares very favourably with similar ratios for other Western Canadian centers.

Although Prince Rupert has lacked adequate quality office space until recently, there now appears to be a surplus of such space with the addition of approximately 70,000 square feet within the past 18 months. With current vacancy rates of approximately 30 percent, it is anticipated that the present office space inventory in Prince Rupert will be adequate - barring major expansionary moves requiring substantial office space areas - for three to five years.

Substantial areas within the vicinity of Prince Rupert exist which could support industrial expansion. Assembly problems would be minimized as a result of existing large scale government ownership. Some of these advantages would be offset by high costs of accessing, developing and servicing some of these properties as a direct result of difficulties imposed by terrain, soil condition and climate.

These difficulties are sufficient to rule out the development of a major heavy industrial complex on present land within Prince Rupert.

CHAPTER 6

6.0 EXISTING FISHING AND LABOUR-RELATED ACTIVITIES

The objective in the following analysis is to investigate the economic benefits currently being derived from commercial fishing and fish processing activity, recreational fishing and native food fishing. A brief section is devoted to speculating on the potential benefits which may be realized from ship provisioning activity.

6.1 Assessment of Existing Activity

6.1.1 Commercial Fishing and Related Industries

Prince Rupert is the center of the commercial fishing industry on British Columbia's northcoast. Hundreds of fishing vessels use the community as their home port and much of the fish caught in waters off the northcoast is processed at plants located in Prince Rupert or in nearby communities. It is not surprising, therefore, that the fishing industry accounts for a sizable share of the employment and income generated in the community. Despite the lack of precise statistics, it has been estimated that commercial fishing and related activities accounted for 23 percent of total employment and 22 percent of total income in the community during 1970[1]. Since the completion of that study, subsequent developments, particularly the expansion of the halibut fishery and development of a lucrative herring roe fishery, have increased the importance of the fishing industry to the local economy.

Although the halibut and herring roe fisheries have expanded in recent years, the salmon fishery continues to be the main source of income and employment for Prince Rupert residents engaged in fishing or in fish processing activity. The Skeena River ranks second only to the Fraser as a salmon producer and the potential for further expansion of salmon production, through the construction of enhancement facilities in upstream tributaries, is substantial. The productivity of the Skeena River as a salmon producer may be adversely affected, however, with the development of a bulk handling terminal in the river estuary. Should salmon populations decline, one of two outcomes may result - the number of fishermen engaged in the salmon fishery may remain unchanged, however, the quantities of fish caught will almost certainly decline; alternatively, fewer fishermen will be engaged in the salmon fishery and those displaced from the industry will

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[1] W.F. Sinclair, The Importance of the Commercial Fishing Industry to Selected Remote Coastal Communities of British Columbia, Department of the Environment, Fisheries Service, 1971, pp 88-90. Income estimates include fishermen's income and cannery workers' wages only.

necessarily have to find productive employment in other sectors of activity. In either of these situations, assuming no appreciable change in the prices paid fishermen for their catch, it could be expected that the income derived by fishermen will be less. In addition, reductions in the numbers of fish taken will lead to employment and income declines in ancillary industries, particularly fish processing.

The number of commercial fishing vessels reporting Prince Rupert (Statistical Area 4)[1] as home port declined marginally in recent years - from 795 vessels in 1971 to 748 by 1973[2]. Prince Rupert's share of the provincial commercial fishing fleet, however, remained almost constant (12 percent) over this period.

Commercial fishing vessels based in Area 4 actively fish the waters of the northcoast (see Table 6-1 for statistical summary of the fleet's composition). The range of some of these vessels is extensive as evidenced by those participating in the halibut fishery in the Gulf of Alaska and others involved in the herring fishery off Vancouver Island and the central coast area. However, of greatest significance to the Prince Rupert based fleet as a whole, are the salmon fisheries of the Nass and Skeena Rivers. This is reflected in the number of trollers and gillnetters registered in Area 4. Vessels of this type are used principally for salmon fishing.

TABLE 6-1

NUMBER OF FISHING VESSELS BY TYPE, AREA 4, 1971-73

Vessel Type	1971	1972	1973
Seiner	40	47	54
Gillnetter	541	491	513
Troller	177	180	151
Longline	27	18	20
Other	10	12	10
Total	795	748	748

Source: Fisheries Service, Special Economic Programs, and Intelligence Branch.

[1] See Figure 6-1.

[2] Fisheries Service, Special Economic Programs and Intelligence Branch.

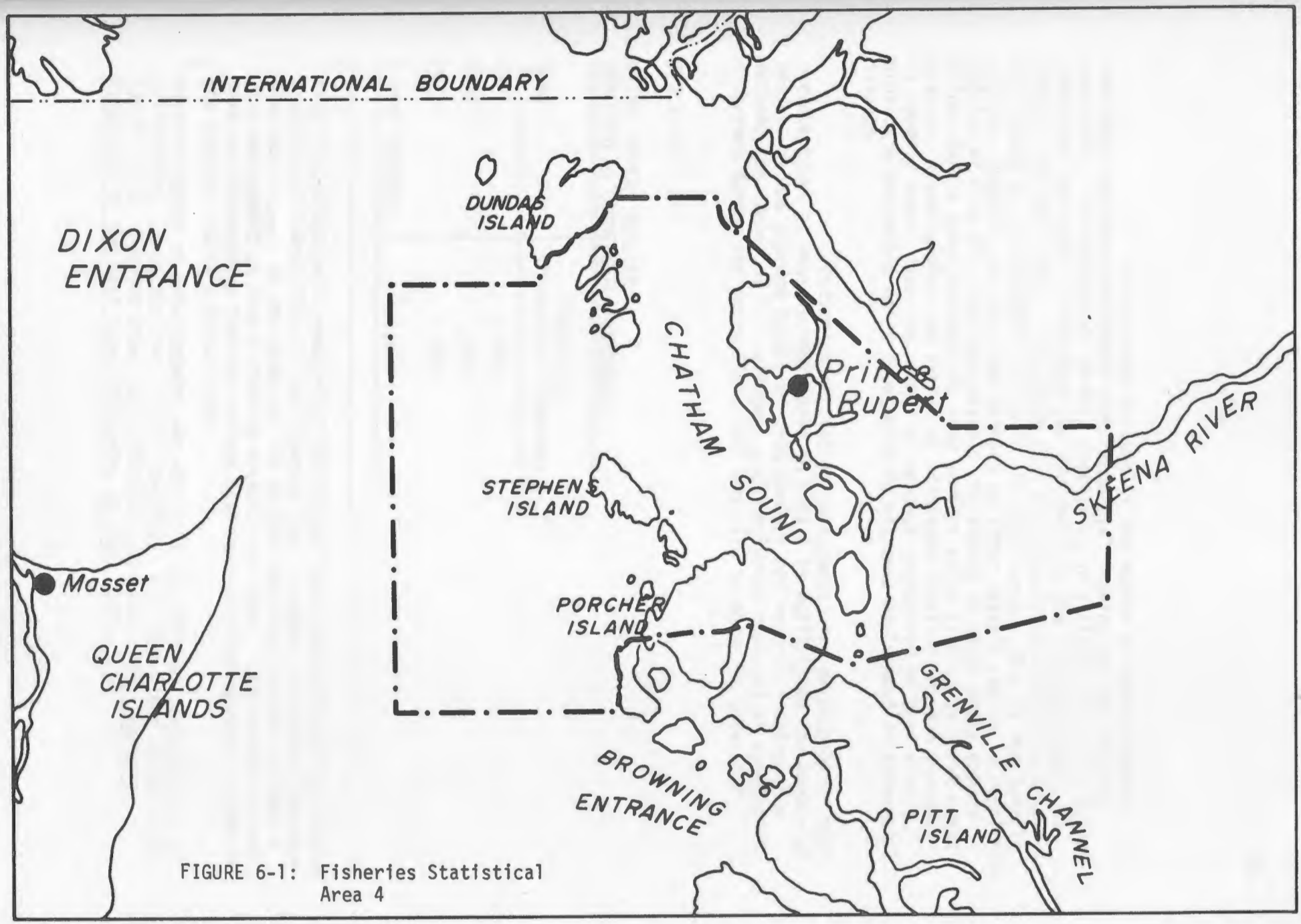

FIGURE 6-1: Fisheries Statistical Area 4

An accurate account of the number of Prince Rupert residents deriving employment from commercial fishing was not readily available. In the absence of this statistic, an estimate of Prince Rupert residents employed as fishermen was derived from the reported number of vessels moored in Area 4, assuming that all vessels registered in Area 4 are manned by crew members living in the local area. This is not totally correct, however, as some crew members on these vessels reside in localities outside of Area 4[1], and some vessels registered in other areas employ Prince Rupert area residents as crew members while fishing in north coast waters. Assuming that the number of fishermen involved in each instance is roughly equal, then the number of vessels registered in Area 4 will provide a reasonable basis from which to estimate employment in commercial fishing.

