

CHAPTER 3

Economic Base

Rarely do economic regional boundaries correspond to those of natural watersheds, but the Okanagan Valley does contain a mix of economic activities which distinguish it from neighbouring regions. The basin does not represent a self-contained economy however, but rather a portion of the growing economic base in Southern British Columbia. Thus, it is necessary to recognize that economic forces beyond the basin have been, and will continue to be, instrumental in shaping economic development within its boundaries.

Between 1961 and 1971, the economy of the Okanagan Valley has been in a process of transition. The economic structure of the region has moved rapidly from being dominated by primary or resource-based activities in agriculture, forestry and mining, to one dependent upon secondary and tertiary economic activities associated with non-resource based manufacturing, tourist and service industries. This change is essentially the result of the Federal Government's Regional Incentives Program which provided government grants and subsidies to both new and expanding industries in the Okanagan between 1965 and 1971. Almost \$100 million of industrial development occurred in the basin as a direct consequence of this program.

This industrial expansion has significantly quickened the pace of growth in the Okanagan over the past 10 years due to the availability of employment opportunities which have in turn, stimulated population growth. The increased rate of economic growth has placed greater demands upon the Okanagan water resource for water supply and the assimilation of industrial and municipal wastes. Consequently, it is important to understand how the Okanagan basin economy has grown over the past decade so that projections of future growth to 2020 can be undertaken and the consequences of such growth on water resource management be assessed.

This chapter discusses some of the reasons for economic growth in the valley and describes the present structure of the Okanagan economy. It begins with an overview of the growth of population and employment since 1961 and then examines growth in the major economic sectors including manufacturing industry, agriculture, forestry, mining, recreation and tourism. Most of the information base used in the following discussion was obtained from Statistics Canada census data and from an economic survey of sampled business activities in the basin. These data were used to prepare an economic model of the basin for projecting economic growth over the next 50 years. This model is discussed in Chapter 13.

3.1 POPULATION

The population in the Okanagan Basin in 1971 was approximately 114,500 or about 5.2% of the Provincial total. Between 1961 and 1971, the valley's population increased by 39,500 or 52.8% compared to a population growth of 34.1% for British Columbia as a whole. Most of this growth in the Okanagan occurred between 1966 and 1971, when the population increased by 30.2% compared to 16.6% for the Province - a direct result of the Industrial development program initiated in 1965.

As population statistics for the Okanagan Valley itself are only available from 1961, analysis of longer time-trends of population growth in the region must rely on data pertaining to census subdivisions 3A and 3B, the boundaries of which are illustrated in Figure 3.1, and approximately conform to the area covered by the three Regional Districts of North Okanagan, Central Okanagan and Okanagan-Similkameen. Population growth trends for the period 1940-71 for these three census subdivisions are shown in Figure 3.2, and are compared with population growth for the Okanagan Basin for the last decade of this period. This figure clearly indicates the relative increase in the rate of population growth over the past ten years.

Inward migration has played a significant role in population growth, accounting for over 50% of the total increase in the two census subdivisions

TABLE 3.1
POPULATION CHANGE BY TYPE IN
CENSUS SUB-DIVISIONS 3A, 3B, 6B, 1951-1971

PERIOD	CENSUS. SUB-DIVISION		TOTAL	%
	3A	3B		
1951-56 Total Increase	4,871	1,960	6,831	
Natural Increase	3,094	2,191	5,285	78
Net In-migration	1,777	- 231	1,546	22
1956-61 Total Increase	7,376	1,720	9,096	
Natural Increase	3,671	1,850	5,521	61
Net In-migration	3,705	- 130	3,575	39
1961-66 Total Increase	9,494	1,851	11,345	
Natural Increase	2,937	1,377	4,314	37
Net In-migration	6,557	474	7,021	63

Census

statistics for 1966-71 are not yet available.

