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LAND USE CHANGE IN THE ORCHARD AREAS
OF THE OKANAGAN VALLEY OF BRITISH
COLUMBIA. A CASE STUDY

by

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(B.Sc.F., University of New Brunswick, 1971)

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE
IN BUSINESS ADMINISTRATION

in the Faculty
of
COMMERCE AND BUSINESS ADMINISTRATION

We accept this thesis as conforming to the
required standard

THE UNIVERSITY OF BRITISH COLUMBIA

September, 1974

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ABSTRACT

The renewed interest in the preservation of agricultural land in British Columbia, brought about by the agricultural land freeze in December 1972 and the passage of Bill 42, the Land Commission Act in April 1973; established an interesting environment in which to analyze land use change in the Okanagan Valley.

The loss of commercial orchard land in the Penticton area to residential and recreational uses had caused the Planning Director of the Okanagan-Similkameen Regional District to require that all major development must be made under a land use contract. This relatively new planning tool had been used in an orchard area near Penticton. This thesis is primarily a micro-economic analysis of the land use and changes to that use in this area.

It is a case study which discusses the reasons behind the desire to change the land use, the effects of the marketing organization of the tree-fruit industry and governmental influences which affect the industry as a whole.

The International problems affecting the tree-fruit industry are also analyzed as is their effect on the individual orchardist.

The contention of this study is that although Bill

42 may have attempted to correct one of the symptoms of an ailing industry, more effort will have to be extended to eliminate the causes.

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ACKNOWLEDGMENT

I would like to express my appreciation to Professor W. F. Smith of the University of California at Berkeley for his encouragement and guidance while I researched this thesis, and to Professor S. W. Hamilton for the direction and time spent in correspondence while the draft was being prepared.

I am indebted to personnel of the New Brunswick Department of Natural Resources; in particular to Mrs. W. B. Price for typing the manuscript, to Mr. W. F. H. Carr and Mr. C. A. Cameron for their cartographic work and to Mr. D. A. Wolstenholme, Director of Forests Branch for his general support and interest.

LAND USE CHANGE IN THE ORCHARD AREAS OF
THE OKANAGAN VALLEY OF BRITISH
COLUMBIA. A CASE STUDY

"Well, in our country," said Alice, still panting a little, "you'd generally get to somewhere else - if you ran very fast for a long time as we've been doing."

"A slow sort of country!" said the Queen. "Now here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that."¹

The plight of a great number of British Columbia orchardists is similar to the situation which the Queen describes. 'It takes all the running' they can do to remain in the same relative economic position as the year before. The economic viability of the orchard land is not within the orchardists' control because of such factors as climatic conditions, market demands, foreign and non-local domestic production, fruit quality and availability and quality of farm labor. The orchardist is at the mercy of these and other forces which determine his net farm income from his orchard operations.

Such is the situation, where the average age of

¹Lewis Carroll, "Through the Looking Glass and What Alice Found There", Chapter 2, Macmillan, 1871, cited in THE ANNOTATED ALICE, Alice's Adventures in Wonderland and Through the Looking Glass by Lewis Carroll, Introduction and Notes by Martin Gardner Clarkson N. Potter, Inc./Publisher, New York, 1960, page 210.

a sample of Okanagan orchardists was 48 years² and the annual average labor income to the operator was \$-620 in 1970.³ The orchard business is in trouble in the Okanagan Valley, and if the orchardist were a hard-nosed business man, he would see the hopelessness of his plight, sell his land and invest his money and labor in some easier profession. However, after December 21, 1972 he could no longer sell his land for subdivision purposes⁴, and the demand for orchard land in the Okanagan Valley is poor, with the 1969 crop disaster still vivid in the memory of most orchardists. The orchardist is left little or no alternative but to continue to "run at least twice as fast as that" as the Queen recommends.

The changing economic structure of the Okanagan Valley magnifies the need for control of land use change but should it be to the extent of excluding agricultural land from development in the Valley? To better understand the

²Caralee Arendt, Costs and Returns on Fruit Farms in the Okanagan Valley of B.C., 1969 and 1970, Economics Branch, Agriculture Canada, Vancouver, B.C. Economics Branch Publication No. 73/1, Report Completed in December 1972, Amended June 1973, page 3.

³Ibid., p. 6.

⁴Order-in-Council 4483, December 21, 1973; pursuant to the Environment and Land Use Act, cited in "B.C. Gazette", Part II, Regulation 4 of 1973, January 11, 1973; and Order-in-Council 157, cited in "B.C. Gazette", February 8, 1973; Queen's Printer, Parliament Buildings, Victoria, B.C. - under which Orders-in-Council, all subdivision of farmland was prohibited. The Land Commission Act (Bill 42), passed April 16, 1973 after prolonged public debate functionally administered subdivision of farmland.

pressures on land use, the area of the study will be located, and characterized such that the seriousness of the problem can be brought into proper perspective.

The Setting

Physical Description

The Okanagan Valley is the common name for the Okanagan Trench which is located in the south central interior of British Columbia, and is a deep wide valley which dissects the province's Central Interior Plateau. The general area of this study extends from Osoyoos at the International Boundary with Washington State in the south, to Salmon Arm in the North (See Figure 1, THE OKANAGAN VALLEY OF BRITISH COLUMBIA, Pg. 4). The plateau is bounded on the east and southwest by high mountain chains which range from upland hills to gently sloping terraces along the valley sides. A chain of lakes and rivers runs down the centre of the Okanagan Valley. In the north the Shuswap Lake forms the valley's northern boundary. From here the Shuswap River flows southward into the valley to join with Okanagan Lake. The lake divides the valley for approximately sixty-five miles, until it terminates at Penticton. The Okanagan River then joins this lake with Skaha, Vaseux and Osoyoos Lakes before flowing into Washington State. The valley varies in width from three miles in the southern mountainous areas to twelve miles in the north..

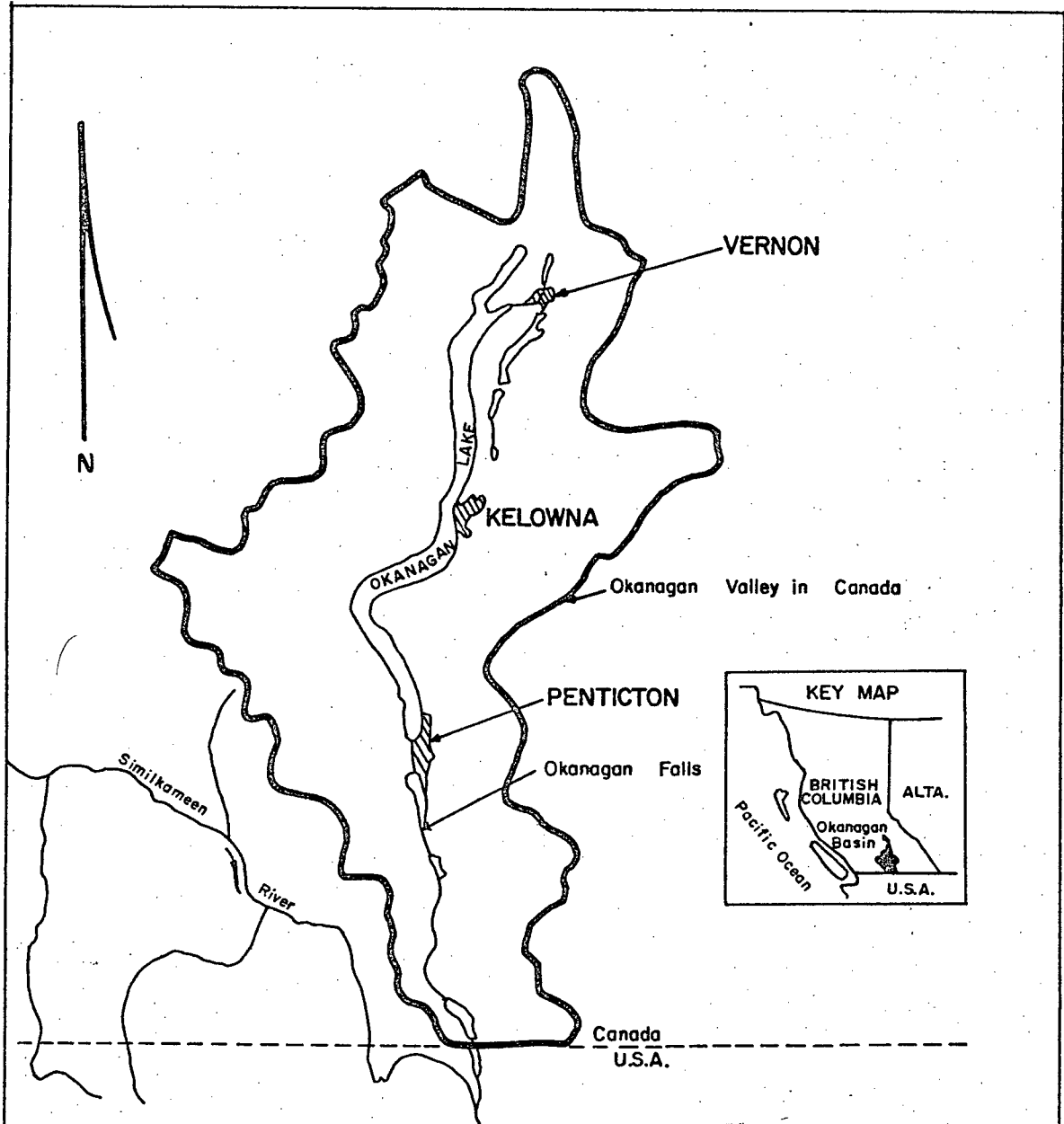


Figure 1

THE OKANAGAN VALLEY OF BRITISH COLUMBIA

SOURCE: PRELIMINARY REPORT NO. A, "List of Okanagan Basin Study Report Publications," Study Committee, CANADA, BRITISH COLUMBIA - OKANAGAN BASIN AGREEMENT, Penticton, B.C., 1972, back cover.

Along the main waterway of the valley are the communities of Kelowna and Penticton. They serve as major service centres for the central and southern portions of the valley. Vernon is located a few miles east of the Okanagan Lake, in the north, between Swan and Kalamalka Lakes. It is the major service centre for the North Okanagan Valley.⁵

The valley walls rise steeply to about 3,500 to 4,000 feet above the scenic lakes. The Okanagan is generally noted for its hot dry summers. This, coupled with the obvious availability of water resources make the Valley rich in recreation and aesthetic resources. The residents themselves place a high value on water-based recreational activities in the Okanagan Basin, where 92 percent of the residents could go swimming and 74 percent boating within 30 minutes of their homes.⁶

The specific location of the case study is on the west side of Skaha Lake, approximately six miles from the central business district of Penticton. Before the 1958 construction of the Lakeshore Road, the inhabitants of the Ranch in the case study travelled through Okanagan Falls and

⁵British Columbia Land Service, Department of Lands, Forests and Water Resources, "The Okanagan Area Bulletin, 1968", Victoria, B.C., p. 2.

⁶Study Committee, Canada-British Columbia, Okanagan Basin Agreement, "Recreation and Aesthetic Resources", Preliminary Study Data - Bulletin No. 5, Penticton, B.C., July 15, 1972, P. 2. (Based on Survey of 384 Okanagan households).

around the west side of Skaha Lake to reach the city of Penticton (See Figure 2, "LOCATION OF THE CASE STUDY AREA IN THE OKANAGAN VALLEY", Pg. 7).

The terrain of the case study area is spectacular with elevations varying between 1110 feet at Skaha Lake and 1800 feet at the top of the hills. Areas not under the tree-fruit cultivation are typical of the Montane Forest Region of British Columbia, with open-grown, cluster stands of Ponderosa Pine (*Pinus ponderosa* Laws.)⁷ in a parklike setting. Appendix A is a stereoscopic pair of aerial photographs of the case study area. These photographs illustrate the typical terrain encountered in the Skaha Lake area.⁸

The Economic Status of the Okanagan Valley

The population of the Okanagan Basin increased by 38,500 between the years 1961 and 1971, to approximately 113,500. This was an increase of 51.3% as compared to a population growth of 34.1% for British Columbia as a whole. The growth, however did not take place at equal rates throughout the valley. The population growth in Kelowna was 83.3% between 1961 and 1971 reaching 46,700 in that year.

⁷R. C. Hosie, Native Trees of Canada, Canadian Forestry Service, Department of the Environment, Information Canada, Ottawa, Seventh Edition, 1973, p. 44.

⁸B. C. Lands Service; Map Production Division. Surveys and Mapping Branch, Victoria, B.C., Air photographs Nos. BC4143-094 and BC4143-095, 1963, flight line.

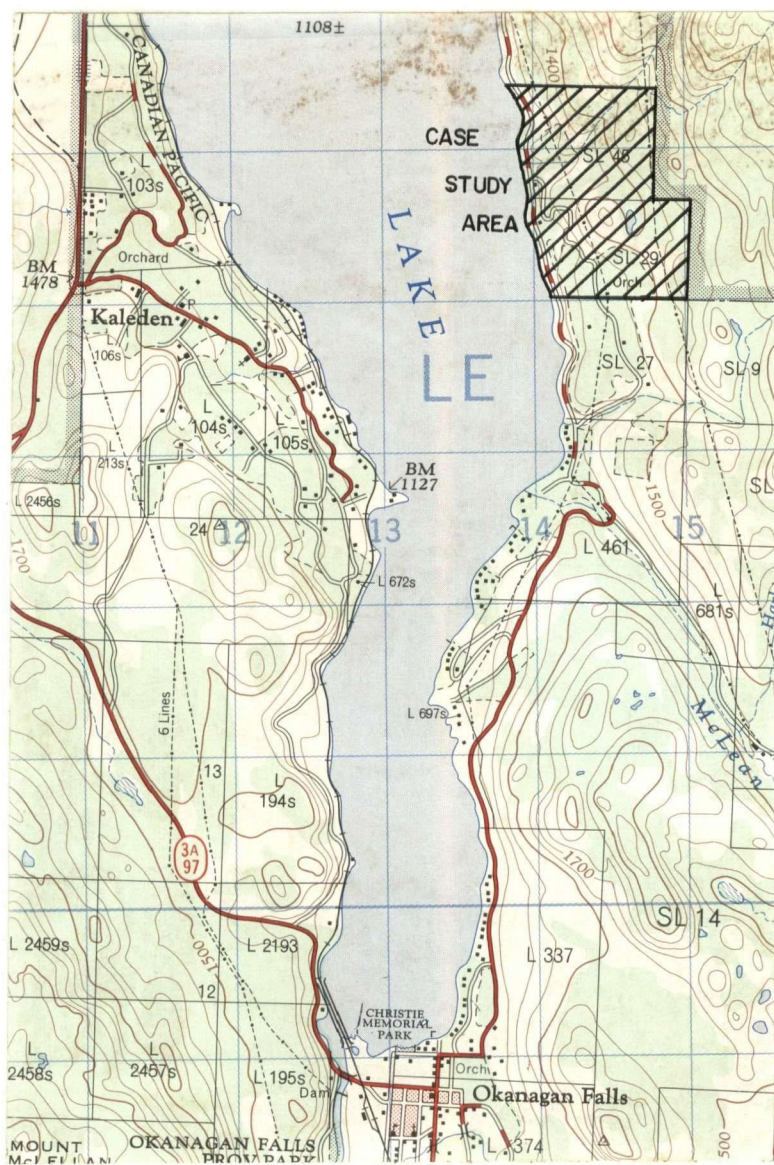


Figure 2

LOCATION OF THE CASE STUDY
AREA IN THE OKANAGAN VALLEY

SOURCE : Department of Energy , Mines ,
and Resources. Map , Penticton 82 E/5E
Edition 1 , 1968 . Scale 1:50,000.

Penticton area by contrast grew at a more conservative rate of 32.3%, due largely to expansion in tourism, with some manufacturing and service trades.⁹ Kelowna's growth, by contrast, was due largely to expansion of the Winfield distillery, local wineries, mobile homes and carpet manufacturing.¹⁰

Data from an economic growth study carried out under the Okanagan Basin Agreement gives insight into the changes which have taken place in the Okanagan Valley between 1961 and 1971. The Federal Government's Regional Incentives Program was primarily responsible for the increase in the non-resource based employment of 1,440 jobs in the 10 year period, a 200% increase in that time. Tourism showed a healthy 92.9% increase from 620 to 1,230 jobs over the same period. The region as a whole had a net increase in employment of 9,860 jobs or 53.0% during the survey period.¹¹ However agriculture, primarily the tree fruit industry, had a net employment decrease of 250 jobs, which the study attributed to a number of factors. These include the loss of comparative advantage in export markets, subdivision of

⁹ Study Committee, Canada - British Columbia Okanagan Basin Agreement, "Economic Growth in the Okanagan Basin to 1980", Preliminary Study Data - Bulletin No. 9, Penticton, B.C. July 15, 1972, p. 1.

¹⁰ Ibid. p. 3.

¹¹ Ibid. p. 2.

agricultural land for residential and industrial purposes and the increased productivity per worker.¹² The decline in agricultural employment was probably also due to the fact that the retiring orchardists' land was converted to urban uses rather than being taken over by new orchardists entering the industry.

This change in relative importance of tourism in the Okanagan Basin was influenced no doubt by the improved access from Alberta upon completion of the Roger's Pass highway in the early 1960's. The projection for the tourism sector to increase by 770 jobs or 62.9% by 1980 is an increase at a slower pace than from 1961 to 1971. This reflects a leveling off of the influence of the highway and slower growth in the demand for recreational activities from British Columbia, Alberta and Washington State.¹³

The total estimated expenditures by the 760,200 tourists¹⁴ to the Okanagan in 1970 was between 25 to 30 million dollars.¹⁵

The region is expected to have employment growth

¹²Ibid. Table 1, p. 2.

¹³Ibid.

¹⁴Ibid. Figure 3, p. 4.

¹⁵Study Committee, Canada - British Columbia, Okanagan Basin Agreement, "Recreation and Aesthetic Resources", op. cit., p. 2.

of 47.2% by 1980 or 13,430 new jobs.¹⁶ Undoubtedly these projected increases in employment will involve expansions of existing industries and the emergence of new ones, all requiring additional land. The most obvious source of this required land would have been the fruit orchards prior to the land freeze in December of 1972.