Estimates of fishing employment were developed for the various types of vessels registered in Area 4 by multiplying the number of vessels by the average number of crew members per vessel[2]. Using this method, the number of Prince Rupert area residents employed as commercial fishermen during the years 1971, 1972 and 1973 is shown in Table 6-2.

TABLE 6-2

PRINCE RUPERT RESIDENTS
EMPLOYED AS COMMERCIAL FISHERMEN

Year	Number of Commercial Fishermen
1971	1,460
1972	1,387
1973	1,421
3 Year Average	1,423

1 From discussions with members of the Prince Rupert executive of the Native Brotherhood Association, it was learned that a number of native fishermen (estimated to be in the order of 150 to 200) residing outside of Area 4 gain employment on Area 4 fishing vessels each year. Comparable figures were not forthcoming from the United Fishermen & Allied Workers' Union or the Pacific Trollers Association.

2 Assumed number of crew members per vessel is as follows: seiners - 6.3; gillnetters - 1.3; trollers - 1.5; longline - 6.9; and other vessel types types - 4.9. Adapted from Hedlin Menzies and Assoc., The Economic Potential of the West Coast Fisheries to 1980, 1971.

Although the length of the fishing season has been extended in recent years, with the increased utilization of additional fisheries besides salmon, employment in commercial fishing is usually of fairly short duration so that, on an average annual basis, the total number of residents employed would be considerably less than the estimated 1,423 calculated above. In a study of commercial fishermen[1], the Fisheries Service observed that 42 percent of north coast fishermen spent less than 16 weeks fishing annually. If we assume that the remaining 58 percent fish an average of 26 weeks each year, then on an annual basis, the equivalent of approximately 600 man-years of employment is generated by commercial fishing in the Prince Rupert area.

Fishing vessels registered in Statistical Area 4 reported a steady increase in the value of gross returns[2] over the past three year period.

TABLE 6-3

VALUE OF GROSS RETURNS

Year	Gross Returns of Fishing Vessels Registered in Area 4
1971	$ 8,696.000
1972	12,277.000
1973	20,030.000

Source: Fisheries Service, Special Economic Programs & Intelligence Branch

The sizable increase registered between 1972 and 1973 was due largely to a sharp rise in the prices paid fishermen for salmon and halibut. The value of gross returns reported by fishermen does not truly reflect the economic benefit derived from fishing, however. To arrive at a more precise indicator of this value, the costs incurred in operating and maintaining the fishing vessel (operating expenses, depreciation, etc.), as well as an allowance for return on capital, must be subtracted from gross returns. The residual value represents the net

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[1] W.F. Sinclair & J.P. Boland, A Socio-Economic Survey of Commercial Fishermen Living in the Northern Regions of British Columbia 1970, Department of the Environment, Fisheries & Marine Service, 1973.

[2] Gross return is the amount paid the fisherman for his catch.

income (i.e., the net economic benefit) accruing to both boat owners and crew members.

Information on net income of Area 4 vessels is not reported. However, an estimate of this value was derived from data contained in a study of Canada's west coast fisheries[1] .

It was possible to calculate the percentage of gross returns, represented by operating costs and depreciation, for trollers, gillnetters and seiners participating in B.C.'s salmon fishery [2]. The percentage values obtained were in turn applied to the reported gross returns of each category of vessel registered in Area 4 during 1973. Subtracting the estimated dollar value of operating costs and depreciation from reported gross returns gives an approximation of the return to labour and capital for each category of vessel (see following table).

During 1973, the return to capital and labour of fishing vessels based in Area 4 was approximately $10.6 million. Assuming a rate of return on capital of 10 percent [3], then the net return to boat owner-operators and crew members is estimated to be $8,605,000. This represents an average net income per fisherman of approximately $6047 per year.

To select a net income value for a single year and assume it to be representative of average annual fishing incomes, ignores the cyclical trend of income flows in the industry. For the purposes of this evaluation, however, a net income figure based on recent experience appears accurate for two reasons. Salmon and halibut prices increased sharply between the 1972 and 1973 fishing seasons and there seems little likelihood that these prices will revert back to former levels. These two species account for the majority of fish products marketed by north coast canneries. Furthermore, the benefits of upstream salmon enhancement programmes on the Skeena system are beginning to be realized, as evidenced

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1 Hedlin Menzies and Associates Ltd., The Economic Potential of the West Coast Fisheries to 1980, Hedlin Menzies and Associates Ltd., Vancouver, B.C., 1971. The data contained in this report was adapted from a study entitled, Net Returns from Fishing Vessels in British Columbia, 1966, 1967, and 1968, Department of Fisheries and Forestry.

2 Operating expenses include the following: boat and engine maintenance, fuel and lubrication, food and supplies, ice and bait, insurance, wharfage and slip charges, etc.

3 This estimate was used in the Hedlin Menzies study. In 1973 Area 4 vessels were valued at $19,918,000, therefore, the return to capital for boat owners is estimated to be $1,991,800.

TABLE 6-4

GROSS RETURNS, OPERATING COSTS AND RETURN TO CAPITAL AND LABOUR, AREA 4 FISHING VESSELS, 1973

Vessel Type	Reported Gross Returns of Vessels Registered in Area 4, 1973	Estimated Operating Costs Plus Depreciation, 1973	Estimated Return To Capital & Labour 1973
seiners	5,645,400	$2,935,600	$2,709,800
gillnetters	9,661,200	4,057,700	5,603,500
trollers	3,149,300	1,669,100	1,480,200
other*	1,574,100	771,300	802,800
Total	20,030,000	$9,433,700	$10,596,300

Source: Fisheries and Marine Service, Special Economic Programs and Intelligence Branch and Resources.

* Includes longline, trawlers and all other vessel categories.

by the expanded production of Skeena River sockeye salmon during the past fishing season (1974). It is our belief that averaging net fishing incomes over a period of years will result in an understatement of the magnitude of fishing income based on recent experience. For this reason, the net income earned during 1973 ($8.6 million) appears to be an appropriate indicator of the economic benefit Prince Rupert area fishermen derive from fishing.

6.1.2 Fish Processing

The fish processing industry on British Columbia's north coast is centered in the Prince Rupert area. At the present time, the six canneries [1] and two cold storage facilities located within the study region handle the majority of fish landed in waters north of Vancouver Island.

Prince Rupert's role as a fish processing center is revealed in the following statistics, comparing the fish landings processed at plants north of Cape Caution with total provincial landings [2]. The figures also include landings at two small plants located in the central coast area; however, the quantities involved are minor when compared with the north coast total.

TABLE 6-5

FISH LANDINGS

Year	Weight of Fish Landed[3] at: North Coast Plants ,000 lbs.	Total Plants B.C. ,000 lbs.	Landings-North Coast as a Percentage of Total B.C.
1970	67,899	201,437	33.7
1971	59,038	179,383	32.9
1972	88,315	226,430	39.0
1973	72,142	254,674	28.3

Source: Fisheries Service, Special Economic Programs and Intelligence Branch.

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1 An additional processing plant is currently under construction at Port Simpson.