(-) denotes net outward migration

Source: Population Statistics, Statistics Canada

PLAN SHOWING LAND MANAGEMENT STATUS

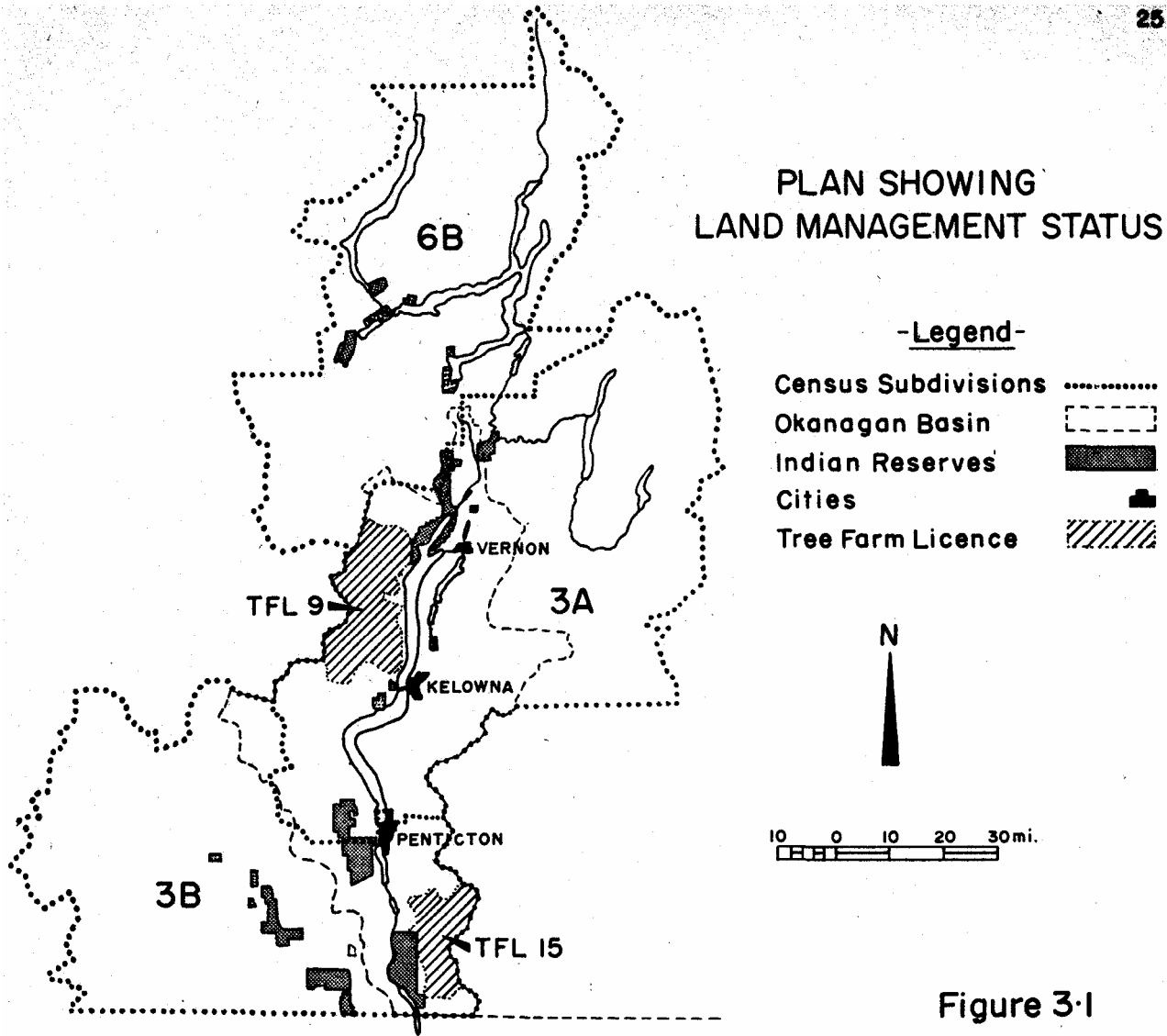
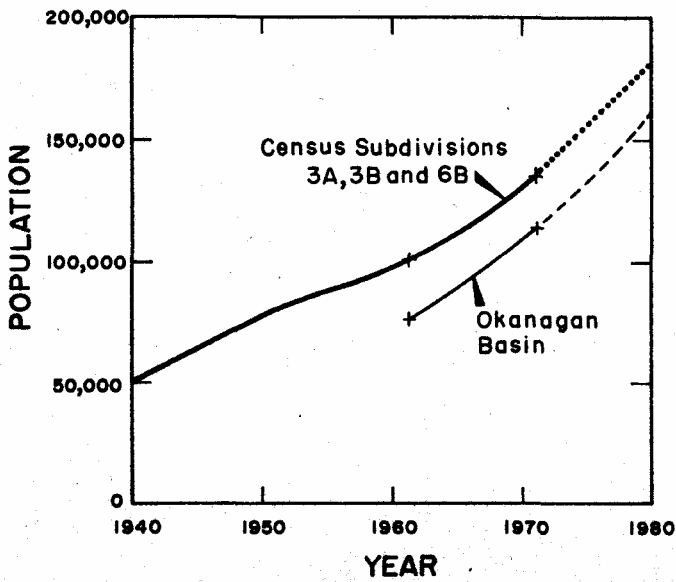


Figure 3-1



POPULATION GROWTH in the CENSUS SUBDIVISIONS 3A, 3B, and 6B and in the OKANAGAN BASIN.

Figure 3-2

between 1951 and 1966 (Table 3.1). Natural births accounted for the balance. Indeed, net in-migration into census sub-division 3A (North and Central Okanagan) which has incurred the largest population growth has accounted for over 60% of the total increase in that subdivision. The reasons for the high proportion of net in-migration in population growth include the increased availability of jobs during the 1960's and the relatively low regional birth rate, due to the high proportion of older people in the population structure.