At the time of the Okanagan Basin Economic Growth Study, it was predicted that 5,270 acres of irrigated acreage would be lost to other uses by 1980. Of this 5,270 acres, approximately 800 acres of irrigated tree fruit orchards would be lost in the Penticton area.¹⁷ Although the farm land freeze will likely prevent much of this acreage from being lost to development, the pressure for change will still be there, provided the economic predictions are reasonably accurate. This changing economic environment along with the dissatisfaction of many orchardists with their plight, provides an unusual situation in which to analyze the case study of land use change near Penticton.

¹⁶Study Committee, Canada - British Columbia, Okanagan Basin Agreement, "Economic Growth in the Okanagan Basin to 1980", op. cit., Table 1, p. 2.

¹⁷Ibid. Figure 4, p. 4.

CHAPTER II

THE TUMBLEMOON RANCH CASE STUDY

The problem of orchard subdivision was first brought to the attention of Professor W. F. Smith by Mr. Harold Thomson, Planning Director of the Okanagan - Similkameen Regional District, in the spring of 1973. Mr. Thomson's primary concern was that orchard land was being subdivided more rapidly than the market for fully-serviced lots dictated. This demonstrated the liquidity problems of the money-losing orchardists. He was also concerned that the excessive subdivision was in the form of recreation lots, which would eventually become permanent residential lots without the required infra-structure necessary in an urban community. The municipality or the regional district would then become responsible for its provision at a later date.

The author and Professor Smith made a trip to Penticton in early June to see the concerned Planning Director. At the one hour meeting Mr. Thomson discussed the concept of a land use contract¹⁸ and the use of it in the Okanagan - Similkameen Regional District. The land use contract was an attempt to regulate subdivisions to ensure that all the necessary infra-structure was provided by the developer.

¹⁸ Municipal Act, R.S.B.C. 1960, Chapter 225, Section 702A, with due regard for Section 702(2) and Section 702A(1).

Two such contracts had been approved by the Regional District at the time of the meeting, and the Planning Director suggested that one of the holders, an orchardist, might talk with us on the subject. Mr. Thomson contacted the orchardist who agreed to meet us that same afternoon. The contact with Tumblemoon Ranch had been made.

Neither Professor Smith nor the author anticipated that this case of orchard subdivision would become the subject of intense investigation, especially after our afternoon meeting with the owner and operator of Tumblemoon Ranch, who was understandably skeptical of our motives. The farmland freeze and the newly formed Land Commission,¹⁹ were still frequent news topics even in June.

The orchardist was a refreshing man of sixty-three, although years of orcharding in the Okanagan sunshine made him look only 50. He had grown up in England and came to Canada in 1934. He then took a two year diploma course in agriculture at MacDonald College of McGill University in Ste. Anne de Bellevue, Quebec. His agricultural background led him to the Okanagan Valley, where he became a prominent member of the tree fruit growers fraternity.²⁰

The orchardist spoke skilfully about the general

¹⁹Marjorie Nichols, "Richmond lawyer appointed land commission chairman", The Vancouver Sun, (May 17, 1973), p. 1.

²⁰Interviews with orchardist - owner and operator of Tumblemoon Ranch, June 17 to June 29, 1973; and July 27 to August 1, 1973.

problems with the tree fruit industry, the economic status of that industry, his operation, and vaguely about his past subdivisions. A glimpse at his proposed subdivision plan at the end of our informal chat was the first indication that specific information concerning this on-going project might be obtained. The duo then returned to Vancouver hopeful about the chances of developing the Tumblemoon Ranch²¹ case into a full scale investigation of an orchard subdivision under a land use contract.

The author returned on June 8 for a brief talk with the orchardist whereupon it was agreed then that another visit a week later should last two weeks or more, so that any study, if there was one, would be a reflection on a way of life as well as on a farm business.

After the second day of this two week stretch the orchardist suggested that the author should only work the orchards in the morning and evening, leaving the hot afternoons for research in the ranch office.

It was through the orchardist's kindness and co-operation, in allowing detailed analysis of personal papers and records, that this case study has economic validity. Discussions explaining accounting methods in the orchardist's

²¹The local name for the Ranch is used, rather than the orchardist's name or legal description of the property, since the subdivision is presently being excavated; anonymity was promised throughout - such that real data could be used.

exact and detailed records, which pre-dated Tumblemoon Ranch by a decade, took up many hours of his scarce leisure time. The completeness of the data base of this study far exceeded initial expectations.

The Economic History of Tumblemoon Ranch, 1958-1972

The orchardist bought Tumblemoon Ranch in 1946, in partnership with his brother. By 1948, his brother had decided that orcharding was not for him and left the business venture.

The initial purchase price was \$50,000 for the 322 acre ranch. However, \$25,000 was considered the cost for orcharding equipment and improvements, which included \$7,000 for the ranch house and sheds. The purchase price of the ranch, land and improvements was, therefore, \$32,000 or \$99.38/acre.²²

The ranch remained as a whole unit until 1964, when a subdivision of five lots was carried out. A subsequent subdivision and an extension to it occurred in 1971 encompassing six lots. Table 1 shows the total area sold from the ranch by 1972. These were the only land transactions involving Tumblemoon Ranch prior to 1972. However, records from 1946 to 1958 included another orchard operation

²²Since the records had no data referring to the proportion of ranch under cultivation in 1948, the 1973 orchard size is used throughout. Therefore, purchase price/acre = \$32,000/322 acres = \$99.38/acre.

Table 1

LAND USE AND LAND USE CHANGES

TUMBLEMOON RANCH, 1946-1973

				<u>Acres</u>
Total Ranch Size (1946)				322.00
	<u>1964</u>	<u>1971</u>	<u>1971</u>	
	<u>Subdivision</u>	<u>Subdivision</u>	<u>Extension</u>	
Lots (No.)	5	5	1	
Acres in lots	17.66	3.58	3.45	
Acres in roads	1.40 ^a	4.27	1.64	
Total Acres	19.06	7.85	5.09	<u>32.00^b</u>
Total Ranch Size (1973)				<u>290.00</u>
	<u>1973 ORCHARD OPERATION</u>			
Orchard Use:				
Apples:	bearing	22.70		
	non-bearing		10.70	<u>33.40</u>
Apricots:	bearing	4.20		
	non-bearing		---	<u>4.20</u>
Pears:	bearing	9.60		
	non-bearing		---	<u>9.60</u>
Total Orchard Use				47.20
Access Roads to Orchard				2.54
Total Non-orchard (Ponderosa Pine, grass)				238.35
Reservoir				<u>1.91</u>
Total Acres belonging to Orchardist				290.00

^aRoads in acres of 1964 subdivision only 1.40 acres, since 3 of 5 lots were serviced from Lakeside Rd.

^bAcreage data derived from the survey plans of each subdivision from Land Registry Office, Kamloops, B.C.

SOURCE: Tumblemoon Ranch Records

on the "Naramata Bench"²³, where the orchardist first settled in 1936. This property was sold in early 1958, whereupon Tumblemoon Ranch became the sole agricultural enterprise for the operator. The reasons behind the sale were quite evident; the management of two seasonally labor intensive orchard operations in an era of a diminishing supply of quality labor was a mammoth task. Therefore, this case study will deal primarily with the operating years of 1958-1972, when Tumblemoon Ranch stood alone economically.

The Orchard Operations, 1958-1972

"An orchard is an agricultural enterprise. Its primary objective is profit through the production and sale of fruit. In this sense an orchard is more than just land, trees and fruit or a way of life. It is a business which must balance the debits with the credits."²⁴

Accepting Dr. Tukey's statement as valid for the Okanagan area, the analysis of the Tumblemoon Ranch operations became profitability oriented. The data for this section came primarily from the personal records of the orchardist.

The operator of Tumblemoon Ranch, like most tree-fruit growers in the Okanagan Valley, ran a one-man

²³The "Naramata Bench" is the local name for a low bench approximately 100 feet above the level of Okanagan Lake on its east side. The bench follows the shore from the Penticton city limits to Naramata (about 7 miles).

²⁴R. B. Tukey, "Implications of Economics on Orchard Management", Proceedings of the First BCFGA Horticultural Conference, The 1969 APPLE FORUM, (November 24, 25, 1969), P. 33.

operation, hiring labor during harvesting and thinning operations while he carried out most of the other duties independently. The bulk of the crop was sold to a co-operative packing house which marketed it via the British Columbia Tree Fruits Ltd. (B.C. Tree Fruits). This central selling agency was authorized by the British Columbia Fruit Board, pursuant to the Natural Products Marketing (British Columbia) Act,²⁵ and the Agricultural Products Market Act of Canada.²⁶ The returns to the orchardist are proportional to the overall market price of the grade of fruit which he supplies and the cull rates applicable to his crop.

Discussion of the marketing and pricing system of B. C. Tree Fruits Ltd. will be dealt with later. At this point in the study the aim is to factually relate the owner-operator's financial experience since 1958.

Appendix B, "TUMBLEMOON RANCH, INCOME STATEMENTS, 1958 to 1972" provides a comprehensive account of the profitability of the ranch as a business enterprise. Figure 3, "TUMBLEMOON RANCH CROP RETURNS AND NET ORCHARD INCOME, 1958 to 1972" provides a graphical presentation of some of the data from Appendix B, and vividly shows that, as a business, the orchard operation was an economic disaster.

²⁵Natural Products Marketing (British Columbia) Act, R.S.B.C. 1948, Chapter 200, s.1; 1960 Chapter 263, s.1.

²⁶Agricultural Products Marketing Act, R. S. 1970, Chapter A-7, s.2, c.1 (1st. Supp.), s.1.

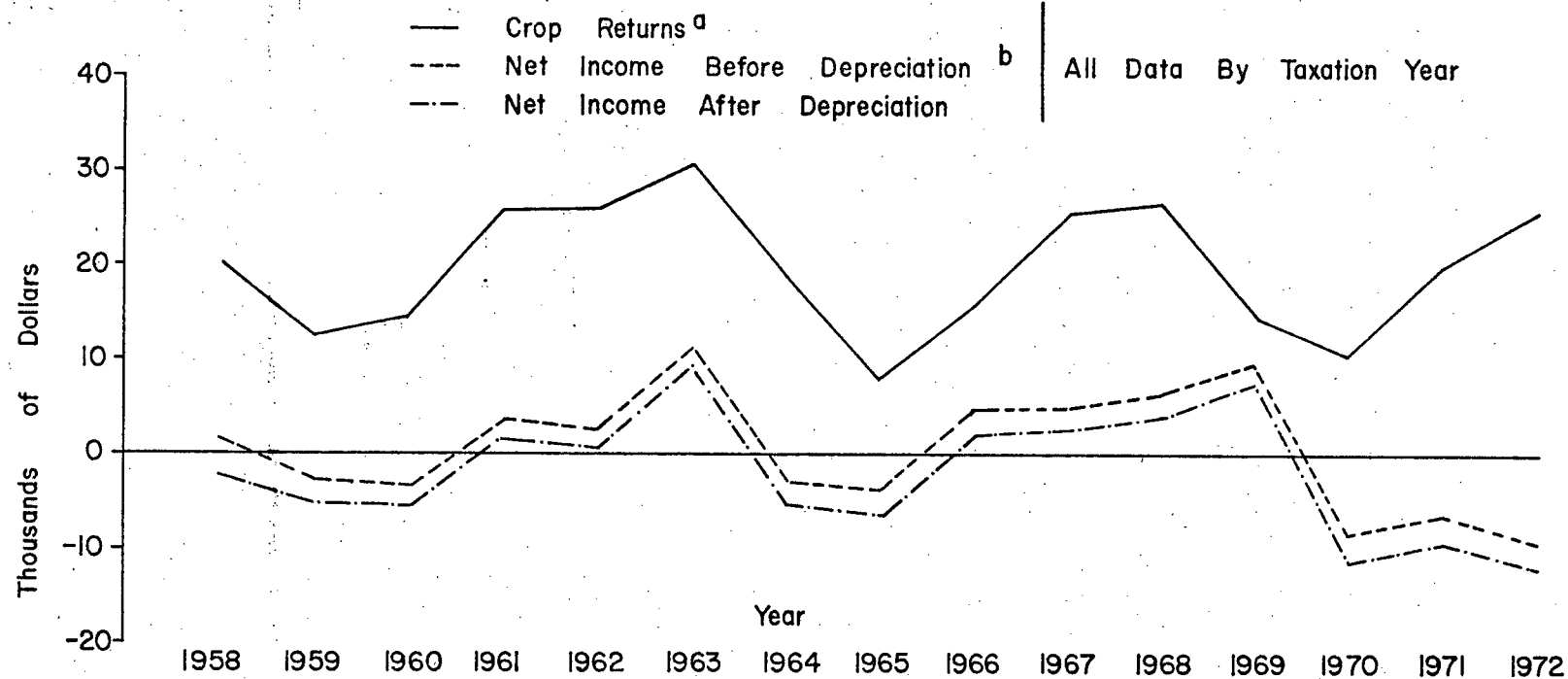


Figure 3

TUMBLEMOON RANCH CROP RETURNS AND NET ORCHARD
 INCOME, 1958 TO 1972

^a Crop Returns Exclude Small Occasional Farm Income, But Net Income Does
 Include Them, See Table 3

^b Not Including Operators, Labor or Investment Costs

Since an orchard represents a long term investment, an appraisal of this economic situation must necessarily have a long-run emphasis. The nature and occurrence of annual costs also affect the profitability of the commercial tree-fruit orchard more severely than other agricultural and resource-based industries. It is therefore important that costs be analyzed in a manner suitable for appreciation of both the long and the short-run aspects of the business.

Figure 3 shows net income both before and after depreciation expenses. Prior to analysis of this figure, the method of determining the depreciation expense should be explained. Table 2, "DEPRECIATION SCHEDULE - 1972", explains the derivation of this annual cost. As well, it clarifies the nature of capital expenditures on a tree-fruit farm. The rates applied in Table 2 were those allowed by the straight-line depreciation method approved under the Income Tax Act.²⁷ The depreciation expenses for the complete study period were determined from the income tax returns of the orchardist-operator.

In conjunction with Figure 3, a series of tables (Tables 3 through 6) have been prepared to show what has occurred over the 15 year study period. These tables serve to supplement Figure 3 and give total costs and revenues of the orchard operation. However, they are not a substitute

²⁷Income Tax Act, R. S. 1952. Chapter 148 as amended is repealed except Part IV; 1970-71-72, Chapter 63, s.1.

Table 2

DEPRECIATION SCHEDULE - 1972

<u>Item</u>	<u>Year Purchased</u> Yr.	<u>Cost</u> \$	<u>Rate</u> %	<u>Depreciation</u> \$
Loading Platform	1962	61.66	5	3.08
Fence	1963	2,451.21	5	122.56
Sprayer	1963	2,675.00	10	267.50
Irrigation Equipment	1963	1,225.60	10	122.56
Culti-hoe	1964	789.00	10	78.90
Miscellaneous Equipment	1964	204.64	10	20.46
Irrigation Equipment	1965	165.15	10	16.51
Rotovator	1965	775.00	10	77.50
Sprinkler	1967	640.84	10	64.08
Sundry	1967	129.50	10	12.95
Power Pruning Equipment	1968	1,010.12	10	101.01
Sprinkler	1968	207.76	10	20.78
Tractor	1969	4,850.00	15	727.50
Mower	1969	740.00	10	74.00
Tiller	1969	163.00	10	16.30
Pumphouse	1970	136.74	5	6.84
Pump	1970	6,159.00	10	615.90
Irrigation Equipment	1970	3,759.88	10	375.99
Chain Saw	1970	152.01	10	15.20
Honda "Trail-Bike"	1971	470.40	15	70.63
Total				\$2,810.25

SOURCE: Orchardist's 1972 Income Tax Return and
Tumblemoon Ranch Records.

for the detailed annual breakdown of costs and income in Appendix B.

Table 3, "TOTAL INCOME BY CROP YEAR COMPARED WITH INCOME BY TAXATION YEAR", shows the magnitude of "other ranch income" which was not plotted on Figure 3. Except for 1958, 1966 and 1971 when the orchardist was given government crop assistance or apple subsidies, these sources of revenue were very small relative to fruit sales. The data in Figure 3 is all based on the taxation year, the year ending December 31, since the only expense information available was for that period of time. However, column 1 of Table 3 presents the annual crop sales data based on the crop year. A crop year is defined as the year in which the crop is harvested. Examination of columns 1 and 2 show that there is a substantial difference in the revenue of fruit sales, depending on whether the crop year or taxation year is used.

Figure 4, "RETURNS - CROP YEAR COMPARED WITH TAXATION YEAR", shows the more moderate fluctuations in revenues when calculated on the basis of the taxation year. The fluctuations in fruit sales by crop year can be seen to vary between \$4,865.86 in 1965 to a high of \$31,956.20 in 1962. However, according to the taxation year data, 1965 fruit sales amounted to \$8,989.08 and 1962 netted \$25,777.56. The marketing system causes the returns of one crop year to be spread out over the last two months of that year and the first six to eight months of the following year. Crop rebates, receipts which adjust the orchardist's crop value

Table 3

TOTAL INCOME BY CROP YEAR

COMPARED WITH INCOME BY TAXATION YEAR

	(1) Fruit Sales Crop Year ^a \$	(2) Fruit Sales Taxation Year \$	(3) Other Ranch Income Taxation Year \$	(4) Total Ranch Income Taxation Year \$
1958	13,871.26	20,146.30	3,143.05	23,289.35
1959	11,645.96	12,718.66	306.53	13,025.19
1960	23,363.98	14,168.47	270.94	14,439.41
1961	23,853.58	25,723.01	58.00	25,781.01
1962	31,956.20	25,777.56	114.00	25,891.56
1963	20,819.29	30,226.69	100.00	30,326.69
1964	18,320.44	18,644.11	100.00	18,744.11
1965	4,865.86	8,989.08	50.00	9,039.08
1966	29,134.37	15,983.09	4,334.00	20,317.09
1967	22,241.52	25,473.38	675.47	26,148.85
1968	27,244.50	26,233.83	426.50	26,660.33
1969	8,450.91	14,705.53	60.00	14,765.53
1970	21,598.17	10,332.68	---	10,332.68
1971	24,000.42	20,098.94	2,954.12	23,053.06
1972	17,521.51	25,795.41	---	25,795.41
TOTALS	\$ 298,887.97	\$ 295,016.74	\$ 12,592.61	\$ 307,609.35

^aCrop Year refers to crops grown in one year. Returns from that crop overlap into the next taxation year. Therefore, receipts in any one taxation year have portions of returns from two crop years.