2 Cape Caution is located on the mainland slightly north of the northernmost tip of Vancouver Island.

3 Not including herring.

The fish processing industry is responsible for employing many hundreds of Prince Rupert residents each year. The bulk of the work-force employed at the canneries is seasonal, with the peaks in employment occurring during the summer months at the height of the salmon season and in February, and March, coincidental with the herring roe fishery. The timing of the salmon season allows the canneries to tap the large supply of available student labour. Many women are also employed as production line workers in cannery operations, as indicated by the high proportion of seasonal women workers found in the Chapter 1 statistical analysis[1].

The economic benefit Prince Rupert residents derive from the fish processing industry is represented by the wages and salaries earned while employed at the canneries as shown in Table 6-6 for the year 1970-73. Profits earned from cannery operations and accruing to local residents also represent an economic benefit; however, in the case of Prince Rupert residents, this amount is judged to be insignificant.

TABLE 6-6

EMPLOYMENT AND PAYROLL,
PRINCE RUPERT CANNERIES, 1970-73

Year	Average Annual Employment	Gross Wages and Salaries
1970	990	$ 6,400,000
1971	997	6,980,000
1972	1,472	10,600,000
1973	1,087	10,860,000
4 Year Average	1,137	8,710,000

Source: Resourcecon

The choice of the 1973 estimate over alternatives was influenced by two factors - firstly, employment in the industry during 1973 was almost equal to the four year average calculated, indicating that 1973 was a near "normal" year for the industry; and secondly, wage rates have increased sharply and the calculation of economic benefits should reflect the current wage rates.

[1]Cannery employees are classified into manufacturing.

Not all workers employed at processing plants in Prince Rupert reside in the local area. However, it is impossible to estimate accurately the magnitude of this non-resident income component.

Although the economic benefit associated with fish processing is estimated to be in the $10-$11 million range at present, this value may increase substantially in the near term due to the expansion of productive capacity of the industry in the Prince Rupert area and continued escalation in hourly wage rates of workers. The productive capacity of the industry was increased during the past year with the completion of the newly constructed Oceanside Cannery[1]. At peak periods it is expected that this plant may employ upwards of 900 people. An additional processing plant referred to earlier is presently nearing completion at Port Simpson. When in operation, this plant will employ approximately 200 workers.

6.1.3 Fishing-Dependent Activities

The fishing industry is responsible for generating additional employment and income in those sectors functioning in a supply capacity. Many firms supply the fishing industry with a multitude of goods and services, including: fishing vessels and equipment, petroleum products, food supplies, fishing gear plus a wide range of maintenance and business services.

As time and budget constraints did not allow primary research to be undertaken on this topic, we were obliged to rely upon material contained in Sinclair's[2] study of the commercial fishing industry. One section of the study was devoted to analyzing the economic base of the Prince Rupert area and the function of the fishing industry as a basic activity in the local economy[3]. The analysis concluded that for each basic job in the community there was an equivalent of 1.8 non basic jobs; in addition, one dollar of basic income was found to generate approximately one dollar of non basic income.

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[1] The former facility was destroyed by fire during 1972.

[2] W.F. Sinclair, op. cit.

[3] Economic base theory operates on the premise that the reason for the existence and growth of a region or community lies in the goods and services it produces locally, but sells to non-residents. These basic activities not only provide the means of payment for raw materials, food and manufactured products which cannot be produced locally but also support the non basic or service activities which serve the local market.

Estimates of the number of indirect jobs and indirect income are as follows:

(i) Employment

man years in fishing and processing[1]	x	non basic emp. / basic emp.	=	indirect employment (equivalent man years) created by fishing
		1.8		3127

(ii) Income

income derived from fishing	x	non basic income / basic income	=	indirect income created by fishing
19,465,000		1.0		19,465,000

6.2 Recreational Fishing

The Skeena River system and tidal waters surrounding Prince Rupert afford valuable sport fishing opportunities to local residents and visitors to the area. The scope of these opportunities may be adversely affected, however, with the construction of a bulk handling port facility near the mouth of the river. Anadromous fish species, particularly salmon and steelhead, utilize the Skeena when leaving and returning to upstream spawning areas. Of particular importance from the point of view of sport fishing is the potential impact the port development might have upon the runs of chinook and coho salmon and steelhead trout. These species are the ones most sought after by resident and non-resident sport fishermen alike.[2] Total or partial elimination of this recreational resource would impose social costs upon those who currently engage in sport fishing. Furthermore, the opportunity of individuals not presently participating in sport fishing, but who might wish to take part at some time in the future may also be jeopardized should the availability of sport fish decline.

[1] Employment consists of 600 man years in fishing and 1,137 cannery workers.

[2] The Skeena also supports runs of pink, chum and sockeye salmon, however, these species are not normally caught by anglers. In addition, sea-run cutthroat and Dolly Varden trout frequent the Skeena and its tributaries, however, their occurrence is largely limited to that part of the system downstream from Hazelton. As the amount of angler effort expended on these species is believed to be of minor importance, they have been excluded from the following analysis.

In the following section the anadromous sport fishery of the Skeena River system is assessed, with the object being to identify the extent of angler participation in river and ocean sport fishing and to estimate the economic value of this recreational resource.

6.2.1 Resident and Non-Resident Participation in Recreational Fishing

For analytical purposes, those engaging in recreational fishing are identified as being either resident or non-resident participants. Resident anglers include those residing in the Skeena River watershed and in oceanside communities in the Prince Rupert vicinity. Anglers living outside this geographical area who participate in the region's sport fishery are classed as non-residents. Estimates of each group's participation are expressed separately for saltwater and non tidal fishing.

6.2.1.1 Freshwater Sport Fishing

The analysis in this section is largely based on a study[1] of sport fishing activity in northern British Columbia conducted by Environment Canada, Fisheries and Marine Service. The report examined the patterns of angler participation, the socio-economic characteristics of anglers and the economic values associated with the sport fisheries of the Lower Skeena Valley and the Morice-Bulkley River region (see Figure 2). Field surveys conducted during 1972 and 1973 provided the basic statistical data on sport fishing activity in these two regions.

Morice-Bulkley Region

The Morice-Bulkley region includes that part of the Skeena watershed extending in a general southeast direction from the confluence of the Bulkley and Skeena Rivers. Both the Morice and Bulkley Rivers are recognized as excellent salmon and steelhead fishing streams.

The Fisheries Service derived estimates of resident and non-resident participation in the salmon fishery in the lakes and rivers of this region. Comparable estimates on steelhead trout, compiled each year by the provincial Fish and Wilklife Branch, provide a measure of angler effort expended in this particular recreational fishery. Average values of angler participation in both types of sport fishing for the years 1972 and 1973 are as follows:

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[1] D.J. Reid, The Importance of Sport Fishing to the Northern Mainland Coast and North Central Areas of British Columbia: An Economic Survey, Northern Operations Branch, Pacific Region, Fisheries and Marine Service, Department of the Environment, 1974.

TABLE 6-7

AVERAGE ANGLER PARTICIPATION:
MORICE BULKLEY REGION

	Angling Days[1]		
	Salmon (av. 72-73)	Steelhead (av. 71-72, 72-73)	Total
Resident Anglers	5,888	7,496	13,384
Non-Resident Anglers	2,385	3,555	5,940
Total Angling Days	8,273	11,051	19,324

[1] Any part of a single day devoted by an individual to sport fishing is referred to as an angler day.

Source: Reid, op. cit., pp 46 and 48.

In recent years stocks of chinook and coho salmon and steelhead trout in the Morice Bulkley region supported nearly 20,000 days of angling effort, with residents accounting for just over two-thirds of the total. When compared with the total number of days spent fishing for all species, estimated to be approximately 24,400, the importance of anadromous species to the regional sport fishery becomes apparent.

Lower Skeena Region

Geographically, the Lower Skeena region comprises the entire Skeena River system downstream from the Hazelton area also including the Kispiox River. The Kitimat River sport fishery, included as part of the Lower Skeena region in the Reid study, is excluded from this analysis.