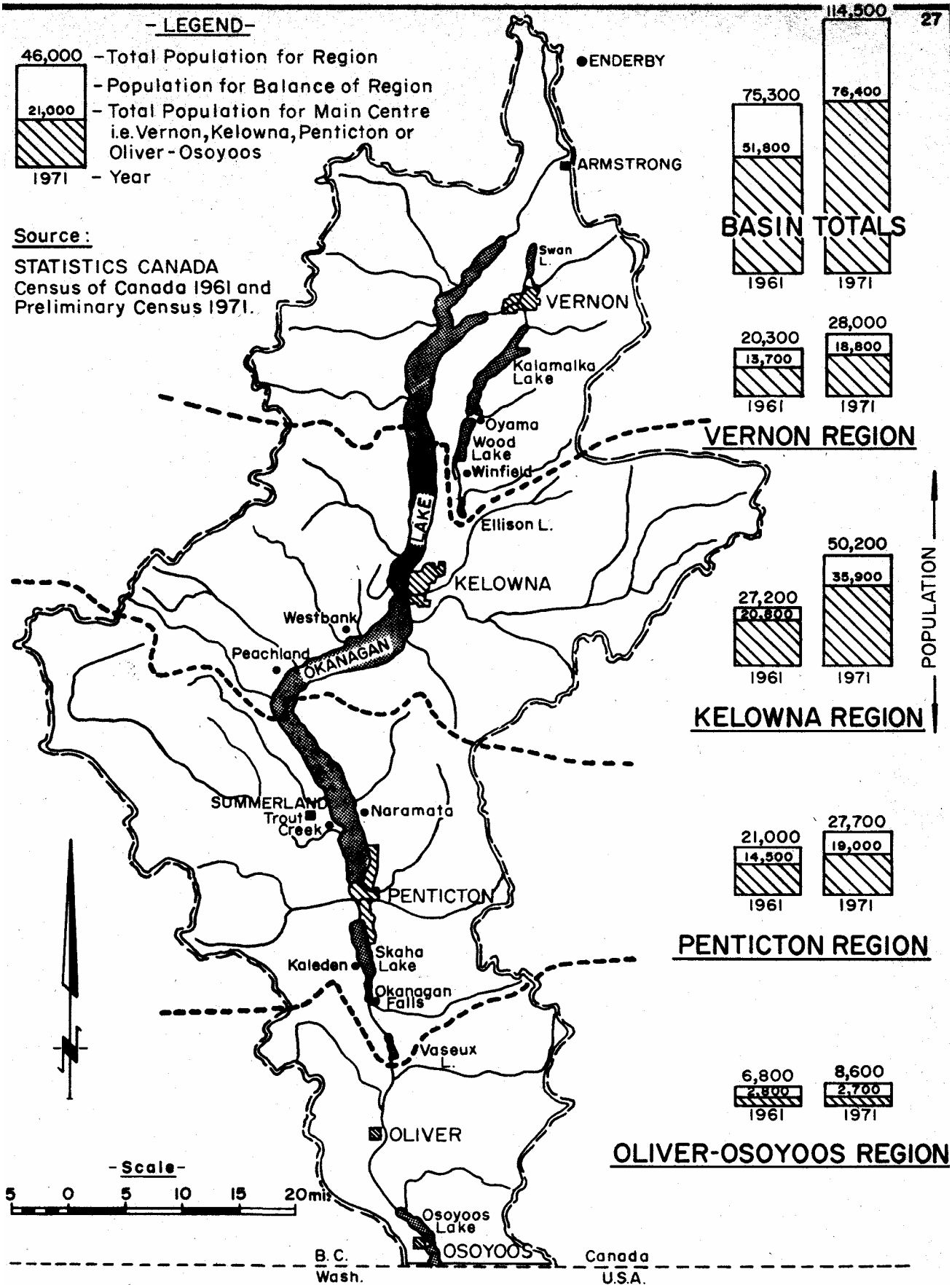
This high proportion of older people in the Okanagan compared to the Province as a whole is illustrated in Table 3.2 and is probably a reflection of the region's popularity as a retirement centre. Table 3.2 also indicates that there are relatively less persons in the 15-34 age groups, a common feature of smaller economic regions where job opportunities have been limited in the past and the young people migrate to the large urban centres. It appears likely that this later imbalance could be reduced in the future as opportunities for employment and education increase and diversify along with the expansion of population.

TABLE 3.2
AGE GROUP DISTRIBUTION, 1971

AGE (Years)	OKANAGAN-SIMILKAMEEN CENSUS DIVISIONS	BRITISH COLUMBIA
0-14	28%	28%
15-34	26%	31%
35-54	23%	23%
55-over	23%	18%

Population growth has not occurred at equal rates in all regions of the Okanagan Basin (Figure 3.3). The Central Okanagan region, extending from Peachland to Winfield and including Kelowna has experienced the fastest rate of growth over the past decade, its population increasing by over 83% to reach 50,100 in 1971. As will be noted in the next section, much of this rapid growth has been due to the concomitant increase in job opportunities in manufacturing and service industries.

Population in other regions of the basin has grown at less than half the pace of that experienced in the Kelowna region over the past decade. The Oliver-Osoyoos regional population increased by 28% to 8700 in 1971 due primarily to tourist industry development and an influx of retired persons. The Penticton and Vernon regional populations grew by 32% and 40% respectively due to expansion of tourism, manufacturing and associated retail and service trades.



POPULATION BY ECONOMIC REGION IN THE OKANAGAN BASIN FOR 1961 AND 1971. Figure 3.3

3.2 EMPLOYMENT

The growth of population can be directly related to the growth of employment in the Okanagan. Generally speaking, regions such as the Okanagan Basin experience economic growth because they are able to produce goods which can be exported to other regions in British Columbia or elsewhere. Until the mid-1960's, the Okanagan economy relied upon the production and export of primary resource products in agriculture, forestry and mining, most of which were sold to the rest of the Province and Canada. These primary economic activities stimulated employment which in turn created a demand for a wide range of goods and services, such as education, health care, retail shopping, finance. These service trades themselves employed people who, with their families and dependents, created more demands for services.

The money earned through the export of primary resources is re-invested in these primary economic activities creating more jobs both in the industries themselves, and in the service or support industries that supply materials for production. For example, increased exports of tree fruits requires a greater demand for packing cartons which in turn requires greater production in the logging industry resulting in a spiraling growth.

As a result of the introduction of the Federal Government's Industrial Incentive Program, the primary resource based activities have been superseded by non-resource based manufacturing as the major growth-creating industry. These non-resource based industries which include the manufacture of mobile homes, boats, trailers, glass, chemicals, etc. are not dependent upon the primary resource base in the Okanagan, nor are they directly dependent upon the proximity of markets. Rather they are sometimes referred to as 'footloose' industries because they can locate in any region where there are good transportation links with the supply of raw materials and the markets. The offer of financial incentives to locate in the Okanagan was a deciding factor for many firms which were affected by the high economic and environmental costs of locating in major urban centres in British Columbia or elsewhere.