SOURCE: Appendix B, "TUMBLEMOON RANCH, INCOME STATEMENTS, 1958 to 1972", and Crop Returns Ledger, Tumblemoon Ranch.

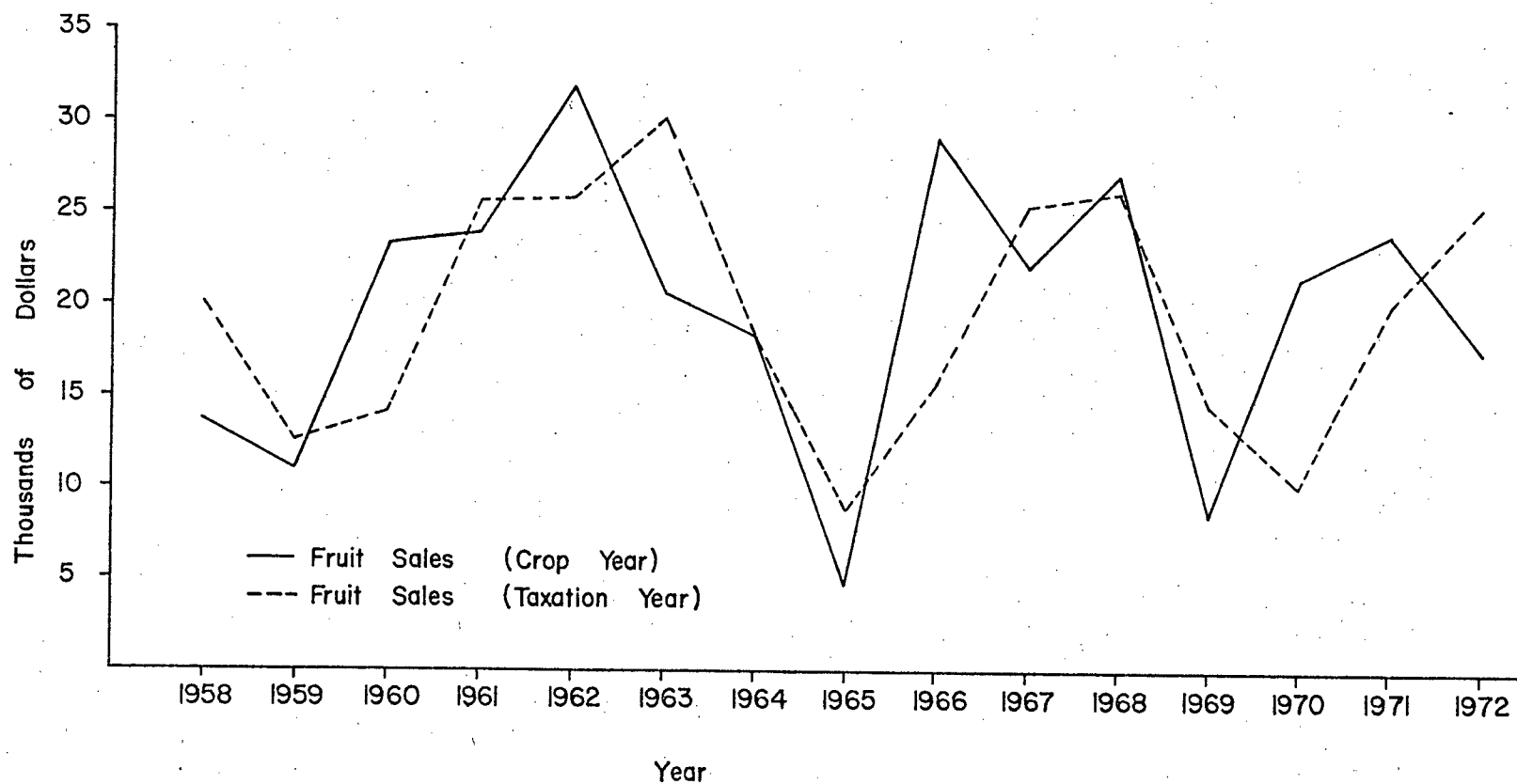


Figure 4

RETURNS- CROP YEAR COMPARED WITH TAXATION YEAR

SOURCE: Appendix B, TUMBLEMOON RANCH, INCOME STATEMENTS, 1958 to 1972

to the final average market price received by B. C. Tree Fruits Ltd., could arrive as much as eighteen months after shipment of the crop. These are the primary reasons for the more moderate response to good and bad years when analysed by taxation year.

The single major reason for the yearly fluctuation in crop returns has been the weather - primarily the winter extreme temperatures. Figure 5, "MINIMUM ANNUAL TEMPERATURES, PENTICTON AIRPORT 1958 to 1971", shows the extent of sub-zero weather over the 14 year period. In constructing the graph the minimum temperature of each year was recorded rather than the winter minimum. Comparing the periods of severe weather to Figure 4, the winters of 1959 and 1969 correspond with two of the three major years when crop returns fell drastically. The other year, 1965, was characterized by a spring frost in late April, of 25 degrees.²⁸ Obviously the weather at Tumblemoon Ranch greatly influences the gross income of the agricultural enterprise.

The tons of fruit and the subsequent gross income of the ranch must be balanced against the costs of production. This way the eight years of negative income after depreciation, shown on Figure 3 can be explained. Table 4, "ANNUAL EXPENSES BY EXPENSE CLASS, TUMBLEMOON RANCH, 1958 - 1972", classifies the cost involved. The actual costs are

²⁸British Columbia, Department of Agriculture, Climate of British Columbia, Queen's Printer, Victoria, B.C., 1965.

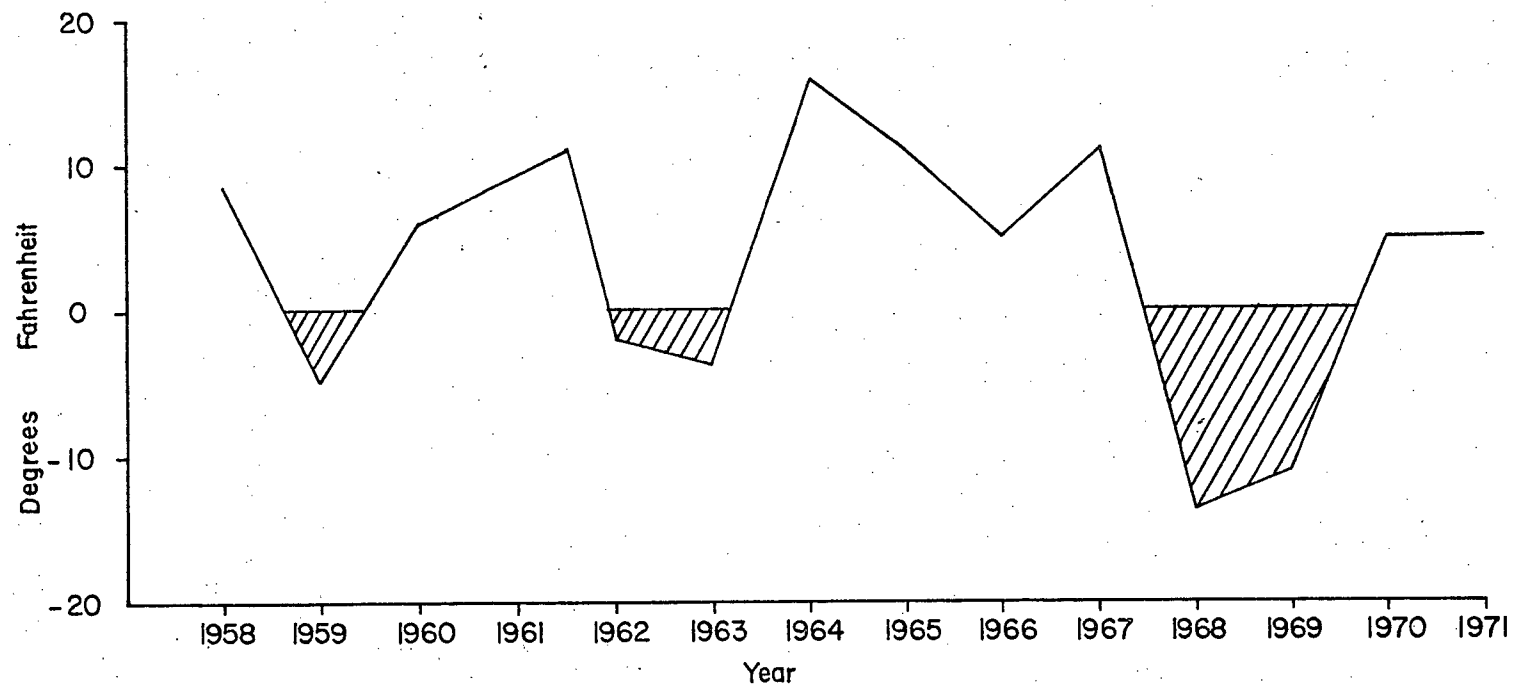


Figure 5

MINIMUM ANNUAL TEMPERATURES , PENTICTON

AIRPORT 1958 to 1971

Source : British Columbia , Department of Agriculture , Climate of British Columbia

Queens Printer, Victoria, B.C. , 1958 to 1971

Table 4

ANNUAL EXPENSES BY EXPENSE CLASS

TUMBLEMOON RANCH, 1958 - 1972

	<u>Overhead Costs</u>	<u>Pre-harvest Costs</u>	<u>Dollars Harvest Costs</u>	<u>Extraordinary Costs</u>	<u>Total Annual Expenses</u>
1958	2,722.03	8,010.73	10,896.51	---	21,629.27
1959	1,859.96	6,541.57	7,430.80	---	15,832.33
1960	3,125.84	6,672.01	7,893.94	---	17,691.79
1961	3,283.11	8,028.72	10,303.63	535.25	22,150.71
1962	3,832.74	7,235.82	12,629.18	---	23,697.74
1963	3,495.57	6,858.65	8,897.63	---	19,251.85
1964	3,453.14	6,745.92	11,687.72	---	21,886.78
1965	2,623.79	4,715.81	5,409.69	---	12,749.29
1966	3,813.60	3,556.43	7,935.44	392.46	15,697.93
1967	5,353.19	4,615.32	11,306.74	---	21,275.25
1968	5,531.66	3,800.65	11,092.02	---	20,424.33
1969	3,381.27	1,885.91	46.38	---	5,313.56
1970	3,806.13	4,579.10	9,966.66	395.46	18,747.35
1971	9,502.73	5,907.18	14,186.71	156.76	29,753.38
1972	5,502.33	6,559.65	13,891.09	9,146.55	35,099.62

SOURCE: Appendix B, "TUMBLEMOON RANCH, INCOME STATEMENTS, 1958 to 1972";
 format for expenses from: R. B. Tukey, "Implications of Economics on Orchard
 Management", Proceedings of the First BCFGA Horticultural Conference, The 1969
APPLE FORUM, (November 24, 25, 1969), Penticton, B. C., P. 37.

of less importance than their nature and distribution. Consequently the annual costs were broken down into three major groups. These major costs groups were: overhead costs, pre-harvest costs, and harvest costs. Another minor group, entitled extraordinary costs, was used to account for occasional expenses that did not fit strictly into any of the three major categories. The major extraordinary expenses occurred in the four years in which trees were replaced. These semi-overhead expenses were placed in this category since they occurred randomly rather than in a regular manner. The costs of re-furbishing the orchard would seem to correspond to the capital costs of other businesses; however, these costs are not allowed to be depreciated, and are considered a current expense. These classifications of costs were suggested by Dr. Tukey in his paper presented to the B. C. Fruit Growers Association, Horticultural Conference in 1969.²⁹ He categorized overhead costs as taxes and costs for irrigation water, interest and depreciation; pre-harvest costs as the growing costs, such as costs of repairs, fuel, grease and oil, interest on operating capital, irrigating, spraying, mowing and the wages and benefits incurred in the pruning and thinning operations in the orchard. The harvest costs were largely the expense of picking.

In his 1965 study Dr. Tukey found that the overhead

²⁹Tukey, op. cit., p. 37.

and pre-harvest costs were nearly equal in magnitude as categories, and were relatively fixed. The harvest costs were the variable costs.³⁰ Table 5, "DISTRIBUTION OF AVERAGE PRODUCTION COSTS BY EXPENSE CLASS, TUMBLEMOON RANCH COMPARED WITH WASHINGTON STATE", compares the fifteen year average distribution of costs on Tumblemoon Ranch to Tukey's study. In both cases, the overhead and the pre-harvest costs are approximately equal, with Tumblemoon Ranch having 29.01% and 25.36% respectively. Washington State had much higher average expenses in both classes with 40% of the costs arising in overhead and 44% in pre-harvest.

It is interesting to compare the costs per bearing acre for each of these areas as it is this data upon which the percentages in Table 5 were based. In Washington State the average cost of production per bearing acre was \$750 in 1965, whereas in the same year in the Okanagan (Tumblemoon Ranch) the cost was \$426.33. The fifteen year average cost per bearing acre at Tumblemoon Ranch was \$617.30.³¹ A great deal of the increase in average cost between 1965 and the fifteen year average was due to substantial cost increases

³⁰Ibid. p. 35.

³¹Since the actual number of acres in orchard production is not known for each year, the 1973 data which was derived from the 1969 Tree Census, B. C. Department of Agriculture, will be used (Table 1). The small amount of orchard size decrease between 1965 and 1973 will only make Tumblemoon Ranch costs slightly higher.

Table 5

DISTRIBUTION OF AVERAGE PRODUCTION COSTS BY
EXPENSE CLASS, TUMBLEMOON RANCH COMPARED
WITH WASHINGTON STATE
Per Cent

<u>Expense Class</u>	<u>Tumblemoon Ranch</u> ^a	<u>Washington State</u> ^b
Overhead	29.01	40.00
Pre-harvest	25.36	44.00
Harvest	42.48	16.00
Extraordinary	3.15	---
Totals	100.00	100.00

^aFifteen year average.

^b1965 survey only.

SOURCE: Appendix B, "TUMBLEMOON RANCH, INCOME STATEMENTS, 1958 to 1972" and R. B. Tukey, "Implications of Economics on Orchard Management", Proceedings of the First BCFGA Horticultural Conference, The 1969 APPLE FORUM, (November 24, 25, 1969), Penticton, B. C. P. 35.

in 1971 and 1972. In 1971, the average cost per bearing acre was \$891.80 and \$1038.63 in 1972.³²

The higher proportion of variable costs in the Okanagan, as shown on Table 5, could reflect the rapidly rising minimum wage and the extremely high labor turnover in tree-fruit growing areas. The owner-operator carries out the majority of the pre-harvest operations independently to avoid some of problems of decreasing quality of labor. This situation probably causes the different sources of cost influence in the pre-harvest and harvesting portion of expenses.

The overhead costs are influenced most by interest expense on the capital invested. The lower distribution of costs in overhead at Tumblemoon as compared with Washington State probably reflects the lower age distribution of the survey respondents in Tukey's study. These Washington orchardists would probably be more heavily mortgaged, and consequently would have a greater interest expense.

The age differential would still apply if the Washington Study is compared with Arendt's 1969-1970 study rather than just Tumblemoon Ranch. The Arendt study reveals that the average age of the 57 orchardists was 48 years old,

³²See Table 1, "LAND USE AND LAND USE CHANGES TUMBLEMOON RANCH, 1946-1973" and Appendix B, "TUMBLEMOON RANCH, INCOME STATEMENTS, 1958 to 1972. Both used to derive average cost per bearing acre.

with 54 percent being between the ages of 41 and 50.³³ The tree-fruit industry in the Okanagan lacks the economic stability to encourage young people to stay with the family farm. This is reflected in the increasing average age of the orchardists - new blood does not enter the industry.

Table 6, "NET INCOME BEFORE AND AFTER DEPRECIATION EXPENSE" combines depreciation expense with Tables 3 and 4, so that the real economic situation is shown. Figure 3, which graphs some of the information from Table 6, reveals that, at best, fruit growing on Tumblemoon Ranch is a form of subsistence farming.

Unfortunately, the primary objective of an orchard as an agricultural enterprise has never really been achieved at Tumblemoon Ranch.³⁴ Profit through the sale of fruit has not been a regular accomplishment, and the last three years of the study were not encouraging for the orchardist-operator. The net loss after depreciation in 1972 amounted to \$12,114.46, an unprecedented low in its economic history. It is with an appreciation of the economic frustrations of fruit farming on Tumblemoon Ranch that analysis of the early changes in land use has been carried out.

³³Arendt, op. cit. p. 3.

³⁴Tukey, op. cit. p. 33.

Table 6

NET INCOME BEFORE AND AFTER DEPRECIATION EXPENSE

	Total Ranch Income \$	Total Cash Expenses \$	Net Income Before Depreciation \$	Depreciation Expense \$	Net Income After Depreciation \$
1958	23,289.35	21,679.27	1,660.08	2,950.55	-1,290.47
1959	13,025.19	15,832.33	-2,807.14	2,235.33	-5,042.47
1960	14,439.41	17,691.79	-3,252.38	1,985.63	-5,238.01
1961	25,781.01	22,150.71	3,630.30	1,996.77	1,633.53
1962	25,891.56	23,697.74	2,193.82	1,583.04	610.78
1963	30,326.69	19,251.85	11,074.84	1,832.58	9,242.26
1964	18,744.11	21,886.78	-3,142.67	2,521.89	-5,664.56
1965	9,039.08	12,749.29	-3,710.21	2,811.78	-6,521.99
1966	20,317.09	15,697.93	4,619.16	2,705.79	1,913.37
1967	26,148.85	21,275.25	4,873.60	2,705.79	2,167.81
1968	26,660.33	20,424.33	6,236.00	2,778.90	3,457.10
1969	14,765.53	5,313.56 ^a	9,451.97	2,167.23	7,284.74
1970	10,332.68	18,747.35	-8,414.67	2,806.28	-11,220.95
1971	23,053.06	29,753.38	-6,700.32	2,879.50	-9,579.82
1972	27,795.41	35,099.62	-9,304.21	2,810.25	-12,114.46

^aYear of Management Contract with Business Associate, due to trip to Great Britian.

SOURCE: Appendix B, "TUMBLEMOON RANCH, INCOME STATEMENTS, 1958 to 1972"

The Early Subdivision Schemes

The pressure for subdivision of Tumblemoon Ranch began the same year that a record crop in tons of produce turned into a \$3,142.67 loss before depreciation (Table 6). Figure 6, "AVERAGE CROP RETURNS PER TON, BY CROP YEAR" illustrates this phenomenon, which is a function mainly of quality and aggregate supply of tree fruit. In the price elastic market associated with his produce the orchardist suffers in excellent crop years as well as in poor ones.³⁵

It was not surprising, then, that the orchardist-operator started a five lot subdivision in early 1964. Inquiries into the availability of his land for residential use had begun in late 1958, with the completion of the Lakeshore road from Penticton to Okanagan Falls on the east side of Skaha Lake. The inquiries had increased until the orchardist had two firm offers in the summer of 1964.