The streams and lakes of the Lower Skeena system supported an average of 123,800 days of fishing effort during 1972 and 1973. Salmon angling days were the largest, numbering 61,600, followed by trout angling days at 46,400 and steelhead fishing ranked third accounting for 15,800 angler days of effort. The breakdown of the salmon and steelhead fishery by residence of participants is as follows:

TABLE 6-8

AVERAGE ANGLER PARTICIPATION
LOWER SKEENA REGION

	Angling Days		
	Salmon (av. 72-73)	Steelhead (av. 71-72, 72-73)	Total
Resident Anglers	54,861	9,384	64,245
Non-Resident Anglers	6,711	6,418	13,129
Total Angling Days	61,572	15,802	77,374

Source: Adapted from Reid, op. cit., pp 71 and 76.

Residents of the Lower Skeena region dominated the salmon sport fishery, accounting for almost 90 percent of the fishing effort. Although resident steelhead angling days outnumber non-resident days, steelhead fishing obviously attracts relatively more anglers from outside the region than the salmon fishery. This is not surprising, however, as the Lower Skeena region possesses some of the better quality steelhead rivers in the province and the autumn steelhead runs attract anglers from far afield.

Sport fishing is clearly an important recreational pursuit of the residents of this region. It has been estimated that approximately 17 percent of Prince Rupert residents and 19 percent of Terrace residents are active fishermen. Combined, this represents 5,250 anglers who fish on the order of 95,000 days per year in the Lower Skeena region. Granted, the area's trout fishery and the sport fishery of the Kitimat River account for a portion of this effort, nevertheless, this does not detract appreciably from the importance of salmon and steelhead fishing to the residents of Terrace and Prince Rupert.

Upper Skeena Region

The sport fishing survey conducted by the Fisheries Service provided no indication of the extent of angling effort occurring in the upper reaches of the Skeena System[1]. Although the waterways of

[1] That part of the Skeena River system upstream from the confluence of the Kispiox and Skeena Rivers.

this area may offer superb sport fishing opportunities, it is doubtful that the sport fishery is heavily exploited. Vast portions of the area are virtually unserviced by roads or highway systems, thus making accessibility difficult; and the excellent sport fishing opportunities available within close proximity of regional communities preclude the need to seek out more distant areas in order to ensure successful angling.

In our estimation, salmon and steelhead fishing in this region support nearly 2,900 days of angling effort annually, based on 1,650 angler days of steelhead fishing as reported for rivers in this area in the Steelhead Harvest Analysis[1], and estimated salmon angling effort of 1,230 days per year. The division between resident and non-resident participation in this fishery is as follows:

TABLE 6-9

AVERAGE ANGLER PARTICIPATION
UPPER SKEENA REGION

	Angling Days		
	Salmon	Steelhead	Total
Resident Anglers	875	1,120	1,995
Non-Resident Anglers	355	530	885
Total Angling Days	1,230	1,650	2,880

Source: Steelhead Harvest Analysis and Resourcecon.

By aggregating the estimates of angling effort for each of the three regions discussed above, we find that the non tidal anadromous fishery of the Skeena River system supports nearly 100,000 days of fishing effort annually. The resident and non-resident participation in this recreational resource is summarized as follows:

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[1] Steelhead Harvest Analysis, Department of Recreation and Conservation, Fish and Wildlife Branch, 1972-73 and 1973-74.

TABLE 6-10

SALMON AND STEELHEAD ANGLING DAYS

	Morice-Bulkley	Lower Skeena	Upper Skeena	Total
Resident Anglers	13,384	64,245	1,995	79,624
Non-Resident Anglers	5,940	13,129	885	19,954
Total Angling Days	19,324	77,374	2,880	99,578

6.2.1.2 Saltwater Sport Fishing

The discussion below outlines the extent of tidal sport fishing in the Prince Rupert region. As with the section on fresh water fishing, the objective is to identify the amount of angling effort attributable to residents of the region and to non-resident anglers.

In spatial terms, tidal sport fishing in the Prince Rupert region is assumed to occur in those waters bounded by Dundas Island on the north, Porcher Island on the south and Hecate Strait on the west. This area corresponds to statistical area 4, a resource management and statistical reporting unit designated by the Fisheries Service.

The extent of salmon sport fishing in tidal waters along the B.C. coast is well documented in an annual publication of the Fisheries Service[1]. During the period from 1970 to 1973, salmon sport fishing effort reported for statistical area 4 averaged 1,555 boat days annually[2]. According to the Fisheries Service, one boat day is equivalent

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[1] Salmon Sport Fishing Catch Statistics for British Columbia Tidal Waters, Fisheries and Marine Service, Department of the Environment.

[2] Any part of a single day during which a boat is used for angling purposes is referred to as a boat day. Included are privately owned and rented boats. Also accounted for are angling days of effort from wharves, docks, shorelines, etc.

to 2.5 days of angling effort, based on an average of 2.5 fishermen per boat[1]. Therefore, it is estimated that on average nearly 3,900 salmon angler days occur in area 4 annually.

In a study of sport fishermen, Sinclair observed that non-residents account for nearly 10 percent of tidal fishing effort in the Queen Charlotte and Prince Rupert area[2]. Applying this relationship to our estimate of average salmon angling days for statistical area 4, we find that non-residents account for 390 angling days and residents 3,510 angling days annually.

Although salmon is acknowledged to be the sport fish most sought after by saltwater anglers, some fishermen intentionally fish for other species. It has been estimated that 86.5 percent of resident sport fishermen living in proximity of tidal waters deliberately fish for salmon[3]. For non-resident anglers interviewed in tidal areas, the comparable figure is 83.8 percent[4]. These relationships, when applied to the estimates of salmon angling days, provide estimates of total resident and non-resident tidal angling days equal to 4,060 and 465 fishing days respectively.

The extent of resident and non-resident participation in the tidal sport fishery of statistical area 4 is summarized below:

TABLE 6-11

AVERAGE ANGLER PARTICIPATION: TIDAL

	Angling Days		
	Salmon	Other	Total
Resident Anglers	3,510	550	4,060
Non-Resident Anglers	390	75	465
Total Angling Days	3,900	625	4,525

1 W.F. Sinclair, The British Columbian Sport Fisherman, Fisheries Service, Department of the Environment, 1972.

2 Ibid, pp 13-15.

3 Ibid, p. 19.

4 Ibid, pp 20-21.

6.2.2 Economic Value of Sport Fishing

Considerable research effort has been devoted to developing methodologies suitable for the evaluation of non-priced recreational opportunities which are provided at no direct cost to the user; therefore, the value the user places on the activity cannot be readily determined. If we could ascribe a market price to a unit of recreation, such as an angler day, then the evaluation problem would be solved - the market price of the unit of recreation would reflect the user's perception of the value he derives from the experience.

Although sport fishing is termed a non-priced recreational resource, this does not imply that it is valueless. On the contrary, anglers would argue that they derive considerable value from fishing even though the opportunities are provided to them at no cost.

The methodology used in this analysis to assess the economic value of sport fishing was adapted in part from a study appraising the value of fresh water sport fishing in British Columbia[1]. The study identified two types of values or benefits associated with recreational fishing. Primary benefits reflect the value accruing to anglers from the recreational experience, whereas secondary benefits accrue to residents of a region owing to sport fishing-related expenditures made by non-resident participants in the region's sport fishery.

6.2.2.1 Primary Sport Fishing Benefits

The direct benefits associated with sport fishing are assumed to accrue only to resident anglers - in this case, those living in Prince Rupert and surrounding communities and in other parts of the Skeena River basin. Skeena area residents benefit directly from the regional sport fishery to the extent that they participate in it. Should this recreational resource cease to be productive, of course, primary values would be nil. While non-resident sport fishermen derive value from fishing, those values are not classified as primary benefits because, in the absence of the Skeena fishery, these anglers would likely redirect their fishing effort to alternative locations.