To indicate the importance of how basic industries influence population growth, it has been estimated that one job created in the basic sector creates an additional 3 jobs in the non-basic or service industries, including health care, education, retail and other personal services. As each employed person generally has about 2.5 dependents (spouses, children), total population would grow by about 10 persons. In other words, creation of 100 new jobs in the basic industries could increase the valley population by over 1000 people.

Table 3.3 Indicates that over the past decade, employment increased by almost 10,000 jobs, mostly in non-resource based manufacturing (1,440 jobs), retail and service trades (3,510 jobs) and health and education (1,450 jobs).

Agricultural and logging sectors experienced a decline in employment over the same period, while employment in mining increased due to the opening of the Brenda Mine near Peachland. Although agricultural production increased over the past decade, there has been a reduction in agricultural employment. This decline can be attributed to a number of factors including increasing competition from American and European suppliers of tree fruits, sub-division of agricultural land for housing and industrial expansion and increases of productivity per worker. Similarly, declines in logging employment are not reflective of a decrease in output, but rather are a result of increased productivity. As a result of these changes, there has been a proportional shift in employment by sector, retail and service trades employing over 69% of the Okanagan labour force in 1970 compared with 65% in 1961, while employment in the primary activities has dropped from almost 19% to 11% over the same period.

TABLE 3.3
EMPLOYMENT BY SECTOR - 1961 TO 1970

SECTOR	EMPLOYMENT		SHARE OF TOTAL EMPLOYMENT	
	1961	1970	1961	1970
Agriculture	2,930	2,650	15.7%	9.3%
Mining	40	360	0.2	1.3
Logging	500	300	2.7	1.0
Manufacturing - Resource Based	1,650	2,010	8.9	7.1
	720	2,160	3.9	7.6
Services - Tourism	640	1,230	3.4	4.3
Services - Retail	12,130	19,760	65.2	69.4
TOTAL	18,610	28,470	100.0	100.0

Source

: 1.
Estimates

developed from Statistics Canada, Census of Manufacturing, Agriculture, Merchandising and Labour Force, 1961.

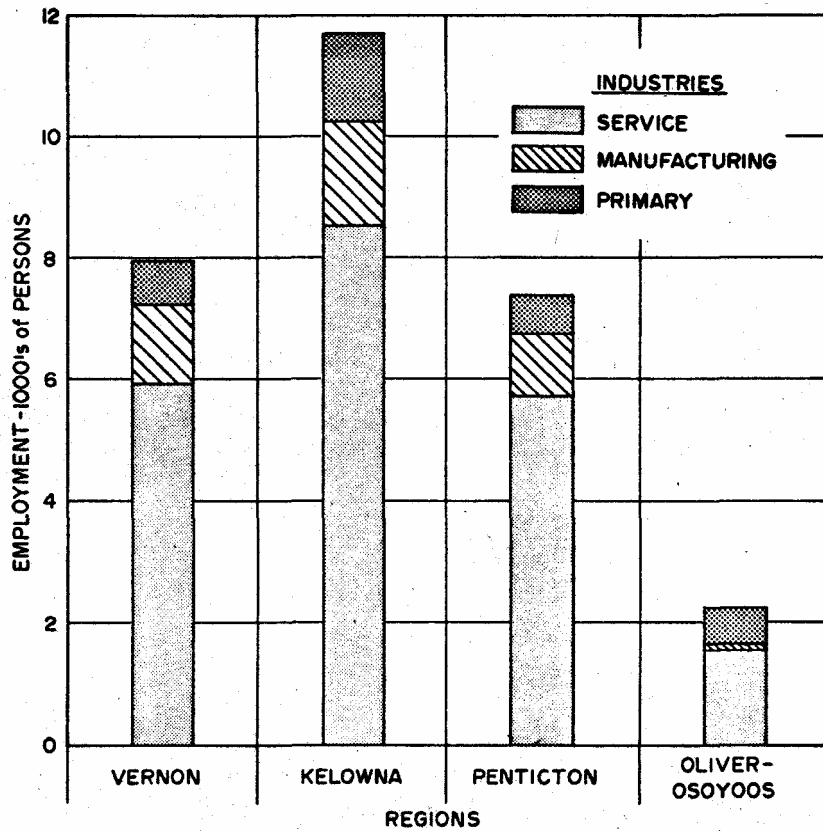
The rapidly increasing importance of non-resource based manufacturing is further illustrated in Table 3.4, which presents the value of total production and actual income that remains in the Okanagan generated by the major basic industries - agriculture, manufacturing and tourism. The value of production in non-resource based manufacturing has increased about seven times and the value of income about three times during the past decade, making it the leading industry in the growth-inducing sector of the economy. Despite the reduction in actual employment in the agricultural sector, the value of its production increased by over 30% between 1961 and 1970, while the value of services and expenditures by tourists more than doubled over the same period.

TABLE 3.4
VALUE OF PRODUCTION IN BASIC INDUSTRIES - 1970

SECTOR	VALUE OF PRODUCTION		VALUE OF INCOME ¹	
	1961	1970	1961	1970
	(\$1,000 Constant 1970 Dollars)		(\$1,000 Constant 1970 Dollars)	
Agriculture	31,970	40,300	9,930	11,680
Manufacturing	32,940	49,710	10,830	12,160
Resource Based				
Non-resource Based	11,290	77,860	5,790	15,610
Tourism	5,530	11,240	2,580	5,160
Other (Service and Retail)	N.A.	319,460	N.A.	153,090
TOTAL	-----	498,570	-----	197,700

1. Income includes wages, salaries, rents and other income that remains in the Okanagan Basin

SOURCE: Estimated from Questionnaire Survey undertaken by Socio-Economic Task Force, 1971-72.