The subdivision removed nearly twenty acres of land from the north-western extremity of the property, of which 17.66 acres were lots and the remainder were roads (See Table 1, pg. 15).

The sale of the 1964 subdivision lots were spread out over a five year period with the last lot being sold in 1969. Table 7, "LOT SALES, 1964 and 1971 SUBDIVISIONS"

³⁵William C. Blanchfield and Jacob Oser, ECONOMICS, Reality Through Theory, (New York: Harcourt Brace Jovanovich, INC.) p. 109-112.

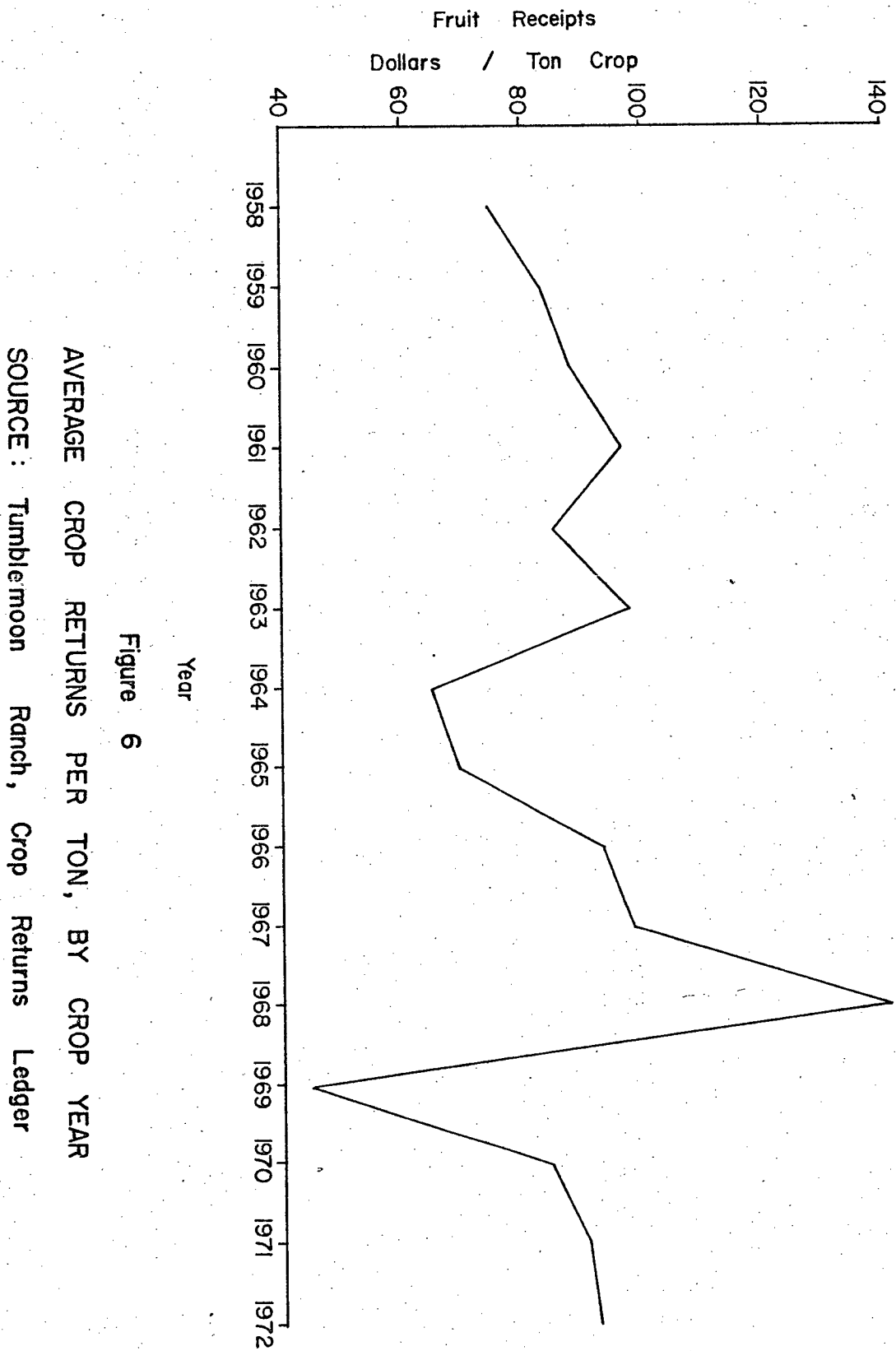


Figure 6

AVERAGE CROP RETURNS PER TON, BY CROP YEAR
 SOURCE : Tumblemoon Ranch, Crop Returns Ledger

Table 7

"LOT SALES, 1964 AND 1971 SUBDIVISIONS"1. 1964 Subdivision

<u>Year of Sale</u>	<u>Lot No.</u>	<u>Acres</u>	<u>Selling Price (\$)</u>	<u>\$/Acre</u>
1964	1	1.16	3000	2,586.24
1964	2	5.13	5000	974.66
1965	3	7.74	8000	1,033.59
1967	5	2.21	6000	2,714.93
1969	4	<u>1.42</u>	<u>4750</u>	3,345.07
Totals		17.66	26,750	

2. 1971 Subdivision

1971	2	0.534	4,500	8,426.97
1971	5	1.283	10,000	7,794.23
1972	1	0.811	5,500	6,781.75
1972	3	0.472	3,750	7,944.92
1972	4	<u>0.476</u>	<u>4,000</u>	8,403.36
Totals		3.576	27,750	

3. 1971 Subdivision Extension

1972	1	3.449	10,000	2,899.39
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SOURCE: Lot Plans (Blueprints) from Land Registry Office, Kamloops, B. C. for the lot sizes and Tumblemoon Ranch Records for the selling prices.

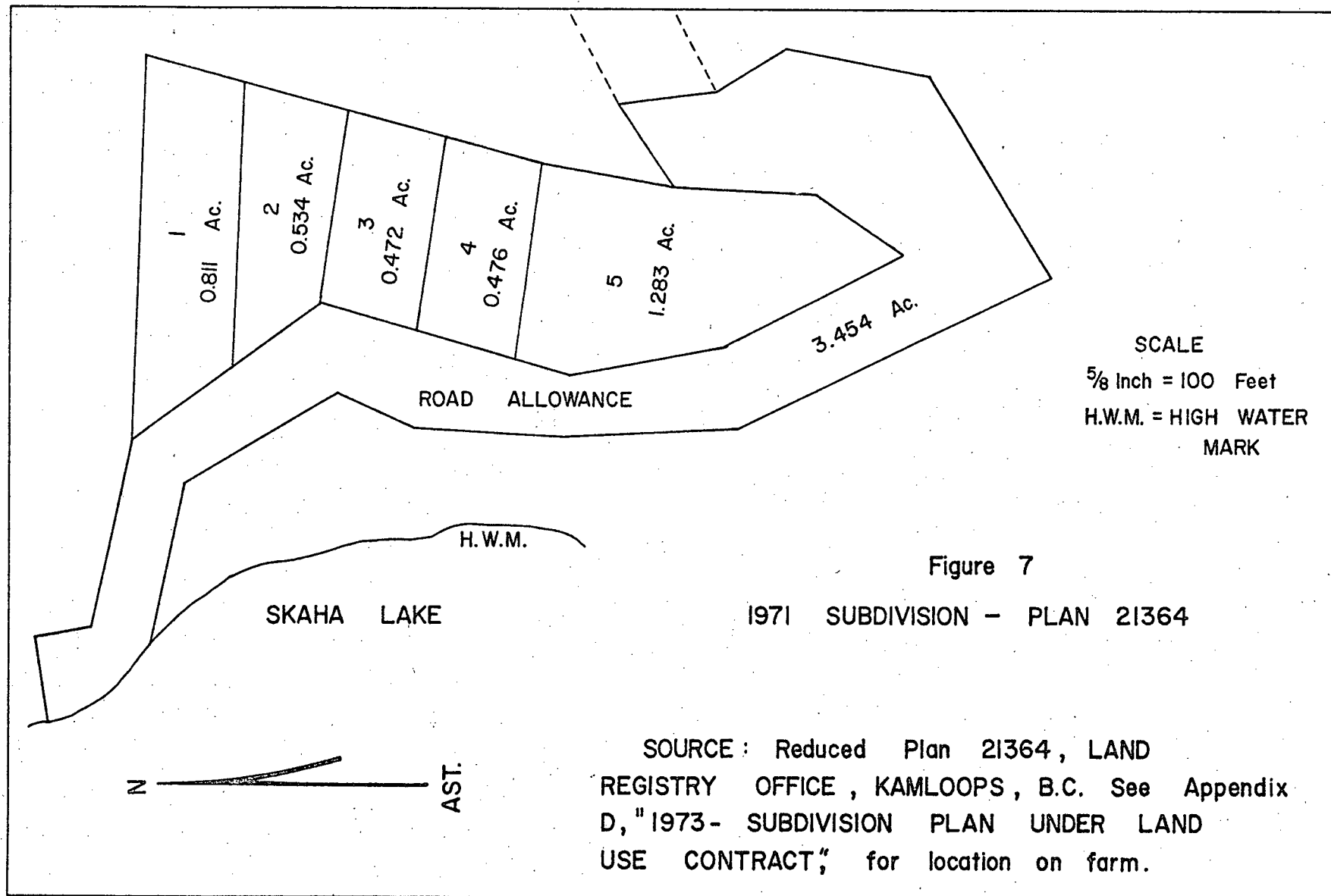
provides explicit data about the nature and market prices of the transactions.

The orchardist placed a great deal of value on the aesthetics and location of his lots from the beginning of his subdivision activities. It is not surprising then that there is a considerable variation in selling price per acre in 1964. Lot #1 was a choice lot with moderate grade, and was immediately adjacent to the road facing the lake. It sold for \$2,586.24 per acre. Lot #2 contained a great deal of steeply sloping land which would be of limited value for improvements. Consequently the price was based primarily on the two acres of usable land.

The increased selling price from 1967 to 1969 reflects the increased demand for the property outside the city limits of Penticton. The orchardist-operator inquired of real estate agents and other landowners as to the market price of similar land and then set his prices accordingly.

The 1971 subdivision was a continuation of the philosophy that the returns from the subdivision were a source of operating capital. Although not untrue, this is an oversimplification of the situation.

Figure 7, "1971 SUBDIVISION - PLAN 21364" shows the basic layout of the subdivision. Lot 5 of this subdivision is readily visible on Appendix A, "AERIAL PHOTOGRAPHS OF CASE STUDY AREA" as the flat spit of land on the first hill behind the farm house, and is typical of the complete subdivision. The apple and apricot trees in the



orchard portion of this subdivision were old and near the end of their bearing cycle. As well, the trees were a variety of "full-sized" trees that were increasingly uneconomic to prune, spray, thin and harvest because of their height above the ground. Therefore, rather than cut them down and replant with some dwarf variety, the orchardist subdivided.

Table 7, is not evidence that the orchardist made a considerable amount of money from his two subdivisions. In fact, his net return in the form of disposable income was far below the level of gross receipts for the property. Since detailed records of the types and magnitude of expenses in 1964 were not available, the 1971 subdivision has been used to represent the typical costs and net returns to the orchardist-operator.

Table 8, " 1971 SUBDIVISION COSTS AND RETURNS" is a simplified presentation of revenues and costs for the 1971 subdivision. The orchardist-operators' complicated accounting system was necessitated by the Farm Credit Corporation's regulations about repayment of mortgage money when a portion of the mortgaged property is sold.³⁶

As can be seen from Table 8, the orchardist-operator received a total of \$5,970.97 of disposable income from the 1971 subdivision (\$1,500.00 cash deposit plus

³⁶Farm Credit Act., R.S. 1959, c. 43, s.1; 1970, CHAPTER F-2, s. 16, (e), (ii).

Table 8

1971 SUBDIVISION COSTS AND RETURNS

Income:

Sale of five lots:	\$27,750.00		<u>\$27,750.00</u>
Less cash deposite (lot 5)	<u>1,500.00</u>	\$26,250.00	

Expenses:

Moving Telephone Poles \$	394.40		
Land Surveying	783.82		
Welding	5.00		
Relocation of irrigation pipe	24.56		
Sand, gravel road building	1,097.60		
Legal Expenses	<u>792.62</u>	<u>\$ 3,098.00</u>	<u>\$ 3,098.00</u>

Net Subdivision Return: \$24,652.00

^aDeposit to Farm Credit Corporation
"Suspense" Account \$23,152.00

Reduction of Principal, Farm Credit Corporation Mortgage	7,558.58	
Cash to Orchardist	<u>4,470.97</u>	<u>\$12,029.55</u>

^bHeld in "Suspense Account"
by Farm Credit Corporation \$11,122.45

^aSince the orchardist-operator has a mortgage under the Farm Credit Corporation, subdivision must be approved by the Corporation and income from that subdivision must be controlled by it through a "Farm Credit Corporation Suspense Account".

^bThe balance held in Suspense Account would be applied to the principal of the mortgage or future payments; by agreement between Orchardist and the Corporation.

SOURCE: TUMBLEMOON RANCH RECORDS, 1971 Subdivision Ledger Sheet.

\$4,470.97 from the Farm Credit Corporation's Suspense Account). Although his indebtedness is substantially decreased, the net disposable income is hardly significant in light of the \$9,579.82 operating loss after depreciation³⁷ in that year.

However, on close examination of the 1971 Income Statement, a significant increase in overhead interest expense is observed suggesting that a portion of the \$11,122.45 held in the suspense account by the Farm Credit Corporation³⁸ was used to pay interest expense on retirement of the \$7,558.58 in principal on the mortgage. If this were the case, the \$6,700.32 loss before depreciation would be over-stated, taking into account the income from the subdivision. The net income from the subdivision, plus interest expense from the suspense account would have given the orchardist-operator a net income on all his activities of \$2,-3,000 before depreciation expense.

The subdivision extension in 1972 which removed another 5.09 acres from the Ranch³⁹ was the last parcel of land which the Planning Director of the Okanagan-Similkameen Regional District would allow to be removed from the farm without the use of a land use contract. Figure 8, "1971

³⁷Appendix B, 1971 Income Statement.

³⁸Bottom of Table 8, pg. 39.

³⁹See Table 1, pg. 15.

SUBDIVISION EXTENSION PLAN 23475", establishes the location of the one lot relative to the 1971 subdivision. Thus, the piecemeal subdivision of Tumblemoon Ranch was ended; however the orchardist proceeded immediately that fall, to enter into a land use contract with the Okanagan-Similkameen Regional District.

The Land Use Contract - The December 1972 Scheme

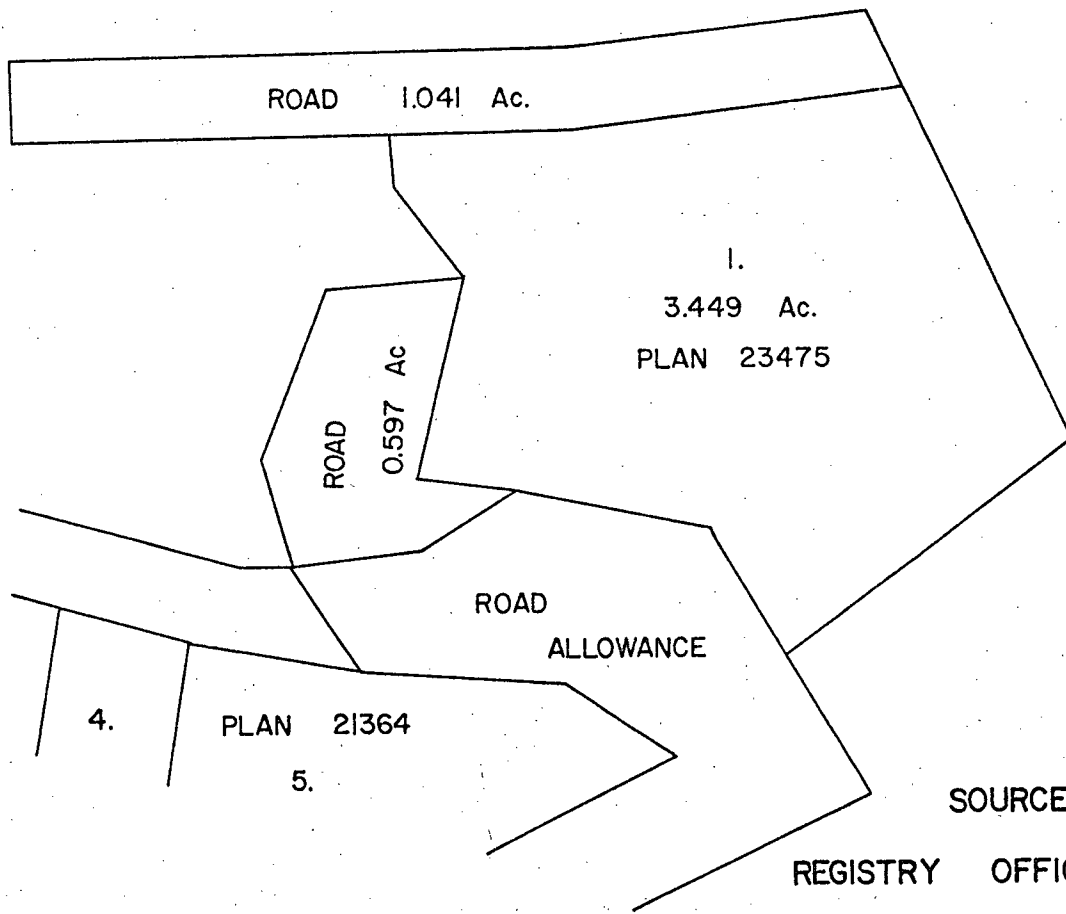
In 1971, the government replaced the development permit device with the land use contract. This gave the land owner the right to develop under the existing zoning classification or the land use contract.⁴⁰

The change in the Municipal Act provided in the new Section 702A, allowed the municipalities and the regional districts to move out of the "law-making, regulatory, policy power bundle of ground rules into the housekeeping powers".⁴¹ This in theory allowed the municipalities to require the developer to virtually do as they dictated. The developer's only alternative would be to attempt to carry out a project under the existing by-laws.