In attempting to develop an approximation of the value of the Skeena sport fishery, budget and time constraints dictate the use of the "alternative values" technique. It involves assigning an average value to a unit of recreation, based on government guidelines, private market prices or research conducted in other jurisdictions. Multiplying

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[1] Pearce Bowden Economic Consultants, The Value of Fresh Water Sport Fishing in British Columbia, prepared for the Fish and Wildlife Branch, British Columbia Department of Recreation and Conservation, 1971.

the average value per unit by the observed number of recreation days gives the gross annual value of the recreational resource. A review of studies on sport fishing evaluations conducted in other areas enabled us to develop a range of realistic values suitable for use in this analysis.

To provide a range of values indicative of the benefit derived by resident anglers from salmon and steelhead fishing, three assumptions regarding the value of an angler day have been used. The low estimate of $13.50 was taken from an analysis of the Okanagan sport fishery[1]; a high estimate of $30.00 per angler day was established; and a 'most likely' value fell in between these two extremes at $20.00 per angler day[2]. Based on 83,134 angler days of resident salmon and steelhead fishing effort, the average annual value of the sport fishery under the three value assumptions is as follows:

TABLE 6-12

PRIMARY SPORT FISHING BENEFITS

Value of 83,134 angler days at: (value/angler/day)		
$13.50	$20.00	$30.00
$1,122,309	$1,662,680	$2,494,020

The primary value of the Skeena salmon/steelhead sport fishery lies in the range from $1.1 million to $2.5 million annually, with the most likely estimate of its worth being $1.7 million. This should not be viewed as a definitive estimate of the value of the sport fishery. Rather, it should be regarded only as an inaccurrate indication of the fishery's value as a recreational resource to the residents of the region.

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1 J. O'Riordan, Value of Sport Fishing in the Okanagan Basin: Preliminary Report #24, prepared for the Okanagan Basin Study Committee, 1972.

2 W.G. Brown, A.K. Singh and J.A. Richards, "Influence of Improved Estimating Techniques on Predicting Net Economic Values for Salmon and Steelhead", cited in T.L. McDaniels, "Estimation of Recreational Benefits, A Case Study: The Economic Value of Recreation in Howe Sound, 1972, 1974 (unpublished).

6.2.2.2 Secondary Sport Fishing Benefits

Secondary benefits represent the economic gain derived by residents of a region due to sport fishing - related expenditures made by non-residents. The procedure for calculating these benefits involves estimating the total amount of non-resident spending attributable to sport fishing and from this subtracting the costs of providing the goods and services purchased (i.e., determining the value added by local residents in the provision of these goods and services). The residual amount represents the net gain or benefit generated by the sport fishery and, therefore, the benefit accruing to the referrent group, the residents of the Skeena region.

This basic method was used by Reid[1] in a study estimating the income accruing to Skeena area residents from non-resident participation in the sport fisheries of the Lower Skeena and Morice-Bulkley Rivers. On average[2], the non-resident sport fishery of the Lower Skeena and Morice-Bulkley Rivers generates $136,079 and $33,580 respectively or nearly $170,000 of net income[3] for residents of the region[4].

These figures, however, include income generated by non-resident participation in trout fishing, an aspect of the region's sport fishery not being considered in this study. To derive an estimate of the income attributable solely to salmon and steelhead fishing, average values of net benefits per angler day generated by non-resident fishermen were calculated by dividing the respective local income components by the total number of non-resident angler days for each area.

Taking these averages and multiplying by the number of non-resident salmon and steelhead angler days gives an estimate of the regional income derived from these sport fisheries.

The local income component of the Upper Skeena and Prince Rupert fisheries, although small by comparison to the Lower Skeena and Morice-Bulkley, is included in the estimates. For purposes of estimating the income increments generated by each of these fisheries, non-resident angler days have been multiplied by the value of average income per angler day as calculated for the Lower Skeena region above.

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[1] D.J. Reid, loc. cit.

[2] Average for the year 1972 and 1973.

[3] Income comprised of wages and salaries, rents, profits, etc.

[4] D.J. Reid, op. cit., p 128

TABLE 6-13

LOCAL INCOME COMPONENT

Fishery	Total Non-Resident Salmon and Steelhead Angler Days	Average Income per Angler Day	Local Income Component
Lower Skeena	13,384	$7.62	$101,990
Morise-Bulkley	5,940	4.49	26,670
Upper Skeena	885	7.62	6,740
Prince Rupert-Tidal	390	7.62	2,970
Total			$138,370

The salmon and steelhead sport fisheries of the Skeena region attract substantial number of non-resident anglers each year. While in the region, non-resident anglers purchase goods and services from local business enterprises - this spending in turn provides income and employment for the region's residents. The analysis above has determined the average net value of non-resident sport fishing in the Skeena region to be approximately $140,000 annually.

6.3 Native Food Fishing

As has been the case for centuries, fishing continues to be an integral part of the life style of the native people of British Columbia's north coast. The region's fishery resources, in addition to providing employment opportunities for natives - either directly in fishing or as shoreworkers in canneries and processing plants - also constitute a staple item in the diet of native people. In fact, it has been found that a substantial portion of the protein intake of natives of the north coast is in the form of fish products with salmon being the principal fish consumed.

6.3.1 The Importance of Food Fishing to the North Coast Native Population

To enable the Fisheries Service to monitor the quantities of salmon and steelhead taken by native peoples for their personal use, each band councillor is issued a permit allowing the members of the band to engage in food fishing activity. During the fishing season the band records the number of fish taken and these reports are submitted to the Fisheries Service. Summaries of these reports form the basis of the analysis to follow.

Table 6-14 contains estimates of the number of salmon and steelhead taken by natives for personal consumption for the years 1969 through 1973. These estimates reflect fish taken throughout the Skeena watershed and in tidal areas in the Skeena estuary. To obtain a truly representative estimate of the size of the native food fishery, the catch over the past five year period has been averaged. A number of factors justify averaging the catch over a period of years as opposed to relying upon a single year. Firstly, fishing conditions are highly variable from year to year depending upon the numbers of fish returning to spawn. The runs of some salmon species in particular follow a predictable cyclical pattern with the numbers of fish being more plentiful in some years than in others. Secondly, the river level at the time when the salmon are migrating upstream is especially crucial for those natives using the gaff as a means of catching salmon. The success of gaff fishing is largely dependent upon low water levels. Thirdly, the Fisheries Service can directly affect the number of salmon taken yearly by natives, through the imposition of restrictions on the number of days food fishing is permitted. The number of days allowed for food fishing depends largely upon the estimated number of fish returning to spawn.

TABLE 6-14

SIZE AND CATCH, NATIVE FOOD FISHERY, 1969-1973
(NUMBER OF FISH CAUGHT)

Year	Sockeye	Coho	Pink	Chum	Chinook	Steelhead	Total
1973	69,729	2,111	8,027	522	1,843	-	82,232
1972	51,843	2,300	6,806	557	2,141	1,218	64,865
1971	79,741	5,393	13,164	820	1,182	1,108	101,408
1970	50,122	2,558	22,129	355	3,338	1,141	79,643
1969	37,266	2,083	2,190	104	1,518	655	43,819
5 year average	57,740	2,889	10,463	472	2,004	824	74,392

Source: Fisheries and Marine Service, Prince Rupert, B.C.

By multiplying the estimates of average annual catch by species by an average weight per fish, we are able to derive the landed weight of fish taken. The average annual landed weight by species for the period 1969-1973 is as follows:

TABLE 6-15

LANDED WEIGHT OF CATCH

Species	Average Annual Landed Weight [1]	% of Total Landed Weight
Sockeye	346,441 lbs.	76.6
Coho	26,001	5.7
Pink	31,390	6.9
Chum	5,659	1.3
Chinook	34,075	7.5
Steelhead	9,068	2.0
Total	452,634	100.0

[1] Assumptions on average weight per fish are as follows: Sockeye - 6 pounds; coho - 9 pounds; pink - 3 pounds; chum - 12 pounds; Chinook - 17 pounds; steelhead - 11 pounds.