EMPLOYMENT DISTRIBUTION BY REGION, 1970 Figure 3.4

As expected, the geographical distribution of employment opportunities closely parallels that of population (Figure 3.4). The Kelowna region provides over 40% of all jobs in manufacturing industries, followed by the Vernon region (32%), Penticton region (25%) and Oliver-Osoyoos (3%). This employment pattern is basically the same for the large service industry sectors, but varies somewhat for other sectors such as agriculture in which the Vernon region is of primary importance and the tourist industry which is most highly developed in the Penticton region.

3.3 LAND USE

An understanding of existing landuse is basic to any analysis of the economy of the Okanagan. It affects the availability of water should lands be irrigated, and it affects the quality of water as a result of surface and groundwater run-off from land-based economic activities (deforestation, roads and paving etc.).

TABLE 3.5
LAND USE IN THE OKANAGAN BASIN 1970
(in round figures)

LAND USE	ACRES	SUBTOTAL ACRES	PERCENT
Forests			
- sustained Yield Units	1,067,000	1,353,000	68%
- Tree Farm Licences	286,000		
Agriculture			
- Irrigated	60,000	157,000*	8%
- Dryland Farming	26,000		
- Arable Potential (below 1800 feet in elevation)	71,000		
Urban			
- Removed from Agriculture		57,000	3%
Lake Surface Areas		104,000	5%
Other		329,000	16%
TOTAL		2,000,000	100%

of

cultivated to elevation 5000 feet is 272000 acres

Land capable
being

Table 3.5 presents a breakdown of existing landuse development in the Okanagan in 1970. Out of approximately 2 million acres in the basin over two-thirds (1.35 million acres) are in productive forest, situated above the 2000 foot elevation. Some 157,000 acres of cultivated, land capable of being

cultivated, lie below an elevation of 1800 feet. Above this elevation climatic conditions severely limit agricultural crop production. Of this arable acreage over 60,000 acres are presently irrigated (Figure 3.5) and an additional 26,000 acres are in dryland cultivation, mainly in the northern end of the watershed. Residential, commercial and industrial sub-divisions occupy some 57,000 acres of land in the valley proper much of which was formerly prime agricultural land.

3.4 AGRICULTURAL RESOURCES

Table 3.6, which shows the distribution of irrigated acreage by crop type and region. Indicates that the Okanagan Valley is one of the most intensively farmed regions in the Province. Mixed farming, based on dairying and irrigated pasture predominates in the North Okanagan, particularly in the Spallumcheen Valley, while tree fruits and other horticultural crops are grown intensively in the regions to the South. The region produces over 90% of all tree fruits grown in British Columbia and about 10% of provincial vegetable production.

TABLE 3.6
IRRIGATED CROP ACREAGES BY REGION. 1971
(Acres)

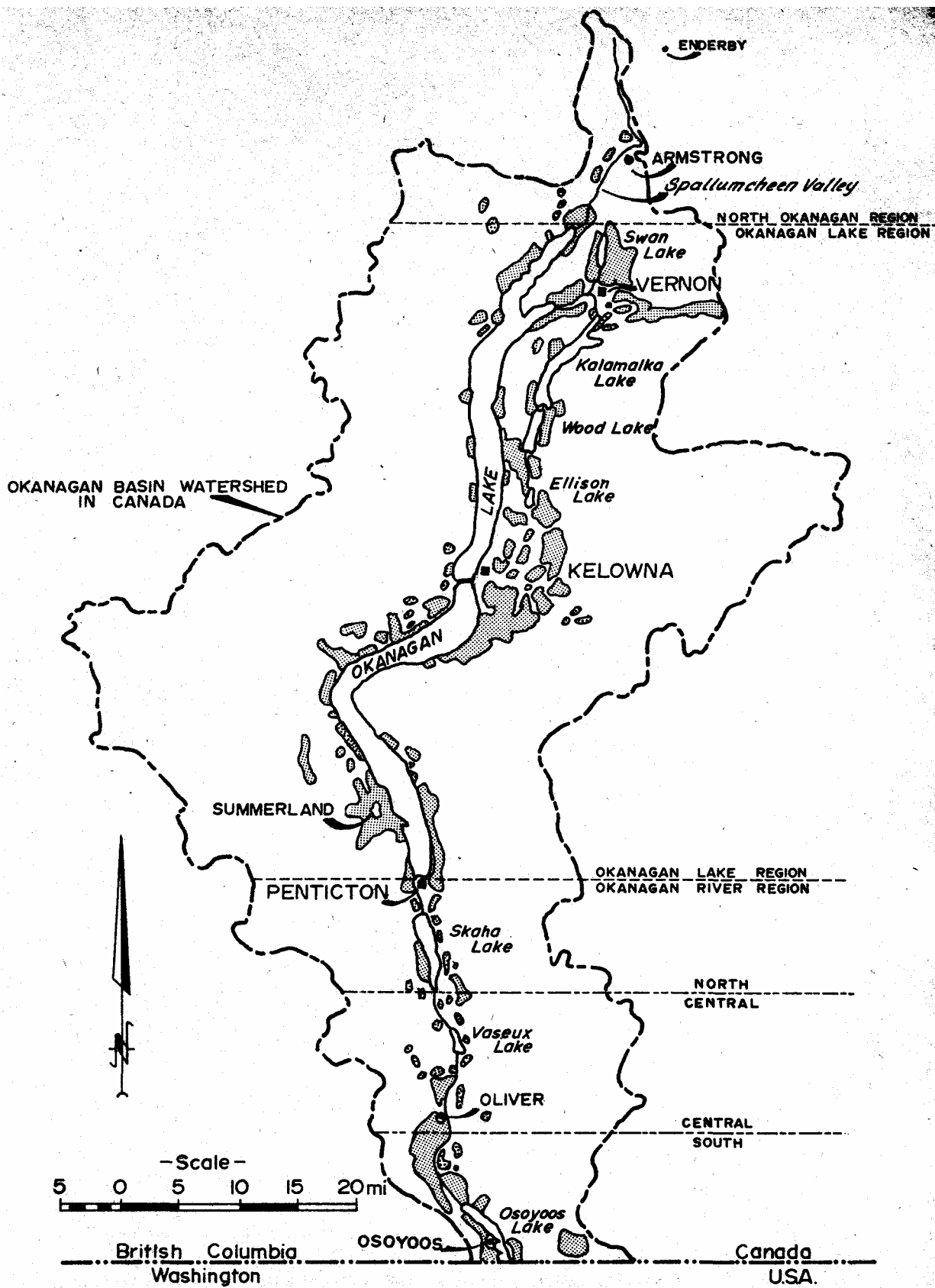
REGION	TREE FRUITS	GRAPES	NURSERY CROPS	VEGETABLES	FIELD CROPS	FORAGE CROPS AND PASTURE	TOTAL
Vernon	2,939	129	84	485	344	11,652	15,633
Kelowna	14,259	1,273	441	289	---	5,885	22,147
Penticton	8,905	109	10	20	---	2,290	11,334
Oliver-Osoyoos	5,716	791	165	412	---	3,872	10,956
Basin Total	31,819	2,302	700	1,206	344	23,699	60,070