The procedure which the attorney must go through to secure a land use contract for his client is uncomplicated,

⁴⁰K. C. Woodsworth, (Ed.), Land Use Control, Course in Continuing Legal Education, Centre for Continuing Education, University of British Columbia, Vancouver, B.C. October 1972, p. 12.

⁴¹Ibid. p. 13.



SCALE

5/8 Inch = 100 Feet

Figure 8
1971 SUBDIVISION EXTENSION,
PLAN 23475

SOURCE: Reduced Plan 23475, LAND
REGISTRY OFFICE, KAMLOOPS, B.C., See
Appendix D, "1973- SUBDIVISION PLAN UNDER
LAND USE CONTRACT", for location on farm.

yet essential. An application is made for the proposed development, stating the property involved, its present zoning and use, the change required and the reasons for the change. The application is submitted together with essential plans and proof of authorization of the registered land owner. The application is then referred to a committee for consideration. In the case of Tumblemoon Ranch it was the Board of the Regional District of Okanagan-Similkameen. At this point the board must pass a development area by-law,⁴² pursuant to the requirements of Section 702(a)(2)⁴³ of the Municipal Act. In this development by-law the board designates the area in which it will consider land use contracts.

Thus far, the board has done nothing other than to indicate to the public that it will consider an application for a land use contract in that area. Now the board or council and the applicant negotiate a draft form of land use contract which is submitted formally to the board for approval in principle, whereupon it goes to a public hearing. To be approved at this hearing the changes indicated by the board and the public must be incorporated into the plan.

If there are substantial changes made to the initial land use contract after the public hearing, especially in the form of a higher and more intensive use another public

⁴²Ibid. p. 43.

⁴³Municipal Act, op. cit. Section 702(a)(2).

hearing is required.⁴⁴ A lower or less intense use on the other hand would probably not require a new public hearing, merely an amendment to the contract as Mr. W. T. Lane suggests.⁴⁵

Since little is known about its ramifications, the land use contract is an interesting and maybe fearsome land use control in British Columbia. The technique itself is innovative, flexible and a unified approach which allows whole developments to be presented at one public meeting. However, will the municipalities and regional districts use it to advantage or will they set their requirements beyond the reach of the average developer? These questions cannot be answered for the province as a whole, but will depend on the decision-makers in each area.

These general introductory remarks on the application and nature of the land use contract serve as an interesting backdrop against which to analyze the Tumblemoon Ranch land use contract of December 22, 1972.

In the spring of 1972 the Planning Director of the Okanagan-Similkameen Regional District decided that no more development of Tumblemoon Ranch would be allowed in the form of a series of small subdivisions. The orchardist-operator made application to the "Board of the Regional District" to have the development by-law passed such that he might apply

⁴⁴Ibid. Section 703(5).

⁴⁵Woodsworth, op. cit. p. 41.

for a land use contract on Tumblemoon Ranch.

This was passed, and on September 14, 1972, the Board and the orchardist agreed on a draft land use contract which called for between 320-329 lots depending on allowances for the reservoir. At a public meeting later in the fall, pressure from the public as well as the Planning Director, caused this draft to be modified to include only 162 lots. The fundamental land use contract which the orchardist and Regional District entered into on December 22, 1972 appears as Appendix C, "LAND USE CONTRACT".

The subdivision plan submitted to the Planning Director to supplement the land use contract is Appendix D, "1972 - SUBDIVISION PLAN UNDER LAND USE CONTRACT".

These two documents provide the basic data on which development was planned. However, the complete picture would not be clear until the orchardist's plans for disposal of the property are outlined. In May 1972, the orchardist entered an option to purchase agreement with a Victoria developer. The option gave the developer the right to purchase the land on or before July 1, 1973 for \$225,000. There was a down payment of \$1000 at the time of signing the agreement, and a further \$10,000 payable within the month. If and when the developer exercised his option another \$64,000 would be paid the vendor pending termination and completion of the sale. The balance of \$150,000 was to be secured in the form of a first mortgage on the vendor's land, payable in quarterly installments of \$6,000.00, commencing

the first day of the quarter next following the quarter in which the purchase and sale of the vendor's land had been completed. The complete balance and outstanding interest at 9 1/2% per annum compounded semi-annually would be payable on the first day of July, 1978.

The proposed development under the December 22, 1972 land use contract was to be carried out in four development stages as outlined in Schedule "B" of Appendix C. These four stages have been drawn on Appendix D, "1973 SUBDIVISION PLAN UNDER LAND USE CONTRACT". The acreage of lots, road allowances, open space and various other uses tabulated in Table 9, "LAND AREA BY USAGE AND DEVELOPMENT CATEGORY - DECEMBER 1972 LAND USE CONTRACT".

A Change in Political Power

On August 30, 1972, the New Democratic Party under the leadership of David Barrett scored a resounding political victory over the Social Credit regime of W. A. C. Bennett in British Columbia's Provincial Election.⁴⁶ The victory was a solid one, with the NDP winning 38 seats in the 55 seat House.⁴⁷

⁴⁶"NDP sweeps to B. C. victory, ends Bennett's 20 year rule", The Globe and Mail, Toronto, (August 31, 1972), p. 1.

⁴⁷Ken Romain "Barrett goes Fishing, Bennett set meeting to plan NDP takeover", The Globe and Mail, Toronto, (September 1, 1972), p. 8.

Table 9

LAND AREA BY USAGE AND DEVELOPMENT

CATEGORY - DECEMBER 1972 LAND USE

CONTRACT

COMPLETE DEVELOPMENT

No. of Lots	162
	<u>Acres</u>
Area of Lots	149.91
Road Allowances	31.12
Open Space	86.17
Game Sanctuary	20.89
Lake	<u>1.91</u>
Total	290.00

DEVELOPMENT CATEGORY

	<u>STAGE 1</u>	<u>STAGE 2</u>
No. of Lots	50	34
	<u>Acres</u>	<u>Acres</u>
Area of Lots	48.45	40.51
Road Allowances	7.21	8.63
Open Space	---	45.90
Game Sanctuary	---	---
Lake	<u>---</u>	<u>---</u>
Totals	55.66	95.04
	<u>STAGE 3</u>	<u>STAGE 4</u>
No. of Lots	21	57
	<u>Acres</u>	<u>Acres</u>
Area of Lots	29.06	31.89
Road Allowances	7.79	7.49
Open Space	36.55	3.72
Game Sanctuary	20.89	---
Lake	<u>1.91</u>	<u>---</u>
Totals	96.20	43.10

SOURCE: Appendix D, by Planimeter.

The campaign of the NDP party promised changes in land-use legislation. An NDP platform publication entitled: "NDP: A NEW DEAL for PEOPLE" issued during the August election campaign stated the intentions of the party:

"An NDP government will:

-Establish a land-zoning program to set aside areas for agricultural production and to prevent such land from being subdivided for industrial and residential areas.

-Establish a land bank to purchase existing and rezoned agricultural land for lease to farmers on a long-term basis."⁴⁸

With such indications as this and regular pronouncements about the evils of conversion of agricultural land in the Lower Mainland of British Columbia to residential and industrial uses, it was not surprising that the new cabinet passed an order-in-council on December 21, 1972 placing a moratorium on all decisions relating to subdivision and rezoning applications of farm lands.⁴⁹ The moratorium was necessary according to the Minister of Agriculture, Hon. David D. Stupich, pending the establishment of a farm land preservation policy which would be the subject of legislation to be presented in the next session of the Legislature.

On February 22, 1973, the NDP government introduced

⁴⁸Allan Fotheringham, "There's An Obvious Reluctance to Downgrade...", The Vancouver Sun, (March 14, 1973), p. 43.

⁴⁹"FREEZE ON FUTURE FARM LAND SUBDIVISION", The British Columbia Orchardist, (January 1973), Vol. 13, No. 2, p. 21.

the Land Commission Act, more widely referred to as Bill 42.⁵⁰ The bill became one of the most hotly debated issues of the new government's first legislative session. The bill established the vehicle that set up a five-member appointed commission with wide powers of designation and use of all land in the province.⁵¹

Amendments to the Land Commission Act (Bill 42) were announced by the Minister of Agriculture, David Stupich on March 14, 1973.⁵² The amendments dealt primarily with the areas of public discontent with the bill and covered:

(1) The right of appeal from decisions of the land commission;

(2) Clarification of the section empowering the commission to zone land into four different categories;

(3) Inclusion of municipalities and regional districts in the zoning process; and

(4) Denial of expropriation rights for the commission.⁵³

It was not until July 3, 1973 that Lieutenant Governor Walter Owen signed the major sections of the Land

⁵⁰Marjorie Nichols, "Grip sought on all land", The Vancouver Sun, (February 23, 1973), p. 1.

⁵¹"Land board named", The Vancouver Province, (May 18, 1973), p. 1.

⁵²"Four Land Act Amendments Pledged", The Vancouver Sun, (March 15, 1973), p. 1.

⁵³Ibid.

Commission Act into Law.⁵⁴

It should be noted that the agricultural land freeze established by order-in-council of December 21, 1972 was the mechanism which prevented the orchardist-operator of Tumblemoon Ranch from proceeding with development of his land. Whether by coincidence or not the land use contract was approved the day after the agricultural land freeze on December 22, 1972. Consequently, the orchardist was required by law to seek further approval although the Planning Director and the Board of the Regional District of Okanagan-Similkameen had already approved his contract.

Between the time of the commencement of the agricultural land freeze on December 21, 1972, and July 3, 1973 when functional sections of the Land Commission Act were proclaimed as law, the Environment and Land Use Committee under the Department of Municipal Affairs had jurisdiction over the land freeze. There were three classifications of land that stood a chance of being exempted from the freeze:

- "-Land on which a development had substantially commenced on December 21, 1972.
- Land that is clearly not suitable for agriculture.
- Land that, while arable, is unsuitable for permanent cultivation due to its proximity to existing industrial or residential development or due to its minimal size."⁵⁵

⁵⁴Marjorie Nichols, "Key sections of land act officially put into force", The Vancouver Sun, (July 4, 1973) p. 1.

⁵⁵Peter Watts, "Land Act Analysis", Journal of Commerce, (May 8, 1973), p. 8.

The appeal procedure of the Environment and Land Use Committee required that the application under appeal be in the form of a sworn statement. It must first be given approval by the municipality, regional district or Department of Highways, whichever the case, and then forwarded for appeal to Victoria.

It was this procedure which the orchardist-operator of Tumblemoon Ranch began when it became apparent that he was one day short of having his land use contract accepted and registered against his property.⁵⁶

He chose to base the appeal on the first two classifications under which the land freeze might be lifted; "substantial commencement" and "land unsuitable for agriculture". To substantiate his appeal, he had a soil appraisal on March 8, 1973. It was performed by the Canada Department of Agriculture, which recommended that all land, except the southern portion of the Ranch where orchards now were in existence should be released from the agricultural land classification.

These orchards consisted of about seven tenths class 2 agricultural land⁵⁷ and three tenths class 6. Consequently of the approximately forty acres of orchard only

⁵⁶Municipal Act, op. cit. Section 702A(4).

⁵⁷Canada Land Inventory Soil Capability Ratings for tree-fruit growing, from conversation with orchardist, July 30, 1973.

28 acres were deemed suitable as agricultural land. This 28 acres was only 9.66% of the total area mentioned under the land use contract.

On May 15, 1973, the orchardist wrote the Planning Director of the Okanagan-Similkameen Regional District accepting the fact that a portion of the land (28 acres) was capable of agricultural use under the definition of the Environment and Land Use Act.⁵⁸ He asked that the land use contract be amended to exclude this farm land from the subdivision.

This amendment was passed by the board of Regional District on May 17, 1973. In actual fact the board removed 38.96 acres from the subdivision plan. These 39 acres removed 59 proposed lot sites from the development. Table 10, "LAND AREA BY USAGE AND DEVELOPMENT CATEGORY - APRIL 1973 LAND USE CONTRACT", shows the changes which the amendment to the land use contract had made on the development stages as compared with Table 9. The land removed because of the agricultural land freeze and the pending legislation in the form of the Land Commission Act, has been called "Farmland Reserve".

This amended contract was submitted to the Department of Municipal Affairs. On May 24, the Planning Director was advised by staff of the department that they would recommend against the amended land use contract, giving no

⁵⁸Watts, op. cit.; Land with classes 1-4 of the classification of soil capability for agriculture, Canada Land Inventory (ARDA).

Table 10

LAND AREA BY USAGE AND DEVELOPMENT CATEGORY

-APRIL 1973 LAND USE CONTRACT

<u>COMPLETE DEVELOPMENT</u>		
No. of Lots	103	
	<u>Acres</u>	
Area of Lots	115.94	
Road Allowances	26.13	
Open Space	86.17	
Farmland Reserve	38.96	
Game Sanctuary	20.89	
Lake	<u>1.91</u>	
Total	290.00	
<u>DEVELOPMENT CATEGORY</u>		
	<u>STAGE 1</u>	<u>STAGE 2</u>
No. of Lots	49	34
	<u>Acres</u>	<u>Acres</u>
Area of Lots	46.75	40.51
Road Allowances	7.21	8.63
Open Space	---	45.90
Farmland Reserve	1.70	---
Game Sanctuary	---	---
Lake	<u>---</u>	<u>---</u>
Totals	55.66	95.04
	<u>STAGE 3</u>	<u>STAGE 4</u>
No. of Lots	17	3
	<u>Acres</u>	<u>Acres</u>
Area of Lots	25.59	3.09
Road Allowances	7.79	2.50
Open Space	36.55	3.72
Farmland Reserve	3.47	33.79
Game Sanctuary	20.89	---
Lake	<u>1.91</u>	<u>---</u>
Totals	96.20	43.10

SOURCE: Appendix D, by Planimeter.

reasons. The Planning Director advised the orchardist that there should be an appeal to the Environment and Land Use Committee. This procedure was carried out and the appeal was scheduled for the end of July.

However, in the interim, the option to purchase arrangement with the developer had expired. Understandably, since the developer had lost sufficient funds in the "substantial commencement", when he had financed the surveying and planning of the subdivision, which cost nearly \$15,000, to exercise the option pending the outcome of the appeal became too risky an endeavour. Consequently, the orchardist extended the deadline of the option to October 31, 1973, while changing the price from \$225,000 to \$3,000 per lot rezoned or \$309,000.⁵⁹

The amended land use contract was approved for 103 lots by the Environment and Land Use Committee the first week of August.⁶⁰ The option was exercised and the orchardist left the Ranch after the 1973 crop was harvested in November.⁶¹

It is ironical that the orchardist, who nearly lost all the capital gain on his property because of the agricul-

⁵⁹ Correspondence with Orchardist, September 20, 1973.

⁶⁰ Ibid.

⁶¹ Correspondence with Orchardist, December 20, 1973.

tural land freeze and the subsequent Land Commission Act, should acquire an additional \$84,000 because of it. However, this was predictable, as Ralph Carle of Western Realty Projects Ltd. is quoted in the Vancouver Sun:

"The mortgage holder on a frozen property has the same risk as the landowner. There are two potential losers.

The situation invites defaults of mortgage payments in areas that were expected to develop, and where only a small down payment was received by the farmer. For sure the buyer is going to walk away. Most of these buyers were single purpose companies.

But for those with staying power, who are lucky enough to end up with the leopard spots where the government is forced to allow some development, the lands will show a fantastic appreciation."⁶²

The "staying power" of the owner of Tumblemoon Ranch not only netted him and his wife additional capital gain, it allowed their retirement. Will other orchardists be so lucky? Will the new land use controls tend to force the uneconomical orchardists to remain in the industry? What alternatives are available to orchardists?

⁶²Richard Dolman, "Questions sprawl over land freeze", The Vancouver Sun, (March 3, 1973), p. 32.

CHAPTER III
FORCES INFLUENCING LAND USE
CHANGE WITHIN THE TREE FRUIT
INDUSTRY

The tree fruit industry of the Okanagan Valley of British Columbia accounted for approximately 19 percent of the provincial agricultural production in 1970.⁶³ In the years 1969 and 1970, British Columbia produced 24 and 39 percent respectively, of the total value of tree fruit production in Canada.⁶⁴ Of the 35,000 acres occupied by tree fruit production in British Columbia, 32,000 acres are in the Okanagan Valley. Consequently, the magnitude and importance of the tree fruit industry of the Okanagan Valley to British Columbia and the national economy is obvious.

Yet, the tree-fruit industry in the Okanagan Valley is dying. The problem of an uneconomical industry is not a new circumstance for fruit growers. Mr. H. Corbishley giving evidence at first meeting of the Royal Commission on the Tree-fruit Industry of British Columbia, January 30th, 1957, stated:

"Fundamentally, there is only one reason why we growers want a Royal Commission, and that is the indisputable fact that in the midst of a

⁶³ CENSUS OF CANADA, 1971, Agriculture British Columbia. Statistics Canada: Table 21.

⁶⁴ Statistics Canada, Quarterly Bulletin of Agricultural Statistics, October - December, 1971.

booming economy, we are not afraid to admit we are going broke... Regardless of our acreage, or regardless of our ability as orchardists, we are losing money..."⁶⁵

The situation has not changed appreciably since 1957. The 1969-70 marketing season yielded the grower an average of two cents a pound for apples that the retailer was selling for 15 cents a pound.⁶⁶ The production costs for this same period were approximately \$1.60 per box of apples⁶⁷, or 3.81 cents per pound.⁶⁸

Many people blame the central selling agency, B. C. Tree Fruits Ltd. However, if this agency were to ignore outside competition, especially when these areas have a definite comparative advantage in the market, and price on a cost plus profit margin basis, it would be left with surplus fruit at the end of each season.

It is ironical that the Report of the Federal Task Force on Agriculture, Canadian Agriculture in the Seventies, cites the B. C. Tree Fruits Ltd. for excellent export market

⁶⁵Dean E. D. MacPhee, The Report of the Royal Commission on the Tree-fruit Industry of British Columbia, Victoria: Queen's Printer, 1958. p. 9.

⁶⁶"Price Gap Almost Incredible", The British Columbia Orchardist, (August 1970), Vol. 10, No. 11, p. 4 (bottom).

⁶⁷"The Industry Needs A Lifebelt", The British Columbia Orchardist, (August 1970), Vol. 10, No. 11, p. 4 (top).