On average, during the past five years, native food fishing effort in the Skeena basin and the Prince Rupert region has produced slightly over 450,000 pounds of salmon and steelhead annually. During this same period the catch reached a high of 608,000 pounds in 1971 and a low of 283,000 pounds in 1969. Although the quantity of fish taken during the past two years is below that reported for 1971, this does not indicate that native fishing effort is declining, rather the Fisheries Service believe that the trend is exactly the opposite. More effort is being expended by native people, possibly in response to the higher prices of substitute protein sources, principally beef and pork. Recent declines

in the size of the catch are primarily reflective of poor fishing conditions combined with restrictions on the length of the period during which food fishing is permitted.

6.3.2 The Economic Value of Native Food Fishing

The economic benefit derived by native peoples from food fishing is substantial. The benefit is the saving realized by consuming what is essentially a free good[1] as opposed to purchasing alternative protein sources such as meat and poultry products.

The procedure for estimating the economic benefit derived by natives from food fishing involved applying a dollar value per pound to the average landed weight of fish taken[2]. In this instance the wholesale value measure was used as it was viewed as being a closer approximation of the value natives would attribute to this resource. Average wholesale values expressed on a per pound basis were calculated for each species for the period 1969 to 1973 and were in turn multiplied by the landed weights to give the average annual gross economic value of fish taken (see Table 6-16).

Based on averages of landed weights and wholesale prices derived for the past five years, the native food industry is estimated to have a gross economic value of approximately $423,000 annually. However, this estimate understates the value of the resource based on current wholesale fish product prices. Between the 1972 and 1973 fishing seasons both landed and wholesale prices increased dramatically - for instance, the wholesale price of sockeye salmon rose from 99¢ to $1.45 per pound which represents a 48 percent increase in price in one year. To reflect the sizable price increases experienced since 1972, the value of the food fishery has been recalculated using average landings as determined above and current (1973) wholesale prices. Using this method the annual value of the food fishing

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[1] Some costs are incurred in catching, processing and preserving the fish, therefore, the true measure of the net benefit derived from food fishing would equal the market value of the fish less all procurement costs. This difference represents the net value or benefit of food fishing from the native point of view. As it is difficult to estimate the magnitude of the procurement costs, the analysis will involve the estimation of the food fishery in gross value terms only.

[2] Fishery Service statistics use two measures for expressing the value of fish products. One is the landed value, the price paid the fisherman for his catch; and the other is the wholesale value or the price charged by the cannery for its processed product.

TABLE 6-16

AVERAGE ANNUAL WHOLESALE VALUE OF NATIVE FOOD FISHERY
ASSUMING AVERAGE ANNUAL WHOLESALE PRICES

	Sockeye	Coho	Pink	Chum	Chinook	Steelhead	Total
Average Annual Landed Weight (pounds)	346,441	26,001	31,390	5,659	34,075	9,068	452,634
Average Wholesale[1] Price Per Pound ($)	1.00	0.758	0.588	0.504	0.858	0.658	
Average Annual Wholesale Value ($)	346,441	19,709	18,457	2,852	29,236	5,967	422,662

[1] From "Fisheries Statistics of British Columbia 1973", Department of Environment, Fisheries and Marine Service, Pacific Region, 1974.

resource is considerably higher. Assuming that the trend toward higher food prices continues, it seems likely that in the near term the value of the native food fishery will be in excess of $600,000 annually. As it is derived using existing price relationships, this estimate is considered to reflect more accurately the current value native people attribute to the food fishing resource (see Table 6-17).

The estimated value of the Skeena/Prince Rupert food fishery calculated above only reflects the dollar value of this resource and not the socio-cultural benefits associated with it. Food fishing is part of the cultural heritage of the native people and as such is of incalculable value to them. Although it has been observed[1] that recent generations of native people attach less value to food fishing as a way of life, it nevertheless continues to be an obvious link with the past for many native people. For this group the food fishery would certainly have a high value, but it is impossible to specify with any measure of precision what this value might be.

6.4 Harbour Fronting Activities

During 1973, the Port of Prince Rupert was frequented by a total of 71 deepsea vessels, most of which loaded grain, newsprint and forest products destined for export markets.

The contribution of deepsea shipping to the local economy is at the present time almost nil. From discussions with the National Harbours Board representative in Prince Rupert, it was learned that deepsea vessels purchase virtually no supplies while berthed at the port. The bunkering and provisioning of vessels is largely done at other ports of call, either because the necessary supplies are unavailable in Prince Rupert or because they may be purchased at less cost elsewhere.

The movement of coal and mineral concentrates through Prince Rupert would result in an additional 250 to 300 vessels visiting the port annually[2]. This projection is comprised of 100 visits by vessels 100,000 dwt or larger and 150 to 200 visits by vessels in the 15,000 to 50,000 dwt range. This level of activity may warrant the establishment of ship provisioning and bunkering operations in Prince Rupert at some point in the future. Development of either type of enterprise would lead to the creation of employment opportunities and income within the community.

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1 R. Kussat and Petersen, An Assessment of the Effects on the Morice and Bulkley River Systems of a Pulp Mill at Houston, B.C. Department of the Environment, Fisheries and Marine Service, 1972.

2 Swan Wooster Engineering Co. Ltd., Bulk Marine Terminal Sites in the Prince Rupert Area of British Columbia (Engineering Aspects), Swan Wooster Engineering Co. Ltd., 1974.

TABLE 6-17

AVERAGE ANNUAL WHOLESALE VALUE OF NATIVE FOOD FISHING
ASSUMING 1973 WHOLESALE PRICES

	Sockeye	Coho	Pink	Chum	Chinook	Steelhead	Total
Average Annual Landed Weight (pounds)	346,441	26,001	31,390	5,659	34,075	9,068	452,634
Average Wholesale Price per Pound ($)	1.45	1.12	0.93	0.78	1.23	0.97	
Average Annual Wholesale Value ($)	502,339	29,121	29,173	4,414	41,912	8,796	615,755

Based on the experience of vessels frequenting Westshore Terminals (Robert's Bank), the potential for bunkering ships 100,000 dwt and larger appears limited. Vessels of this size carry sufficient fuel for the return voyage between Japan and British Columbia, therefore it is expected that ships of this size would not require bunkering while in Prince Rupert. It is unclear whether the smaller vessels (those averaging 25,000 dwt.) expected to frequent Prince Rupert will require fueling before proceeding to their next destination. However, bunkering of all vessels may be precluded in any case by regulation should the hazards posed by potential oil spills be perceived as serious[1].

Bunker fuel costs may be such as to make it uneconomic for ships to take on fuel while in Prince Rupert. At present there is no petroleum refining capacity located in B.C.'s north coast, therefore, to make fueling of vessels physically possible, bunker fuel will have to be transported to Prince Rupert, thus adding an additional increment to its cost.

While it appears that little scope exists for bunkering deepsea vessels frequenting Prince Rupert, it seems highly likely that a sub sector, providing food supplies to visiting ships, will develop. To estimate the potential economic impact this activity might have upon the community, we have assessed the food purchasing patterns of vessels transporting coal from Robert's Bank to Japan. On average, the dollar value of food provisions purchased by these ships varies from $700 to $1,000 per vessel visit[1]. Assuming that on a per vessel basis the food purchases of ships expected to frequent Prince Rupert are in this range, then on an annual basis the volume of business created by these additional vessels will be in the order of $175,000 to $300,000 per year. As many as five people earning upwards of $50,000 ($10,000 per person average) per year could be expected to be employed in this activity[2]. Taking into account the direct and indirect impacts of this activity, effectively 10 to 15 additional jobs and approximately $100,000 of added income could be generated within the community.

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[1] A restriction prohibiting the bunkering of vessels is currently in force at Robert's Bank.

[2] Mikado Enterprises, Vancouver, B.C.

ANNEX

ANNEX B-1

LIST OF INTERVIEWEES

Formal - Two self-employed businessmen.
Four civil servants.
Three union officials.
Two managers (business).
Two elected civic officers.
One transport manager.
One political-environmental activist.
One non-political environmental activist.
Four teachers.
Two teachers-administrators.
Two classes of high school students.
One archeologist.