SOURCE:

B. C. Tree Fruits Ltd, Statistics Canada, Canada Land Inventory Landuse Maps.

Principal orchard developments lie on gravel and sand benches and alluvial fans adjacent to Okanagan Lake and River. The area between Vernon and Kelowna, with a relatively low expectation of frost-free days specializes in apple production, while to the south of Kelowna, and particularly in the Okanagan River region, milder winters and earlier springs allow for a more diversified production including soft fruits and grapes. Irrigation of tree fruits and other horticultural crops is important on the heavier soils near the major urban centres, and irrigated pasture is becoming increasingly important to support the ranching and dairying enterprises scattered throughout the valley.

Despite the increasing pressures for sub-dividing orchard lands for residential, commercial and industrial development, tree fruit acreages have remained relatively stable over the past decade. Some declines in orchard acreage have occurred near the major urban centres, but these have been largely compensated for by the rapid increase in grape plantings, particularly in the Kelowna and Oliver-Osoyoos regions.



IRRIGATED LAND IN THE OKANAGAN BASIN.

Figure 3.5

Agriculture is one of the major sectors of the Okanagan economy in terms of value of output. Table 3.7 presents the value of production of the major agricultural crops and indicates the dominant position of the tree fruit industry. Apples represent over half of the gross value of tree fruits to the farmer followed by cherries (13%), pears (12%) and peaches (9%) (Table 3.8). Grape production varies considerably from year to year due to winter kills during severe frosts, but in 1970 was valued at about \$1.5 million or about 8% of the value of tree fruits. Grapes have only recently gained importance in the agricultural economy of the basin. Because of increasing trends in per capita wine consumption in the Province and the suitability of the Okanagan soils and climate for grape production, this product has considerable growth potential in the basin.

TABLE 3.7
VALUE OF AGRICULTURAL PRODUCTION¹
IN THE OKANAGAN VALLEY - 1970

ITEM	VALUE OF CROP	PERCENTAGE
Tree Fruits and Grapes	\$31,974,200	79.3
Livestock	2,749,900	6.8
Dairying	1,535,500	3.8
Vegetables	1,241,300	3.1
Field Crops	482,200	1.2
Poultry and Eggs	1,304,000	3.2
Nursery Crops	1,021,000	2.6
TOTAL	\$40,308,000	100.0

1. Values include packing-house charges for handling, processing and transportation.

SOURCE: Statistics Canada, Agricultural Census.

TABLE 3.8
1970 TREE FRUIT AND GRAPE PRODUCTION
FOR THE OKANAGAN VALLEY

FRUIT	TOTAL PRODUCTION (Pounds)	TOTAL VALUE ¹ (Dollars)
Apples	257,700,000	10,690,000
Crabapples	530,000	30,000
Pears	33,300,000	2,180,000
Plums	160,000	18,000
Prunes	7,490,000	570,000
Cherries	12,780,000	2,510,000
Peaches	18,170,000	1,670,000
Apricots	5,500,000	350,000
Grapes ²	17,330,000	1,500,000
TOTAL	352,960,000	19,518,000

1. Figures represent gross values to farmers and do not include packing house charges.
2. Figures estimated from those prepared for Okanagan-Similkameen District SOURCE: Okanagan-Shuswap-Economic Study, April 1971

Production of beef cattle is a very important part of the agricultural economy, the value of livestock production being the second most important category of agricultural production. There are over 850,000 acres of grazing lands within the watershed, much of this in the lower forested areas, while irrigated pasture lands could significantly increase the potential for livestock production. Table 3.9 indicates that the total number of cattle is increasing in the region, a trend that is expected to continue as population and per capita consumption of beef increase.

TABLE 3.9
NUMBER OF CATTLE AND CALVES, OTHER
THAN MILK COWS AND HEIFERS. ONE YEAR AND OVER

CENSUS SUB-DIVISION	1961	1966	1971
3A	25,444	28,332	30,450
3B	16,315	20,741	20,896
TOTAL	41,759	49,073	51,346

SOURCE: Statistics Canada. Agricultural Census Data, 1961-1971.