⁶⁸42 pounds of apples per box.

development and an excellent selling job.⁶⁹ It is rather unfortunate that even this progressive organization is unable to provide more than marginal returns to the orchardist. This selling agency and the grower association counterpart are much envied across the country. The tree-fruit industry in the Okanagan is being modernized as speedily as finances and tree growth allow. The packinghouses rate with the best anywhere. Yet the man who carries this structure on his shoulders is going broke.⁷⁰

The British Columbia Fruit Growers' Association (BCFGA) in realization that the income level of its members was continually declining, presented a brief to the Minister of Agriculture, Mr. David Stupich on May 8, 1973. The problem which the brief confronts cannot be more clearly stated than by a grower who said "Our problem is that we are a \$2.00 industry in a \$5.00 economy."⁷¹

The brief was submitted after the NDP government established the land freeze on all agricultural land. Since the BCFGa felt that this was a positive indication that the

⁶⁹Report of the Federal Task Force on Agriculture, Canadian Agriculture in the Seventies, Information Canada, Ottawa, December 1969, p. 229.

⁷⁰"Price Gap Almost Incredible", op. cit.

⁷¹The British Columbia Fruit Growers Association, "Income Requirement Proposals for the Tree Fruit Industry in British Columbia," Brief to Honourable David D. Stupich, Minister of Agriculture, Kelowna, B. C. May 8, 1973, p. 1.

government wanted to help retain a viable fruit industry, the primary problem of the low income of the orchardist needed to be rectified. To alleviate this problem the BCFGA made several proposals to the provincial government.

A guaranteed price on the top grades of apples (Extra Fancy and Fancy) was suggested by the Minister of Agriculture prior to the brief, and probably was the "germ" of the idea for the association's proposal that 12 cents a pound be paid for all varieties of apples in these two grades. This would be a 35 percent increase (approximately) over the average market level in 1971. The average of 12 cents per pound, by industry consensus, reflects the cost of production of apples.

In order to foster stability in the tree-fruit industry the BCFGA suggested that the crop insurance scheme be expanded to include income. The income insurance would be tied in with the cost of production and would be operated as one scheme. The scheme would compensate the orchardist with high yield per acre since it would be based on production, not acreage.

One of the major capital expenditures which the orchardist must endure is the irrigation system. However, there is wide disparity in irrigation and land tax rates in the Okanagan Valley. This places an unequal burden on different growers. Consequently, the BCFGA proposed that the NDP Government take over the responsibility for all irrigation districts in the Province and declare them a

Provincial resource. In this way the Government could adjust the water taxes to equitably reflect the benefit derived by every segment of the community.⁷²

The tree-fruit industry of British Columbia is still in economic difficulty, sixteen years after the MacPhee Report⁷³ exposed the ills of its operations. In spite of paying substandard wages and salaries, fruit growing has been a holding use for land in the Okanagan Valley. With the Land Commission Act severely restricting conversion of orchard land to higher and more economic uses, the orchards will have to be subsidized to become economically viable units. Why must the tree fruit industry be subsidized and what has occurred over the years to create the situation?

The forces that influence the economic viability of the tree-fruit industry must be examined so that an understanding of their complexities, and their effects on the Okanagan Valley tree-fruit can be understood.

National and International Problems

Until recently, Western Europe served as a most viable market for Canadian and United States apple exports. But Europe's production has increased dramatically and it is

⁷²Ibid. p. 2.

⁷³MacPhee, op. cit. p. 765-804.

rapidly approaching a high degree of self-sufficiency.⁷⁴ However, Europe is only an example of a larger trend in World production. The world-wide production in 1967 was 984 million bushels, a gain of 270 million bushels over the average of the second half of the 1950's (1956-1959).⁷⁵ This represented a 38 percent increase in a decade.

A brief review of the increases in apple production in the major producing regions of the world quickly reveals the extent of a diminishing export market for Canada and the United States. Mr. Sindelar described the growth of world apple production in the following manner:

"In terms of the average production during the four-year period, 1956-59, the 1967 crop in Europe was up, in total, by 40 percent. In South America, where Argentina and Chile are the principal producers the 1967 crop was up 27 percent; in Asia, it was up 87 percent reflecting mainly production from Japan and Mainland China; in Africa, the crop was up 110 percent almost exclusively the Republic of South Africa; and in the Oceania Area, which represents mostly Australia and New Zealand, the 1967 crop was, in total, up 50 percent. The region of North America - which includes United States, Canada and Mexico - was up only 4 percent."⁷⁶

The 1969 crop data was available for Europe and since the North American producers formerly supplied this

⁷⁴Gilbert E. Sindelar, "The Rising Level of World Apple Production," The British Columbia Orchardist, (January 1970), Vol. 10, No. 4, p. 30.

⁷⁵Ibid.

⁷⁶Ibid.

export market, its production increase surely must be described as "breath-taking". Comparing the production to respective averages for 1956-1959, Belgium - Luxembourg production rose 77 percent; West Germany by 58 percent; Netherlands, up 61 percent; Italy, up 22 percent; Spain up 64 percent; Greece, up 104 percent, Yugoslavia up 79 percent; and France up an astonishing 400 percent. Consequently, France has emerged as an exporting nation in the years since 1965. Sixty-three percent of the French apple crop was in the Golden Delicious variety - 46 million bushels compared to United States production of 15 million bushels of this variety in the same year.

The two largest apple importing nations in the world, West Germany and the United Kingdom, have become the main target of France's exports. West Germany, the largest of these two importers, in recent years imported between 24 to 29 million bushels of apples annually, of which about 18 to 24 million bushels came from North America. In the early 1960's France commanded less than one percent of the West German market, however it was estimated that in 1968-1969 she exported 11.4 million bushels to West Germany or 47% of their imports.⁷⁷

In this same year, France exported slightly more than 19 million bushels. This volume was 11 times greater

⁷⁷Ibid. p. 31.

than five years earlier. However, equally disconcerting for the British Columbia Industry was the arrival of 21 carloads of French Golden Delicious apples in Montreal in the fall of 1969.⁷⁸ The movement of France into the home markets of an exporting nation was a particularly bitter pill for British Columbia to accept, even though the United States had always captured a portion of this market.

With world production showing marked increases, and export market attracting increasingly more competition, the Canadian export picture does not look good.⁷⁹ It may be difficult for Canada to continue exporting the usual 3 million bushels a year.

In 1969, British Columbia produced 5.66 million bushels of apples of which 34.2 percent were exported. This is approximately 1.94 million bushels of export apples or 65% of the Canadian export market.⁸⁰ Consequently, if a world surplus of apples causes Canada to lose a portion of its export market, the British Columbia orchardist will feel the effects much more than growers in any other part of the country.

⁷⁸Ibid. p. 32.

⁷⁹J. R. Burns, "The Canadian Apple Industry", Canadian Farm Economics, (December 1969), Vol. 4, No. 5, p. 17.

⁸⁰Ibid. Table 7, p. 12.

Canadian consumption projections for apples to 1980 indicates an increase of 15 percent to 46 pounds per capita.⁸¹ The six pound increase over the 1964-65 data, represents a 0.5 pound increase in fresh consumption and a 5.5 pound increase in processed apples.

The average population in 1964-65 was 19.6 million persons compared to an estimate 26 million for 1980. Applying the 46 - pound bushel to this population level, and hopefully maintaining the present 3 million bushels of export, Canada might be able to market 30 million bushels.⁸²

However at the present time, growers should be prepared to face large increases in production, since the potential yields coupled with a good growing season across the nation could result in an apple crop of about 31 million bushels before 1980.

With such a potential supply and little prospect of increasing demand, no further plantings should take place, other than plantings to maintain a level of production or to change varieties in response to consumer preference.⁸³ The orchards of tomorrow should be designed with the prospect of surplus world supply, especially when internal growth in the

⁸¹Ibid. p. 17.

⁸²Burns, op. cit.

⁸³"Federal Economists Warn of Over-Production in Fruits", The British Columbia Orchardist, (June 1970), Vol. 10, No. 9, p. 4.

industry should exceed the population growth and per capita demand.⁸⁴

A more immediate problem for the Okanagan fruit farmer is the competition from American producers. The Federal Task Force on Agriculture in 1969, was quick to identify the problem:

"The Canadian harvest is very much limited to the June-October period and the industry is in competition with American fruits and vegetables harvested over a much longer season. The earlier United States product sold in Canada brings higher prices to American farmers and takes the edge off Canadian Consumer appetites. It is common for the early harvest season of a Canadian crop to coincide with mid-season or even end-of-season harvesting in the United States."⁸⁵

The Washington fruit producers cause B. C. Tree Fruits Ltd. to lower their prices by selling below production cost to maintain their earlier portion of the market, available to them due to the longer growing season. This tactic was evident during the summer of 1973, causing some dissident cherry growers by-passed the central selling agency, B. C. Tree Fruits in an attempt to recover their production costs.⁸⁶ The Federal government imposed a temporary surtax which brought the Washington State price to the British Columbia

⁸⁴J. R. Burns, "Apples", Canadian Farm Economics, (April 1972), Vol. 7, No. 1, p. 66.

⁸⁵Report of the Federal Task Force on Agriculture, op. cit. p. 213.

⁸⁶M. Finlay, "Low-priced U. S. Imports Hit B. C. Cherry Growers", The Vancouver Sun, (June 27, 1973), p. 23.

level.⁸⁷

These two major problems of over-production on the international level and unrestrained competition cannot be solved by any one action of either the Federal or Provincial governments.

However, many people in the industry feel that in order for it to survive it must be made economic..... in spite of the impending world surplus of the major tree-fruit - apples. A feasible way this might be approached would be through government price support.⁸⁸

Whether the support be a realistic floor price for tree-fruits, foreign or domestic sold in Canada, or by government subsidy, is not within the industry to decide. The Federal government is rich with experience in price stabilization with such commodities as wheat, lamb, bacon and pork, dairy products, sugar beets, the list is endless.⁸⁹ Most people involved in the tree-fruit industry feel this type of program is needed since the major tree-fruit problems are international.

A permanent solution to the economic woes of the British Columbia fruit grower will only be achieved through co-operation with governments on all levels, rather than by

⁸⁷"Cherry Fee Levied", The Vancouver Sun, (June 30, 1973), p. 1.

⁸⁸"Price Gap Almost Incredible", op. cit. p. 5.

⁸⁹Ibid.

confrontation.

The Regional Problems

As late as 1900 the area from Penticton to the border⁹⁰ almost without exception was a cattle-raising area. Orchard plantings were few and scattered in the extreme north or south of the Okanagan Valley, with the "Okanagan Land Boom" of the early 1900's.⁹¹

The land boom was conducted with great thoroughness by many individuals and land companies. They promoted the valley in such a way as to induce families to transplant themselves from the United Kingdom and other parts of Canada.

The facts on which the Okanagan Valley was sold were:

(1) The successful experience of the Washington and Oregon growers, which gave fruit-growing the necessary impetus to make it an attractive career. The Okanagan Valley was, and still is fantastically beautiful, with vistas and clear blue lakes. The climate was moderate in the winter and for the most part, not excessively hot in the summer.

(2) The valley was covered with Ponderosa Pine and bunch-grass which meant that it was not necessary to clear

⁹⁰See Figure 1.

⁹¹MacPhee, op. cit. p. 20.

forests before planting an orchard. The soil was very fertile when irrigated and water seemed plentiful from the many streams running into the Okanagan Lake water system.

(3) The possibility of raising soft⁹² tree-fruits as well as apples and pears looked encouraging due to soil type and climate.

(4) The valley was relatively closed and consequently free from the Eastern Canadian problems of apple-scab. The codling moth appeared on Vancouver Island in 1890 but did not become a problem until 1925 in the Okanagan Valley.

(5) The Governor-General, Lord Aberdeen, who was wealthy and could have the advice of the world's best horticulturists, planted 200 acres each near the two communities of Vernon and Kelowna.⁹³

With this kind of data to promote the tree-fruit industry, the land companies and developers were able to attract a population of near 30,000 people within fifteen years of the turn of the century. Some land companies had not tried to mislead the people, and had helped them to make a living through the first few years after planting the orchards.

However, many land promoters omitted to tell the

⁹²Soft tree-fruits are those such as apricots, peaches, cherries, plums.

⁹³MacPhee, op. cit. p. 21-22.

land buyers a number of factors which might have affected decisions to move to the Okanagan and some of the effects are still felt over seventy years after. These factors were:

(1) The area was remote from any large or growing centre of population. Therefore, the product was a long way from any potential market. The Pacific Coast was a long arduous two hundred and fifty mile journey over the Coastal Mountains. The volume of tree-fruit that was to be grown would have to have a portion of the fruit markets in the Prairies, Eastern Canada and the United Kingdom. Luckily, there was no deluge of fruit, merely a gradual increase in production until the marketing problem became acute.

(2) The land promoters had or gave no advice as to the suitability of varieties of fruit for the Canadian Market. Consequently, the choice of varieties was based on what had been grown in England, Eastern Canada and the Washington-Oregon areas. As late as 1927 one packinghouse in Vernon received 53 varieties of apples. The Provincial Government had to appoint a number of committees of experienced orchardists to advise on appropriate rootstocks to help cut down on varieties.

(3) Land was not cheap at the time of the land boom. Land values increasing from one to one thousand dollars an acre in the Okanagan Valley between 1900 and 1910. Remembering that prices were in terms of a currency worth much more than the 1974 dollar, there is little doubt that these

artificially inflated land values has been a burden on the industry for seventy years.

(4) Many of the irrigation systems provided by the land developers would prove to be inadequate when the fruit trees reached full maturity.

(5) The most blatant oversight on the promoters part was the failure to tell the prospective growers that there had been heavy frosts every seven years on the average.⁹⁴

This list of factors outlines the majority of the problems from which fruit growers still suffer nearly three-quarters of a century later - namely, cost of land, cost of operation, suitability of varieties, proximity to large centres of population, capital costs of irrigation, costs of marketing, transportation and damage by frost.

Technology - Is the Tree-fruit Industry of British Columbia Keeping Pace?

The realization of the fact that most of the present ills of the British Columbia tree-fruit industry existed in the Okanagan Valley nearly seventy-five years ago raises the question of how has technology been adapting to these problems.

Of course, distance from large concentrations of population is not something that technology can improve

⁹⁴Ibid. p. 23-24.

directly, except by improving the modes of transportation. Likewise, the climate has been a factor which the orchardists must live with. Figure 5, "MINIMUM ANNUAL TEMPERATURES, PENTICTON AIRPORT 1958 to 1971" provided the evidence that winter extreme temperatures were a problem in the Okanagan.

Due to the ability of apple-trees to withstand lower winter temperatures than other kinds of fruit-trees, apples have long been considered the "backbone" of the tree-fruit industry in British Columbia. However, in years of severe frost such as 1969, even the apple crop suffered badly.

The Okanagan Valley is on the northern fringe of the apple growing region of North America and the hazard of a severe winter freeze or late spring frost is always present. As already mentioned, serious winter injury has occurred at a frequency of once every seven or eight years. This would suggest that even within the present growing areas of the Province only the most climatically favoured locations should be selected for apple or tree-fruit growing.⁹⁵

The field of horticulture has made great advancements since the early days of fruit-growing. Prior to the 1960's most apple-trees planted in British Columbia orchards were seedling rootstocks grown from apple-seed obtained from

⁹⁵J. E. Swales, Commercial Apple-growing in British Columbia, British Columbia, Department of Agriculture, Horticultural Branch, Victoria, B.C., p. 11.

processing plants. Today, most of the apples trees being planted are grown on growth-controlling, vegetatively propagated rootstocks. Most newly planted apple-trees consist of two distinct parts, rootstock and scion variety. In some instances, particularly with the more tender apple varieties, it is desirable to have trees with a winter-hardy trunk or framework. Wood of a winter-hardy variety is used for that purpose and if it differs from the rootstock it is referred to as an intermediate stock. Consequently, trees with an intermediate stock contain three distinct sections - rootstock, intermediate stock and scion variety.⁹⁶

Scientists have been striving to develop the "ideal" rootstock on which the desired variety of scion can be grafted. The ideal rootstock must have the following desirable characteristics:

(1) It should provide some degree of vigour control over the scion variety without adversely affecting productivity or longevity of a tree.

(2) It should promote early bearing and heavy production of the scion variety.

(3) It should be winter-hardy.

(4) It should provide good anchorage for a tree.

(5) It should be resistant to diseases.

(6) It should be easily propagated.⁹⁷

⁹⁶Ibid. p. 16.

⁹⁷Ibid. p. 23.

No rootstock in present use possesses all these characteristics, however it is feasible that one will be developed in the near future.

Another horticultural practice which has been used extensively in the Okanagan Valley is called "topwork". This technique refers to the grafting of scions of more desirable strains onto the tops of producing trees. Today, with ideas changing rapidly as to tree size and spacing, topwork has diminished in importance in the renovation of a tree-fruit orchard.

The emphasis in the Okanagan apple industry has been to top-quality and specialized varieties which have the comparative economic advantage over competitive markets. Consequently, the British Columbia orchardists have been shifting away from the McIntosh variety to Golden and Red Delicious strains. The reasons for the shift were two-fold, firstly because the Eastern Provinces serve their market with the McIntosh variety and have along with Michigan State moved into the Winnipeg market traditionally a British Columbia stronghold, and secondly the McIntosh apples does not transport well.

Since British Columbia moves approximately 85% of its production outside the province, a great deal of research in the Okanagan Valley Canada Agriculture Research Station at Summerland has been oriented to varieties which do not bruise easily and preserve well in controlled atmosphere

storage.⁹⁸ Towards this end they developed the Spartan variety which is a cross between the Newtown and the McIntosh.⁹⁹ Unfortunately problems of "Spartan breakdown" in controlled atmosphere storage have caused widespread loss of revenues to growers because of the high cull counts believed to be due to low calcium content in the variety.¹⁰⁰

The Summerland Research Station has been conducting research into the "Spartan breakdown" problem and believe that the calcium deficiency in the apple can be rectified by dipping the bins of apples in a calcium chloride solution at the packinghouse before putting them in storage.¹⁰¹

Other kinds of research at Summerland involve the use of chemicals such as "Ethrel" which activates the hormones in the tree that cause fruit loosening. This chemical along with the "Algar" which has a ripening effect on apples could easily allow certain varieties to be harvested a couple weeks ahead of the naturally ripening varieties.¹⁰²

⁹⁸K. Colluer, "Canadian Fresh Apple Domestic Trade", The British Columbia Orchardist, (June 1971), Vol. 11, No. 9, p. 23.