Informal- Gas station front-end worker (this was closer to a formal interview, it lasted almost a half hour on the job).
Store and hotel clerk-receptionist.
Mill workers.
Construction workers (spoke with several, and on one occasion spent some time with six workers).
Tug crewmen.
Fishermen.
Restaurant employees.
Office receptionists.
Medical doctor.
Unemployed (two, both males).

Port Simpson - Residents or Exresidents

- One fishermen.
One union official.
One employed.
One civil servant.
One archeologist (whose wife is a native of Port Simpson).

ANNEX B-2

This annex contains twelve edited summaries of a selection of the formal interviews. They are presented here as examples of the respondents interviewed, and as indications of the range of topics and attitudes present in the formal interviews.

1. Federal government official, middle-aged, approximately five years in Prince Rupert but previously on the Queen Charlotte Islands.

The proposed harbour developments, specifically the bulk loading operations, have not provided for barge traffic which is the coastal mode of supply. The needs of the tow-barge system are specific and cannot be served efficiently by facilities designed for coastal freighter type shipping.

The service (freight) from Prince Rupert to outpost communities is apparently significant in scale and obviously of great importance to the communities served, no matter how small they might be. There are inadequate warehouse facilities for these outshipments. Consequently, weather or shipping delays mean that supplies must be stored back at the supplier, or held on the transports, or simply dumped on the dock. It is suggested that a covered facility be provided both in Prince Rupert and at the outposts.

Despite the lively activity in construction here, there is no local lumber mill. At present, depending on the grade required, lumber is supplied from Terrace or Vancouver.

The Port Edward area is rapidly become an Indian township. The canneries attract workers and many stay on in the district rather than return to their original homes. The canning season carries over close to the herring season, which encourages this trend. Various problems arise as a result of this settlement trend, particularly in the schools.

(Several of these comments were contradicted by later respondents.)

There is a sense of competition between Prince Rupert and Terrance, and the provincial government favours Terrace. The alleged climatic advantages Terrace has over Prince Rupert are illusory- Terrace has as much difficulty transportation-wise with snow as Prince Rupert has with rain and fog.

2. Casual interview with female doctor (MD), mid-20's. Works for federal government mainly in servicing the outer villages.

Hates the place, has been here about eight months, and is not going to stay, even though she recognizes the need for medical services. Says money not the problem. Basic complaint was lack of entertainment. Regarding outdoor recreation here, she said "O.K. if you like that kind of thing". Being from London, England, she misses the theatre and other metro benefits. Only favourable comment was that the library was good. Another complaint was working conditions. Says weather requires frequent stop-overs in outer villages where accommodation is primitive. The doctor declined to express an opinion on growth-development, as she said she had not been here long enough to comment. Improvement required? Says more medical specialists needed in district instead of transporting patients to Vancouver.

3. Canada Manpower official, male, over one year here, previously in Victoria, native Indian.

The major problem here is isolation, which is the result of transportation costs and the climate. To a lesser extent, there is a social division here, not pronounced or malignant, but present between the permanent population and the transients.

(This was the only comment on transients that was made.)

The permanent population tends to dominate the local political life and social life and moves in its own circle. However, outside of that, the recreation-entertainment is good here, very little not available.

The town is a good employment town. During season, lots of work of all kinds, demand is beyond the capacity of the local labour pool. The seasonal pattern of employment is not lessening, nor does he expect it to. There is no trend of seasonal workers taking up permanent location at Port Edward. Port Edward, however, does not house seasonal workers as most tend to stay with relatives and friends.

Job training is a success in Prince Rupert even though there are no local facilities and it is all done "on-the-job". Adult evening programs are good and will include some vocational offerings. The nearest vocational facilities are at Terrace and they are not used to capacity.

He does not plan to stay in Prince Rupert. The greeting used here, he says, is "when are you planning to leave?" (Joined by manager, Canada Manpower, male, early 30's, brusque and business-like.)

Canada Manpower manager has been here less than six months, has not really experienced a winter here. Previous postings include Prince George, Okanagan area, and Vancouver. He does not intend to stay in Prince Rupert. Sees Prince Rupert as a great, friendly, "pulsating" town. Great potential frustrated by lack of political decision. There is strong political interest here, but no news. Only CBC and the delayed CTV program.

The Port development is small in terms of the employment it will offer but it is "the gut of development". Without it, the new retail development will go under. Employment and income levels are high here - which is why service industries have difficulty getting staff.

Major problem really is housing and transient accommodation. There is no objective reason for this. Muskeg and rock make housing expensive but it need not be prohibitive. It is really the civic authorities dragging their feet. He said that attitude in Prince Rupert is transient, even with permanent residents.

There are no social problems here, no youth gangs or significant drug use. The town could use one or more quality restaurants.

4. City manager, male, lower middle age, part of the permanent population.

Growth has been building for past five years or so, and in that time a great deal has been done in the town. The overall regional growth is not yet clear and its contribution to recent growth has been minimal "unless the developers know more than the city does about future growth".

Housing is bad, but that's not peculiar to Prince Rupert. Over the next two or three years, he expects housing to be stabilized. Part of the present housing problem is the construction boom bringing in outside workers.

There is a core of "small-town" advocates in Prince Rupert, permanent, long time residents mostly. They possibly influence two, perhaps three of the town's aldermen. Environmentalism is not a big issue here. The oil refinery opposition is concerning its location in the city rather than its presence in the region.

Aesthetic concerns are not big here either but he argued there is a trend toward beautification of the town and he expects in future more will be done to get developers in line on this facet of development.

Isolation is a myth factor in his opinion. Town is well served by transportation and its location "only relatively isolated". Anyway, many like isolation.

5. United Fishermen and Allied Workers Union. Chief executive officer out of town, spoke with man (and receptionist); man, mid 30's, native(?) slow to respond and not eager to talk.

Local dock conditions are not good and the harbour needs policing for driftwood and speeders. Many boats are damaged and some have been sunk. The waterfront should be organized to keep various uses (fishing, recreation, shipping, etc.) apart from each other. The air-sea rescue services should be upgraded and on 24 hour call. At present, it is inadequate.

(A later respondent, employed in the hospital, challenged this view - said he was not aware of any complaints. On the contrary, he had heard them often complimented on air-sea rescue service.)

Development is O.K. but it does have a bad effect on housing and the cost of living, especially bad for fixed income people.

The union has a loose pollution reported procedure for members to notify union of cases of pollution but actually not much done to encourage or build on this.

Fire, water, and electricity services need to be improved at the dockside.

6. International Brotherhood of Carpenters Union. Young male, mid 20's, white, permanent resident, likes Prince Rupert. Obviously highly respected by all in office, including the UFAW man who came across the hall with me and stayed for most of the interview. The receptionist also contributed, as did two union members who came in.

He is involved in NDP local activity, at least at support level, and is an environmentalist. He disagreed with my impression that environment was <u>not</u> big here and gave me several names of active environmentalists.

Favours controlled growth in situation of strong community input. Specifically against coal/oil traffic but agreed that under protective conditions Port would not be opposed.

Says seasonal pattern could be reduced by better planning (staggering) of construction, etc. This would cut the rush for overtime in anticipation of winter lay-off, and reduce the transient mentality of the town.

Says natives are not on the surface concerned with environment but this is because of their environment in the reserve structure. Went on to say they become involved once the scale of discussion is raised to the region. Predicts they will be increasingly concerned with environment as land claims are dealt with.

Says all unions and many other groups have active environmental concerns but conceded that they are not well organized and perhaps too reactive.

Says there is a minority of no-growth advocates in Prince Rupert but most favour controlled growth. Says environmentalist feeling is strong enough that it could inhibit growth if development does not involve protection of the environment. Argues that without specific idea of development plans, environmental groups have difficulty in showing strength.

Recreation facilities in Prince Rupert quite good but demand is growing for more. Says service clubs have a good record in Prince Rupert for providing parks and other recreational facilities.