Under the B. C. Grazing Act, beef cattle are allowed to graze in forested areas of the watershed. Although there is some public concern about the impact of cattle grazing on tributary stream water quality, the number of cattle grazing on Crown Lands has remained relatively constant over the past decade as shown in Table 3.10.

TABLE 3.10
USE OF CROWN RANGE-
O.P.S.Y.U.¹ AND T.F.L.² 9 AND 15

YEAR	CATTLE	ANIMAL UNIT MONTHS ³
1962	11,430	49,380
1969	11,225	48,780
1972	11,270	49,110

1. Okanagan Public Sustained Yield Unit. (O.P.S.Y.U.)
2. Tree Farm Licence. (T.F.L.)
3. One animal unit month is equal to one mature cow on Crown Range for one month.

SOURCE: Grazing Division, Forest Service, Dept. of Lands, Forest and Water Resources

Although agriculture has declined in relative importance in the Okanagan economy over the past decade, it is still a vital component of the economic and social life-style of the basin. Almost 30% (i.e. \$11.6 million) of the total value of agricultural production is spent locally in the Okanagan as shown in Table 3.4, and there are strong linkages between agricultural and manufacturing industries geared to providing materials for farming, processing and marketing of agricultural products. Tourism is greatly enhanced by the beauty of the orchards and the availability of fresh fruit and vegetables in roadside stands.

In addition to these economic and environmental values, farming plays an important social function in the life-styles of many Okanagan residents. Thirty-two per cent of all farms in the three regional districts were under 10 acres and 49% of all farmers earned less than \$2500 in 1971 (Table 3.11). While some of these small farms provide sole-support for their operators, most provide a secondary source of income and are primarily residential units. In fact, 74% of all non-commercial farms (those with sales under \$2500) in 1971 were located in the North and Central Okanagan Regional Districts, which include the more densely settled parts of the basin.

TABLE 3.11
DISTRIBUTION OF FARMS BY SIZE AND
VALUE OF SALES, 1971

SIZE OF FARMS (acres)	NUMBER	PERCENTAGE	VALUE OF SALES	NUMBER	PERCENTAGE
Under 3	331	8.8%	under \$2500	1860	49.5%
3 - 9	871	23.2	\$2500 - 4999	520	13.8
10 - 69	1795	47.7	over \$5000	1379	36.7
70 - 179	378	10.0	TOTAL	3759	100.0
180 - 399	207	5.5			
400 - 759	85	2.3			
760 - 1119	32	0.9			
1120 - 1599	19	0.5			
over 1600	44	1.2			
TOTALS	3762	100.0			

SOURCE:

Statistics Canada. Agriculture Census.

3.5 FORESTRY RESOURCES

Productive forests cover over 1.3 million acres or 68% of the Okanagan watershed. Spruce and balsam comprise half the net volume of mature timber, with lodgepole pine, Douglas fir, Cedar and Hemlock constituting the balance. The management of forests on Crown lands is undertaken by the B.C. Forest Service on a sustained yield basis, i.e. the average annual losses due to alienations, logging, fire, decay and waste must not exceed the annual growth increment. Approximately 300,000 acres of forest land is privately managed within two Tree Farm Licence areas, T.F.L.9 and T.F.L. 15 (Figure 3.1).

The potential allowable annual timber harvest from the Okanagan Public Sustained Yield Unit (O.P.S.Y.U.) in 1970 was 25.4 million cubic feet, but actual harvest was only 10.8 million cubic feet, or 42% of potential. However, as timber harvesting methods become more efficient, it is expected that annual cuts will remove a greater proportion of the potential allowable annual harvest.

Almost the complete timber harvest is processed in saw and plywood mills, more than half in the 13 saw and planing mills and two major plywood mills with capacities exceeding 21 million board feet per shift per year. In response to rising labour and other costs, there has been a restructuring of the wood processing sector towards large and more efficient production units, with a parallel decline in the number of small "bush" mills. In addition, there has been some recent diversification in wood processing with the opening of a \$4.5 million corrugated container plant in Kelowna in 1970. This industry serves the local fruit and vegetable packers as well as the distillery at Winfield and various local wineries.

3.6 MINERAL RESOURCES

The Okanagan Basin lies within a larger region of Southern British Columbia which has high mineral potential. Copper and molybdenum are considered the most important of the mineral deposits in the Okanagan, centered at the Brenda Mine near Peachland. The mine, opened in 1970, has an estimated 177 million tons of ore, analyzing 0.15% copper and 0.049% molybdenum, which at current extraction rates should guarantee production for the next 20 years. It is expected that small mines in the region will continue to extract a small amount of other ores including lead, zinc, gold and silver, but rising extraction costs will gradually close most of these operations in the near future.

3.7 TOURISM

The tourist industry is now the third most important growth industry in the Okanagan behind manufacturing and agriculture. Its recent rapid growth is mainly due to the development of three major Provincial highways which permit easy access to the Okanagan from the urban centres in the Lower Mainland, Alberta and Washington State. The basin is extremely well endowed with an excellent climate (over 2000 hours of sunshine annually), and high quality summer and winter outdoor recreation facilities including opportunities for swimming, boating, fishing, skiing and hunting.

Next to good transportation, accommodation is the most important requisite for the tourist industry. With less than 6% of the Provincial population, the Okanagan supports almost 25% of the total Provincial units for tourist accommodation. In 1971, there were 8,983 units of approved accommodation in the basin, almost half of these being camping units and over 43% motel units. Although

there has been a rapid increase in accommodation units, there has been a decline in the number of establishments, following a trend towards the development of large and more efficient operations.