⁹⁹Swales, op. cit., p. 22.

¹⁰⁰J. Mason, "Big Research Program for Spartan Apple", The British Columbia Orchardist, (May 1970), Vol. 10, No. 8, p. 8.

¹⁰¹J. Mason, "Calcium Chloride Dips for Spartan Breakdown", The British Columbia Orchardist, (January 1974), Vol. 14, No. 11, p. 16.

¹⁰²N. E. Looney, "Ethrel - A Problem or Opportunity?", The British Columbia Orchardist, (Apple 1973), Vol. 13, No. 6, p. 6.

This might make the chemically treated apples more competitive with the early ripening apples from the Oregon and Washington State areas.

A great deal of research has also been done at Summerland in connection with mechanical harvesting of apples. Unfortunately, the bruising and skin puncture problem is a long way from being solved.¹⁰³ If however, the predicted changes in consumer behaviour toward apple consumption becomes true, with a marked increase in processed apple consumption, the importance of a mechanical harvester even with the damage problem is evident.¹⁰⁴ Since slightly damaged apples are processed anyway, there would be no deterioration in quality of the product if a mechanical harvester were used.

In the next few years the scientists at Summerland feel that a great many specialized types of harvest aids will be devised. There will be no one design which will have universal application. However, growers who supply harvest aids for their pickers will have the least trouble in obtaining and holding an adequate supply of harvest labor.¹⁰⁵

The major technological advancement in the industry has been the establishment of dwarf tree-fruit orchards. A

¹⁰³A. D. McMechan, "New Apple Harvester Calls for Pick and Toss", The British Columbia Orchardist, (January 1974), Vol. 14, No. 11, p. 14.

¹⁰⁴Burns, "The Canadian Apple Industry", op. cit., p. 17.

¹⁰⁵McMechan, op. cit., p. 15.

dwarf orchard is an orchard consisting of growth-controlled trees which have a mature height of between 7 and 12 feet. The trend toward dwarf orchards has been accelerated by the general lack in supply of good labor, and high labor costs on conventional orchards.

In Dr. Fisher's study of high density plantings at Summerland Research Station he found if he included land values, the added cost of a new permanent set irrigation system, cost of trees and planting, net operational loss due to tree removal, plus 7 percent interest on initial capital costs and on operational losses, the break-even point was four years if the land cost between \$500 to \$1000 per acre and 5 years if the land cost \$2300 per acre.¹⁰⁶ Despite the higher capitalization costs of the high density grower on a per acre basis, he would seem to be far ahead of the low density grower, both from the standpoint of reaching full bearing years earlier, plus the much higher potential yields per acre with high tree density.

Dr. D. W. McKenzie's research on the high density orchards of New Zealand substantiated Dr. Fisher's findings concerning the profitability of high density plantings.¹⁰⁷

¹⁰⁶D. V. Fisher, "High Density Plantings for High Profits", The British Columbia Orchardist, (June 1969), Vol. 9, No. 9, p. 13.

¹⁰⁷D. W. McKenzie, "An Assessment of the Economic Efficiency of Semi-Intensive Apple Orchards in Hawkes Bay", Orchardist of New Zealand, (1970), Vol. 43, pp. 92-94.

The one qualification in Dr. McKenzie's work was that semi-dwarf plantings were the most economical of all the growth-controlled strains. The added profitability from all types of high density apple orchards results from the lowering of pruning and picking costs while increasing the yield per acre, as reported in both studies.

Consequently, one would expect that in this era of poor tree-fruit income and labor problems, that there would be a much more determined swing toward high-density orchards in the Okanagan Valley.

Unfortunately, Canadian orchardists have been relatively slow to adopt high density plantings. In British Columbia only 28 percent of the orchard acreage was in high density orchards. This was approximately the same percentage as Washington State. However Michigan has 60% and Ohio 50% of their orchards planted in this manner, whereas Ontario, Quebec and Nova Scotia lag behind with 2.6, 1.6 and 10.5% in high density orchard use respectively.¹⁰⁸

Since the adoption of this new system of orcharding would involve substantial new investment as well as the removal of producing trees - it is not really all that unusual that the Okanagan orchardists are slow to change.

¹⁰⁸D. V. Fisher, "An Assessment of the Present Status of High Density Orchards", in Report of Work Planning Meeting on High Density Orchards, November 23-24, 1972 Central Experimental Farm, Canada Agriculture, Research Branch, Ottawa, p. 25.

The Average Income of the Orchardist in the
Okanagan Valley

The orchardists in the Okanagan Valley have always been climatically divided into the north and south. The orchardists in the north grow very little soft-fruit, especially peaches, apricots and plums due to the more severe winters. The division between north and south in the Okanagan Valley for the purpose of this report has been assumed to be the east-west line halfway between Peachland on the south and Westbank to the north. This division was adopted since it was used in Arendt's study.

Even though Tumblemoon Ranch was in the southern portion of the Okanagan Valley its distribution of orchard acreage closely resembled the average northern distribution, where 84% of the acreage was in apple production.¹⁰⁹

However, since the Arendt study is an average of 28 orchards in the north and 29 orchards in the south, the data determined for the south has been used for comparison.

The average current receipts per farm in 1970 for the South Okanagan was \$17,227 and the average for the whole valley was \$17,389.¹¹⁰ The total current receipts for the same year at Tumblemoon Ranch was \$10,332.68.¹¹¹ Since the

¹⁰⁹Arendt, op. cit., Table 4, p. 14.

¹¹⁰Ibid., Table 9A, p. 20.

¹¹¹Appendix B, 1970 Income Statement.

Income Statements were based on the taxation year it is probably more valid to look at the crop returns on Table 3. For 1970 the total crop receipts were \$21,598.17 or \$591.73 per bearing acre.¹¹² This figure compares with \$1,141 per bearing acre in the South and \$907 in the North Okanagan.¹¹³

When using Arendt's study as a comparison the one severe limitation of this study must be realized. The study automatically excluded any orchard operation which had no intensive or high density apple plantations.¹¹⁴ Consequently, the study would be biased towards the more economic and progressive orchards in the valley, thus the reason for the higher average returns.

Although Tumblemoon had some 10.7 acres of high density apple plantations they were not in production in 1970.¹¹⁵ This is another reason for the poor showing of Tumblemoon Ranch relative to the Arendt study.

For the sake of curiosity the net annual income of the average orchardist in the 1970 study has been compared to the Tumblemoon Orchardist. The net income received by the

¹¹²Table 3, "TOTAL INCOME BY CROP YEAR COMPARED WITH INCOME BY TAXATION YEAR", total 1970 crop income divided by 36.5 bearing acres.

¹¹³Arendt, op. cit., Table 9B, p. 21.

¹¹⁴Ibid. p. 1.

¹¹⁵Table 1, "LAND USE AND LAND USE CHANGES. TUMBLEMOON RANCH, 1946 - 1973."

average orchardist in all of the Okanagan Valley was \$-620, before depreciation expense, whereas for the South Okanagan the net income was \$722, both based on bearing acres.¹¹⁶ The Tumblemoon Ranch operator had a net income of \$-230.54 before depreciation expense and \$-307.42 after depreciation, on the basis of 36.50 bearing acres.¹¹⁷

Tumblemoon Ranch was not the most economical of orchards but it was a typical case regarding operating loss, and consequently can be considered a representative commercial tree-fruit operation in the Okanagan Valley.

The Economic Unit

The economic unit by definition from the Royal Commission on the Tree-fruit Industry of British Columbia, was the minimum volume of production required to provide a grower with the income he wishes. Or better still the minimal number of trees which year in and year out will meet the orchardist's standard of living.¹¹⁸

In 1958, ten acres was deemed to be the minimum size for commercial apple production.¹¹⁹ Those people operating orchards on less than 10 acres were considered

¹¹⁶Arendt, op. cit. Table 15A, p. 29.

¹¹⁷Appendix B, op. cit.

¹¹⁸MacPhee, op. cit., p. 782.

¹¹⁹Ibid. p. 778.

part-time growers since they could not expect to live off their acreage. Their survival in the industry depended on them finding off-farm employment.¹²⁰

The data in the Royal Commission, based on a 1955 orchard survey revealed that in excess of 70% of the Okanagan's 3,599 growers were operating on 10 acres or less, with 51% operating on 7 1/2 acres or less.¹²¹ This state of affairs was one of the major discoveries of the Royal Commission.

Comparing the average orchard size of Arendt's more progressive orchardists to those in the 1955 survey, it can be seen that her 23.5 acre average size¹²² put her orchardists group in the top eight percent of the earlier Okanagan survey class.¹²³ This, of course, does not necessarily mean that this is the case in 1974 but her data very likely represents the above-average orchardist in the Okanagan. Yet, the average orchardist in her study still showed a negative income of \$-620.¹²⁴

Even in Arendt's group of progressive orchardists 32 percent of the sample had non-farm income in excess of

¹²⁰Ibid., p. 776.

¹²¹Ibid., p. 78.

¹²²Arendt, op. cit., Table 4, p. 14.

¹²³MacPhee, op. cit.

¹²⁴Arendt, op. cit., Table 15A, p. 29.

their 1970 family farm income.¹²⁵ This survey substantiates Dean MacPhee's conclusion that part-time employment would be necessary for many people in order that they survive in the tree-fruit industry.¹²⁶

The part-time orchardist in many cases in recent years has sold his property for residential use or merely lives there himself with fruit growing a hobby. Consequently, the quality of fruit has usually deteriorated and arrives at the packinghouse in small quantities, thereby causing utilization problems for the packinghouse and higher operating costs. Unfortunately, the higher costs are levied against all orchardists who used that packinghouse. Often the prospects of little or no return to the casual orchardist through a packinghouse forces him to resort to bootlegging his crop. He could do this by selling a truckload of fruit in Vancouver or by selling the whole crop on the trees for a few hundred dollars - enough to pay the taxes, and the buyer would bootleg the crop.¹²⁷

Consequently, Mr. Pederson suggested a minimum size for commercial tree-fruit orchards be adopted and the small part-time orchardists could group together by management

¹²⁵Ibid. p. 3.

¹²⁶MacPhee, op. cit., p. 776.

¹²⁷A. Pederson, "Sounding Board", The British Columbia Orchardist, (June 1973), Vol. 13, No. 8, p. 6.

contracts to achieve the minimum economic unit size.

In this way some part-time orchardists would not penalize other producers by provision of sub-standard fruit and the part-time orchardists would still be able to produce commercially if they so desired.

The solution to the problem of economic unit size will have to be solved by the British Columbia Fruit Board through the use of existing or new legislation.

The Tree Fruit Marketing Organization in British Columbia

Under the terms of the Natural Products Marketing (British Columbia) Act¹²⁸ and the Agricultural Products Marketing Act of Canada,¹²⁹ the fruit-growers of the interior of British Columbia have been able to control the marketing of their products. The control is vested with the British Columbia Fruit Board. It has the responsibility of revising and enforcing the marketing regulations as established by legislation.¹³⁰

The British Columbia Fruit Board is composed of three orchardists who are elected by the members of the British Columbia Fruit Growers Association at their annual

¹²⁸Natural Products Marketing (British Columbia) Act, op. cit.

¹²⁹Agricultural Products Marketing Act (Canada), op. cit.

¹³⁰MacPhee, op. cit. p. 713.

convention. The Fruit Board designated B. C. Tree Fruits Ltd. as the sole agency for marketing of British Columbia tree-fruits grown in the designated fruit-growing areas of British Columbia.¹³¹ Through this agency all fruit produced in the interior of British Columbia must be sold, except for that fruit sold locally by the growers.

The Fruit Board has jurisdiction over the transportation of commercial volume of tree-fruits from the growing areas. Movement of fruit without the Board's authorization is illegal.

Virtually all apples marketed by B. C. Tree Fruits Ltd. are washed, polished, sorted, packed, and stored in modern packinghouses which are equipped with refrigerated cold storage rooms and in some instances, controlled atmosphere storage rooms. Most packinghouses are co-operatively owned by the growers that supply them with the fruit. The packinghouses hold the fruit until B. C. Tree Fruits Ltd. authorize its marketing and destination.

Since British Columbia is remote from most of its markets, B. C. Tree Fruits Ltd. encourages Okanagan growers to concentrate on high-quality tree-fruits which receive premium prices.¹³² The strength in the British Columbia marketing system comes from its ability to control the supply

¹³¹Ibid., p. 717.

¹³²Swales, op. cit., p. 7.

of the products of the whole tree-fruit growing industry. Consequently, each year B. C. Tree Fruits Ltd. disposes of all its fruit.

In recent years, the returns to the growers for their fruit has been marginal to say the least. As a result there have been accusations that B. C. Tree Fruits Ltd. was "covering up for and confiding in the wholesaler rather than the farmer".¹³³

The whole situation in the summer of 1973 was ignited by an exceptionally good cherry crop in Washington State. Their growing season allowed them to market their crop in British Columbia at \$8 per crate for a week and a half before the British Columbia crop came to market. As soon as the Okanagan crop was marketed the Washington State growers lowered their price to \$5.50 per crate. The U. S. growers were selling their "surplus" crop at distress prices.

B. C. Tree Fruits Ltd. was forced to lower their price to \$6.95 per crate which was the break-even point for Okanagan growers.¹³⁴ Luckily, the Federal Government imposed a surtax on cherries imported into Canada to bring the minimum price per crate of twenty pounds to \$6.60,¹³⁵ so B. C. Tree

¹³³N. Adams, "Dissident Fruit Growers Criticize Provincial Fruit Marketing Agency", The Vancouver Sun, (June 15, 1973), p. 90.

¹³⁴Finlay, op. cit., p. 23.

¹³⁵"Cherry Fee Levied", op. cit. p. 1.

Fruits retained its portion of the market.

However a group of dissident fruit growers still felt that central selling was not giving the grower a fair price for the crop and consequently organized a caravan of trucks to transport their cherries to the Vancouver market.¹³⁶ This was in direct violation of the powers vested in the B. C. Fruit Board and a resulting legal conflict ensued.¹³⁷

The whole affair was an excellent method of bringing the plight of the orchardist to public attention, but end result was a mail-ballot vote to either accept or reject the compulsory "central desk" selling of B. C. Tree Fruits Ltd. The vote held on December 12, 1973, resulted in a mandate for the continuation of the present marketing system. The vote was 62% in favour of the British Columbia Fruit Growers Association and as a result the Agriculture Minister David Stupich declared that government discussions concerning the tree-fruit industry would be with only the BCFGA and not any rival organizations.¹³⁸

The victory over the dissident fruit growers might be one of the few battles that BCFGA and the B. C. Fruit

¹³⁶"Fruit Growers to Challenge Act", The Vancouver Province, (July 4, 1973), p. 7.

¹³⁷"Fruit Board Files Suit Against Rebel Growers", The Vancouver Sun, (July 19, 1973), p. 14.

¹³⁸"It is a Mandate", The British Columbia Orchardist, (January 1974), Vol. 14, No. 11, p. 5.

Board are able to win the next few years. Even with a unified association and marketing board the future is not bright. Production costs are high and now, with a very difficult export situation, the British Columbia grower is faced with a very grave future.

No matter how good the sales organization or the quality of the fruit, the British Columbia apple industry, if forced to sell more of its product in Eastern Canada, will be faced with a tremendous financial problem by virtue of its geographical position relative to the population centres of the east.

The United States market will become increasingly difficult to enter and maintain as production increases in the Pacific Northwest. The tree-fruit industry of British Columbia is at a stage in its history when it might be hard-pressed to meet competition at a return that will permit its growers to exist.

CHAPTER IV

WILL SOCIETY PAY ITS DEBT?

An orchardist summed up the dilemma which the agricultural land freeze created in the Okanagan, by the following analogy:

"Locking the stable door before the horse is stolen always makes good sense, but putting the cart before the horse does not make good sense and in moving to lock the farmer in before ensuring him economic sufficiency is indeed putting the cart before the horse"¹³⁹

The NDP Government's solution to the problem of farmland loss was indeed like putting the "cart before the horse". The real problem in the Okanagan was not the loss of farmland as much as it was the loss of an established industry.

Under present legislation the orchardist must sell his land for agricultural use. This land use, under the present economic conditions, can be aptly described as subsistent. Consequently, he now has lost the "inherent value" of a higher and better use of this land.

The problem of land values in the Okanagan Valley is not a new one. At the time of the Okanagan Land Boom between 1900 and 1910 land values increased from \$1 to \$1000

¹³⁹"People First Philosophy Should Apply to Farmer", The British Columbia Orchardist, (February 1973), Vol. 13, No. 3, p. 6.

per acre of orchard land.¹⁴⁰ All the data contained in the Royal Commission Report of 1958 based its land values on market transactions. In the Penticton area, the commissioner believed that capital gain was the real reason for a great deal of the transactions. In that area one parcel of land of 4.76 acres sold in 1948 for \$6,750, in 1950 for \$11,200 and in 1955 for \$13,700.¹⁴¹ On a per acre basis this was \$1,418 in 1958, \$2,353 in 1950 and \$2,878 in 1955. This showed a better than 100% increase in land value in seven years. Granted, this was an extreme case, but it exemplifies the problem which young orchardists entering the business were required to face.

Using the 1958 land value figures¹⁴² from the Royal Commission Study, and applying them to the acreage of Tumble-moon Ranch as it was when sold under land use contract, the agricultural value was surprisingly high. The land value was \$187,450. This value was broken up into 47.2 acres of orchard at \$1,708 per acre or \$80,618. The remaining 242.8 acres was valued at \$440 per acre or \$106,832.

Consequently in 1956, the land sold in 1973 under land use contract was worth \$187,450. If the orchardist had been offered \$200,000 for it as agricultural land in the

¹⁴⁰MacPhee, op. cit., p. 24.

¹⁴¹Ibid., p. 85.

¹⁴²Ibid., Table 8, p. 84.

summer of 1973, he would have gladly forgotten about the subdivision. But \$200,000 would have been too high for the land as agricultural land, especially in light of the past net income of its orchard operations.

The orchardists have been paying a market value for their land, which includes some latent value to convert that land to a higher and better use. Today, after passage of the Land Commission Act, the value of their land does not contain that added latent value.

This loss of latent value brings up the question of who is paying the cost of "Farmland Reserves". Is society paying for the preservation of farmland? The answer is no. In the Okanagan the grower is paying by being forced to stay in an industry which is not economic, and has lost its latent value to develop.