He expressed a grudging respect for the district MP, Campagnolo, and conceded that she had done a great deal of work for the district.

7. Woman NDP activist, environmentalist, local resident, committed to Prince Rupert.

Began by saying there was a great deal of environmental concern in Prince Rupert. But almost immediately went on to discuss problems facing environmentalists. Said, without visible issues, difficult to raise public concern, and without some success it is difficult to keep it up.

Obvious problems, like smoke from the mill, attract attention but ... "if it's only ugly, then people don't care".

Quite pessimistic regarding long term influence of public concern and believed that the civic government was beyond reach of public opinion. Also expressed disappointment that Provincial government had not done more to involve local community in development planning.

8. Woman, late 20's, wife of professional, several years in Prince Rupert and intends to stay. Has small family. This respondent was interviewed on two separate occasions; once on her own, and once in the company of her husband (who is active in local politics) and other local political people.

In general, this respondent is part of the "liberal", aware, suburban intelligencia, and has a concern for environmental matters, and tempermentally inclines towards a "no-growth" position. She believes that "protest against development" potential in the town is high but recognises that in the past it has been ineffectual. She, like many, has formed an active opinion group arising from the civic park campaign, which raised considerable support (4,000 names on petition) but failed to influence the decision makers.

Says there is a high level of segregation in Prince Rupert, citing the area in town on 3rd called "Apache Alley", a one block section that attracts many natives to its beer parlours - restaurants - pool hall, -etc., - and the discrimination against natives practised by a number of hotels. Says alcoholism is a problem in Prince Rupert, also VD. Says native women exploited by white males. She is strong women's liberation advocate but finds little support for her view in Prince Rupert and none at all outside of her social circle. Says there is a social hierarchy of sorts in Prince Rupert based on income - occupation criteria, and is aware of the social homogeneity apparent in the public places but does not take that as a true indication of Prince Rupert's social order.

(Later, a second respondent joined us.) Says some hotels-motels have a policy of not renting to "outside" natives, that is, those coming into Prince Rupert from elsewhere. Not all hotels subscribe to this policy but most do. The two respondents disagreed as to whether this was a case of racial discrimination or simply a sensible business response to the party activity usually engaged in by transient natives.

9. Spent most of a morning at Prince Rupert Senior High School. Met principal (40's, male, white, long time resident); District Superintendent, (50's, male, white, long time resident); and social division head (20's, male, white, three years in Prince Rupert and intends to stay). Also met approximately 28 Grade 12 students for an hour, and a second group of about 20 Grade 9 students, also for about an hour. Also met, on a more casual basis, several other teachers.

The Grade 12 students were vaguely anti-establishment, but not pronounced. Almost all have lived in Prince Rupert over three years. All but one intended to leave after graduation, most of them to continue education. Of the 27 leaving, only a handful (four or five) expected to return after post-secondary education. Major

complaints, climate and isolation, and lack of variety in leisure activities. At one level, there was a general feeling that development in Prince Rupert was not good, since they said they liked the small town feeling. But conversely, all but a few saw a need for development to improve town services, provide jobs, and continue the exploitation of the regional resources. I put the hypothetical question to them - total growth or no growth. The class broke down into two groups, of approximately equal size. But, the total growth group contained only one girl,while the no growth group had only two boys in it, plus the (male) teacher. (I noticed that the class room, which had moveable furniture, and was not subject to the teacher's assignment of place, was in fact segregated by sex.)

The growth of social-educational-civic services was accepted by all and not considered as economic growth. Some students favoured the idea of providing post-secondary schooling in Prince Rupert but majority preferred the idea of leaving Prince Rupert for higher education.

There was considerable support for the idea of satellization (which they brought up themselves) - that is, to have development/ growth concentrated in several nodes rather than in one center.

The Grade 9 group was similar to Grade 12 in viewpoint. They see themselves as different from adults, as did to a lesser degree the Grade 12's. They are quite pessimistic so far as environmental protection is concerned and think not only that people cannot influence government but also that adulthood reduces the desire to influence. They had it in a kind of equation which went: job + family = readiness to let things go.

The teachers (four were actually spoken with at sufficient length to register opinions) were by and large more optimistic than the students. The staff notice board carried a notice of an anti-refinery meeting. However, the principal and the superintendent (especially the superintendent) were both skeptical of the public role in questions of development. The superintendent favoured growth and wanted it governed by experts in science. Teachers listened to this viewpoint being expressed but did not enter the conversation and I got the impression this was an old dispute in the staff room.

The principal said natives are not a problem in the school except in the sense of having a high drop-out rate. Said natives were not a cohesive group but greatly divided by old tribal and band relationships. For that reason, while favouring trend to self-rule in education, thought native self-government would not go far. Said too

much was done to protect native welfare, which was gone anyway, and not enough to protect the dominant white culture.

10. Federal government official, male, 50's, northern resident for many years.

Completely cynical regarding native potential for self-development in government. Says natives are not really concerned to get into white men's disputes and they see environment as a white concern. Majority of natives are spasmodic workers, depending on welfare and unemployment insurance. Those who are otherwise, tend to separate themselves from the reserves and loosen contacts with own people. Hence, job training programs reduce the pool of capable people on the reserves.

Says there are many benefits offered by government to natives today and they are all alert to and aware of benefits.

He feels growth is inevitable in Prince Rupert district, and the town will benefit from it. Environment is not an issue here.

11. Businessman, self-employed, 40's, permanent resident. Has many interests in town, both economic and political.

Growth in Prince Rupert and district has been steady over recent years, long overdue, and given government competence, inevitable. There is no opposition to growth in general but potential exists for opposition to grossly misconceived or badly designed projects. Cited the proposed oil refinery as a case of inept development planning. Says the provincial government is ill-advised regarding Prince Rupert's attitude towards growth. There is, he says, strong support for more growth in Prince Rupert. The coal export study which appeared to favour Howe Sound over Prince Rupert led to the loss of the legislature seat for local MLA. There are some environmental groups active in town but they have been quiet of late, and he doubts they could again raise the support they had two or three years ago.

Recreation facilities in Prince Rupert are good and virtually comprehensive. Ironically, all that's missing is an ocean bathing area - water too cold. Favours opening a warm water lake in an area out from town for recreation - i.e. needs road.

Believes local mountain (Hays Mountain) will become a "green belt recreation area". (He has a vested interest in ski facility there.) Remarked that some while ago an owner of timber on the mountain opened a logging show and brought down local protest on his head. Later, an entire ski run was cut without any protest at all.

Says some kind of aesthetic planning control needed in Prince Rupert. At present outside developers get things their own way while local would-be developers are discriminated against by civic authorities. Attributed this to local economic competition - i.e. locals opposing each other to prevent anyone getting an advantage.

Housing is bad but could be improved if proper tax policies were implemented. (He argued the professional tax shelter case at some length.)

The really big development in Prince Rupert is eight to ten years off. Meanwhile, the general development of town and Port (bulk loading, etc.) will go ahead as we presently see it. "People don't involve themselves with development, it goes on around them. Not until it affects their daily lives in a direct way do they sit up and take notice." And by then all the main decisions have already been taken.

In general, he is satisfied with the way things are going but would like to see more information on potential development patterns. (He is a land owner and said he would not put his lots on the housing market until the situation - tax and rental controls, etc.- changes to return the benefits investors had under earlier tax laws.)

12. Male, Haida, mid 30's, local resident, technical-managerial position.

There is a band/clan/tribe difference in the native population and it does restrict the amount of cooperation they have. It is lessening somewhat but it is still there. Also, there is tension between natives still in the native environment and those who, like him, have left it.

There is no point in training people on the reserves unless there are jobs there. So job-training makes no sense unless it is part of a program of reserve development.

He is anti-NDP and says "Howard spent 16 years doing nothing for the Indians". Campagnolo, on the other hand, will do a great deal, "She went into every village". The NDP tries to do too much from Victoria, much more local authority is needed.

Indians do not care about white disputes over development and pollution. They have a viable culture and once they get control over their own land, they will not need the whites.