The total number of visitors (defined as people who reside outside the Okanagan) to the Okanagan in 1970 is presented in Table 3.12. Almost half a million or 75% of all visitors come to the basin on holiday and 87% of these holiday visitors enjoy their stays during the four summer months of June to September inclusive. Recent development of high quality convention and skiing facilities has begun to provide a more balanced year round flow of visitors.

TABLE 3.12
NUMBERS OF VISITORS TO THE OKANAGAN IN 1970

TYPE OF VISITOR	SUMMER ¹	OFF-SEASON	TOTAL
Holiday	485,400	71,800	557,200
Business	39,000	78,000	117,000
Convention	7,800	24,200	32,000
Sub-Total	532,200	174,000	706,200
Day Trips	116,800	38,200	155,000
TOTAL	649,000	212,200	861,200

¹ June to September inclusive.

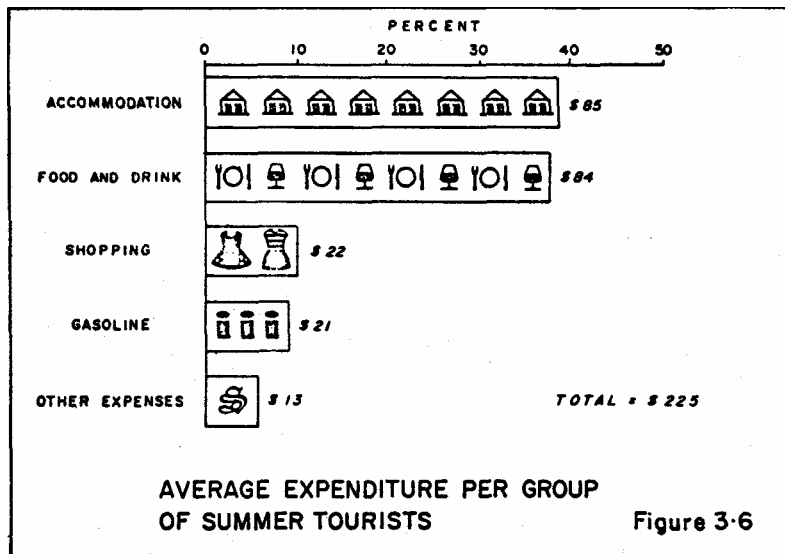
Based on surveys of a sample of business operations and Okanagan households, approximately 31% of summer and 18% of off-season visitors stay overnight in non-commercial accommodation, that is with friends and relatives. Of those staying at commercial facilities, about 45% stayed at motels, 45% in campsites and 10% in hotels. The Penticton region was the major tourist area, receiving 45% of all commercial summer holiday visitors and 75% of the basin's convention visitors. The Kelowna and Vernon regions attracted approximately 20% of visitors staying at commercial accommodation while the Oliver-Osoyoos region attracted 13% of the Okanagan total.

A survey of summer holiday visitors in 1970 indicated that an average group consisted of 4.5 persons and stayed for 6.4 days in the Okanagan. Based on these data, summer holiday visitors spent over 3.1 million visitor days in the basin in 1970 while business, convention and winter holiday visitors spent an additional 600,000 visitor days for a total of 3.7 million visitor-days in 1970 (Table 3.13).

TABLE 3.13
NUMBER OF VISITOR-DAYS IN THE OKANAGAN IN 1970

VISITOR TYPES	SUMMER	OFF-SEASON	TOTAL
Holiday	3,111,400	229,800	3,341,200
Business	78,000	156,000	234,000
Convention	32,400	120,000	152,400
TOTALS	3,221,800	505,800	3,727,600

Visitors spent over \$16 million in the Okanagan in 1970, \$11 million being spent by summer holiday visitors and over \$3 million by convention visitors. The convention visitor spending has increased by 67% over 1967 totals, placing the Okanagan second only to Vancouver among British Columbia convention centres. Three quarters of total expenditures by summer tourists were spent on accommodation, food and beverages and about 10% on general shopping purposes (Figure 3.6). Over \$1 million of the money spent by summer holiday visitors was derived from the sales of tree fruits, grapes and vegetables. Indicating an important linkage between the tourist and agricultural sectors of the Okanagan economy.



3.8 INDIAN RESERVES

Indian reserve lands include some 100,000 acres (See Figure 3.1) of which 13,600 acres lie below 1800 feet with considerable agricultural and recreational

potential (Table 3.14). Much of these valuable lands are presently undeveloped, though recently the Indians have leased acreages for fodder crops and grapes' (near Oliver) and for summer cottage development (North Arm of Okanagan Lake). In the late 1960's there have been increasing attempts by government agencies and private companies to encourage the Indians to make better use of their prime resource and this led to extensive development plans for residential and recreational development in reserve lands on the east side of Osoyoos Lake.

TABLE 3.14.
IRRIGATED AND POTENTIAL IRRIGABLE LAND'
OKANAGAN BASIN INDIAN RESERVES²

LOCATION IN BASIN	NAME OF RESERVE	IRRIGATED OR POTENTIALLY IRRIGABLE LAND		
		IRRIGATED ACRES	POTENTIALLY IRRIGABLE ACRES	TOTAL ACRES
North Okanagan Lake Basin	Okanagan No. 1	400	5135	5535
	Okanagan No. 3	100	25	125
Central Okanagan Lake Basin	Winfield No. 1	0	403	403
	Tisinstekeptum No. 9 & 10	181	1559	1740
South Okanagan Lake Basin	Penticton No. 1 & 3	474	3226	3700
Okanagan River	Osoyoos No. 1	842	1307	2149
	TOTALS	1997	11655	13652

NOTES:

(1) Potential Irrigable Land includes all Canada Land Inventory class 1 to 4 land within 500 feet in vertical elevation of potential water source.

(2) Indian Reserves shown in Figure 3.1.