An Okanagan grapegrower expressed a common view towards the land freeze:

"As part of society I am very willing to share the cost with society of preserving this land, but as a land owner I cannot afford this luxury on my own. ... Society when they want something they buy it, they don't steal or sneak it away."¹⁴³

It is unfair that the orchardist already in trouble financially should be forced to stay in the business. The solution to the loss of agricultural and orchard land in the

¹⁴³"We Preserved The Land...", The British Columbia Orchardist, (February 1973), Vol. 13, No. 3, p. 18.

Okanagan Valley could have been better achieved by making the industry economic in the first place.

If the orchardist were making a good living and the operations were consistently profitable, except for the occasional frost, the problem of orchard preservation would have all but disappeared. It would not have been necessary to have a blanket control, but simply planning legislation that would require any move to acquire orchard land for other than agriculture purposes to be judged on its merits. There probably would have been few applications for rezoning because:

"If the orchard acre can again become profitable then it would be shortsighted on the part of the owner to sell what should be a sound profit making operation for a short term gain. It would be something like selling blue chip stocks for a quick profit on a market fluctuation."¹⁴⁴

Unfortunately, the land freeze is a reality and its effect on land use change should be obvious for the next year or so with no land being converted from orchards to other more intensive uses. If however, the tree-fruit industry in British Columbia is forced to stand on its own merit, it will only be two years at the most before the small heavily mortgaged fruit grower will be forced off the land if he does not have another source of income. This would have occurred without the agricultural land freeze,

¹⁴⁴"People First Philosophy...", op. cit.

but now the Land Commission would be able to buy the land at the new agricultural land price. Invariably, the price would be lower than cost to the grower since the latent value of development would be lost. Hopefully, the Land Commission will pay the "Market value" so that the grower will not be required to subsidize society in the preservation of agricultural land.

The best solution for the Province and the tree fruit industry would be to revitalize the industry. The means to this end would probably be through a cost of production subsidy with the necessary ability to group small orchardists into economically sized farms, possibly as small co-operatives. The Land Commission could then regulate the change in land use of isolated and uneconomical orchards.

If the Tree Fruit Industry is not made economic the growers will be paying a high price for farmland reserves. But if the necessary help from the NDP government is forthcoming society will be paying part of its debt to the fruit growers for preserving their land.

Land use change under the Land Commission will be more orderly. However, those who are allowed to sell their land for development will obtain greater profits than before the freeze, as was the case on Tumblemoon Ranch. The agricultural land freeze and the Land Commission are forces in the planning environment which have to be accepted and will possibly result in the orderly change in land use in the

Okanagan Valley.

Unfortunately, the single major factor affecting the viability of the Tree-Fruit Industry in the Okanagan Valley is weather. Regardless of price subsidy or the grouping of small orchards into management groups the problem of severe weather still exists. It is time that the Industry evaluated this problem critically and allowed the market system to eliminate those orchards which were consistently affected by frost.

However, a commitment of the Land Commission to aid orchardists located in climately suitable areas to accumulate adjacent land is needed. In this way there would be fewer orchardists, but those left would be larger, more economic and much less at the mercy of fate.

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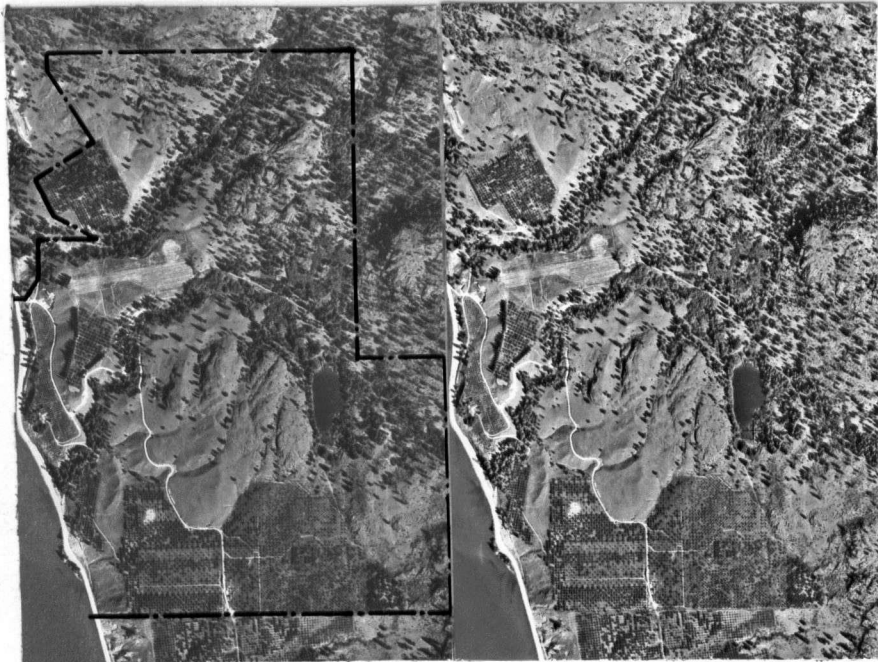
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Appendix A

STEREOSCOPIC PAIR OF AERIAL PHOTOGRAPHS
OF TUMBLEMOON RANCH

SOURCE : Aerial Photographs BC4143-094
and BC 4143-095

Appendix B

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1958

Income:

Proceeds of Fruit	\$ 20,146.30	
Interest (from Co-ops)	240.78	
Sun Rype Products Ltd.	23.33	
Government Apple Subsidy	598.86	
Custom Work	2,280.08	
Rental Income (Pasture)	---	
Timber Sales	---	
Crop Assistance	---	\$ 23,289.35

Expenses:Overhead Costs

Taxes and Water	\$ 640.37	
Telephone, Light & Power	1,198.94	
Insurance-Orchard-Dwelling	130.99	
'Other' Interest Charges	751.73	
Licenses and Dues	---	
Accounting and Legal	---	\$ 2,722.03

Pre-harvest Costs

Fertilizer & Spray Expense	1,749.94	
Repairs, small Tools	607.71	
Gas, Oil - Equipment	1,138.90	
Repairs, Equipment	1,811.30	
Bank Charges (Operating)	2,129.38	
Wages & Benefits	573.50	
Other (Postage, stationary)	---	\$ 8,010.73

Harvest Costs

Wages & Benefits	\$ 10,896.51	
Hauling	---	
Packing House Charges	---	
Custom Work, Equip. Rentals	---	
Car Expense (Gas & Oil)	---	\$10,896.51

Extraordinary Costs

Trees	---	
Loss Co-op Shares	---	\$ 21,629.27

Net Profit or Loss (Before Depreciation)	\$ 1,660.08
Depreciation Expense	\$ 2,950.55
Net Profit or Loss (After Depreciation)	\$ (1,290.47)

SOURCE: Income Tax Returns; Profit and Loss Ledgers from Orchardist's files. Format for Expenses from: R. B. Tukey, "Implications of Economics on Orchard Management", Proceedings of the First BCFGA Horticultural Conference, The 1969 APPLE FORUM, (November 24, 25, 1969), Penticton, B. C. P. 37.

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1959

Income:

Proceeds of Fruit	\$ 12,718.66	
Interest (from Co-ops)	245.31	
Sun Rype Products Ltd.	61.22	
Government Apple Subsidy	---	
Custom Work	---	
Rental Income (Pasture)	---	
Timber Sales	---	
Crop Assistance	---	\$ 13,025.19

Expenses:Overhead Costs

Taxes and Water	\$ 183.06	
Telephone, Light & Power	855.90	
Insurance-Orchard-Dwelling	60.50	
'Other' Interest Charges	760.50	
Licenses and Dues	---	
Accounting and Legal	---	\$ 1,859.96

Pre-harvest Costs

Fertilizer & Spray Expense	1,104.83	
Repairs, small Tools	215.96	
Gas, Oil - Equipment	1,092.82	
Repairs, Equipment	1,484.15	
Bank Charges (Operating)	2,229.89	
Wages & Benefits	391.09	
Other (Postage, stationary)	22.83	\$ 6,541.57

Harvest Costs

Wages & Benefits	\$ 7,430.80	
Hauling	---	
Packing House Charges	---	
Custom Work, Equip. Rentals	---	
Car Expense (Gas & Oil)	---	\$ 7,430.80

Extraordinary Costs

Trees	---	
Loss Co-op Shares	---	\$ 15,832.33

Net Profit or Loss (Before Depreciation) \$ (2,807.14)

Depreciation Expense \$ 2,235.33

Net Profit or Loss (After Depreciation) \$ (5,042.47)

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1960

Income:

Proceeds of Fruit	\$ 14,168.47	
Interest (from Co-Ops)	249.25	
Sun Rype Products Ltd.	21.69	
Government Apple Subsidy	---	
Custom Work	---	
Rental Income (Pasture)	---	
Timber Sales	---	
Crop Assistance	---	\$ 14,439.41

Expenses:Overhead Costs

Taxes and Water	\$ 604.42	
Telephone, Light & Power	1,144.27	
Insurance-Orchard-Dwelling	196.72	
'Other' Interest Charges	1,098.53	
Licenses and Dues	81.90	
Accounting and Legal	---	\$ 3,125.84

Pre-harvest Costs

Fertilizer & Spray Expense	1,947.19	
Repairs, small Tools	1,037.23	
Gas, Oil - Equipment	425.87	
Repairs, Equipment	723.07	
Bank Charges (Operating)	2,118.77	
Wages & Benefits	414.85	
Other (Postage, stationary)	5.03	\$ 6,672.01

Harvest Costs

Wages & Benefits	\$ 7,882.25	
Hauling	11.69	
Packing House Charges	---	
Custom Work, Equip. Rentals	---	
Car Expense (Gas & Oil)	---	\$ 7,893.94

Extraordinary Costs

Trees	---	
Loss Co-op Shares	---	\$ 17,691.79

Net Profit or Loss (Before Depreciation)	\$ (3,252.38)
Depreciation Expense	\$ 1,985.63
Net Profit or Loss (After Depreciation)	\$ (5,238.01)

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1961

Income:

Proceeds of Fruit	\$ 25,723.01	
Interest (from Co-ops)	---	
Sun Rype Products Ltd.	---	
Government Apple Subsidy	---	
Custom Work	58.00	
Rental Income (Pasture)	---	
Timber Sales	---	
Crop Assistance	---	\$ 25,781.01

Expenses:Overhead Costs

Taxes and Water	\$ 915.65	
Telephone, Light & Power	1,198.54	
Insurance-Orchard-Dwelling	255.35	
'Other' Interest Charges	854.07	
Licenses and Dues	22.00	
Accounting and Legal	37.50	\$ 3,283.11

Pre-harvest Costs

Fertilizer & Spray Expense	2,471.52	
Repairs, small Tools	2,371.05	
Gas, Oil - Equipment	1,019.90	
Repairs, Equipment	---	
Bank Charges (Operating)	1,648.24	
Wages & Benefits	504.01	
Other (Postage, stationary)	14.00	\$ 8,028.72

Harvest Costs

Wages & Benefits	\$ 10,296.14	
Hauling	7.49	
Packing House Charges	---	
Custom Work, Equip. Rentals	---	
Car Expense (Gas & Oil)	---	\$10,303.63

Extraordinary Costs

Trees	\$ 535.25	
Loss Co-op Shares	---	\$ 535.25 \$22,150.71

Net Profit or Loss (Before Depreciation) \$ 3,630.30

Depreciation Expense \$ 1,996.77

Net Profit or Loss (After Depreciation) \$ 1,633.53

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1962

Income:

Proceeds of Fruit	\$ 25,777.56	
Interest (from Co-ops)	---	
Sun Rype Products Ltd.	---	
Government Apple Subsidy	---	
Custom Work	114.00	
Rental Income (Pasture)	---	
Timber Sales	---	
Crop Assistance	---	\$ 25,891.56

Expenses:Overhead Costs

Taxes and Water	\$ 658.83	
Telephone, Light & Power	1,302.66	
Insurance-Orchard-Dwelling	922.20	
'Other' Interest Charges	851.71	
Licenses and Dues	66.84	
Accounting and Legal	30.50	\$ 3,832.74

Pre-harvest Costs

Fertilizer & Spray Expense	1,875.65	
Repairs, small Tools	2,188.01	
Gas, Oil - Equipment	989.98	
Repairs, Equipment	---	
Bank Charges (Operating)	1,565.88	
Wages & Benefits	603.30	
Other (Postage, stationary)	13.00	\$ 7,235.82

Harvest Costs

Wages & Benefits	\$ 11,462.73	
Hauling	1,166.45	
Packing House Charges	---	
Custom Work, Equip. Rentals	---	
Car Expense (Gas & Oil)	---	\$12,629.18

Extraordinary Costs

Trees	---	
Loss Co-op Shares	---	\$ 23,697.74

Net Profit or Loss (Before Depreciation) \$ 2,193.82

Depreciation Expense \$ 1,583.04

Net Profit or Loss (After Depreciation) \$ 610.78

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1963

Income:

Proceeds of Fruit	\$ 30,226.69	
Interest (from Co-ops)	---	
Sun Rype Products Ltd.	---	
Government Apple Subsidy	---	
Custom Work	---	
Rental Income (Pasture)	100.00	
Timber Sales	---	
Crop Assistance	---	\$ 30,326.69

Expenses:Overhead Costs

Taxes and Water	\$ 478.11	
Telephone, Light & Power	1,282.62	
Insurance-Orchard-Dwelling	810.60	
'Other' Interest Charges	866.74	
Licenses and Dues	40.00	
Accounting and Legal	17.50	\$ 3,495.57

Pre-harvest Costs

Fertilizer & Spray Expense	2,929.54	
Repairs, small Tools	1,158.57	
Gas, Oil - Equipment	986.82	
Repairs, Equipment	---	
Bank Charges (Operating)	1,281.20	
Wages & Benefits	429.57	
Other (Postage, stationary)	72.95	\$ 6,858.65

Harvest Costs

Wages & Benefits	\$ 8,161.88	
Hauling	583.71	
Packing House Charges	152.04	
Custom Work, Equip. Rentals	---	
Car Expense (Gas & Oil)	---	\$ 8,897.63

Extraordinary Costs

Trees	---	
Loss Co-op Shares	---	\$ 19,251.85

Net Profit or Loss (Before Depreciation) \$ 11,074.84

Depreciation Expense \$ 1,832.58

Net Profit or Loss (After Depreciation) \$ 9,242.26

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1964

Income:

Proceeds of Fruit	\$ 18,644.11	
Interest (from Co-ops)	---	
Sun Rype Products Ltd.	---	
Government Apple Subsidy	---	
Custom Work	---	
Rental Income (Pasture)	100.00	
Timber Sales	---	
Crop Assistance	---	\$ 18,744.11

Expenses:Overhead Costs

Taxes and Water	\$ 551.01	
Telephone, Light & Power	1,239.21	
Insurance-Orchard-Dwelling	769.70	
'Other' Interest Charges	835.72	
Licenses and Dues	40.00	
Accounting and Legal	17.50	\$ 3,453.14

Pre-harvest Costs

Fertilizer & Spray Expense	2,312.16	
Repairs, small Tools	1,626.38	
Gas, Oil - Equipment	777.66	
Repairs, Equipment	---	
Bank Charges (Operating)	1,435.41	
Wages & Benefits	588.51	
Other (Postage, stationary)	5.80	\$ 6,745.92

Harvest Costs

Wages & Benefits	\$ 11,181.75	
Hauling	133.03	
Packing House Charges	372.94	
Custom Work, Equip. Rentals	---	
Car Expense (Gas & Oil)	---	\$11,687.72

Extraordinary Costs

Trees	---	
Loss Co-op Shares	---	\$ 21,886.78

Net Profit or Loss (Before Depreciation) \$ (3,142.67)

Depreciation Expense \$ 2,521.89

Net Profit or Loss (After Depreciation) \$ (5,664.56)

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1965

Income:

Proceeds of Fruit	\$ 8,989.08	
Interest (from Co-ops)	---	
Sun Rype Products Ltd.	---	
Government Apple Subsidy	---	
Custom Work	---	
Rental Income (Pasture)	50.00	
Timber Sales	---	
Crop Assistance	---	\$ 9,039.08

Expenses:Overhead Costs

Taxes and Water	\$ 634.35	
Telephone, Light & Power	1,178.90	
Insurance-Orchard-Dwelling	257.60	
'Other' Interest Charges	517.44	
Licenses and Dues	18.00	
Accounting and Legal	17.50	\$ 2,623.79

Pre-harvest Costs

Fertilizer & Spray Expense	1,587.24	
Repairs, small Tools	752.17	
Gas, Oil - Equipment	482.34	
Repairs, Equipment	---	
Bank Charges (Operating)	1,647.10	
Wages & Benefits	232.89	
Other (Postage, stationary)	14.07	\$ 4,715.81

Harvest Costs

Wages & Benefits	\$ 4,424.96	
Hauling	604.70	
Packing House Charges	380.03	
Custom Work, Equip. Rentals	---	
Car Expense (Gas & Oil)	---	\$ 5,409.69

Extraordinary Costs

Trees	---	
Loss Co-op Shares	---	\$12,749.29

Net Profit or Loss (Before Depreciation) \$ (3,710.21)

Depreciation Expense \$ 2,811.78

Net Profit or Loss (After Depreciation) \$ (6,521.99)

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1966

Income:

Proceeds of Fruit	\$ 15,983.09	
Interest (from Co-ops)	---	
Sun Rype Products Ltd.	---	
Government Apple Subsidy	---	
Custom Work	---	
Rental Income (Pasture)	---	
Timber Sales	---	
Crop Assistance	<u>4,334.00</u>	\$ 20,317.09

Expenses:Overhead Costs

Taxes and Water	\$ 662.52	
Telephone, Light & Power	1,398.57	
Insurance-Orchard-Dwelling	436.36	
'Other' Interest Charges	933.15	
Licenses and Dues	---	
Accounting and Legal	<u>383.00</u>	\$ 3,813.60

Pre-harvest Costs

Fertilizer & Spray Expense	1,619.78	
Repairs, small Tools	721.83	
Gas, Oil - Equipment	276.57	
Repairs, Equipment	---	
Bank Charges (Operating)	522.79	
Wages & Benefits	415.46	
Other (Postage, stationary)	<u>---</u>	\$ 3,556.43

Harvest Costs

Wages & Benefits	\$ 7,893.75	
Hauling	41.69	
Packing House Charges	---	
Custom Work, Equip. Rentals	---	
Car Expense (Gas & Oil)	<u>---</u>	\$ 7,935.44

Extraordinary Costs

Trees	\$ 392.46	
Loss Co-op Shares	<u>---</u>	\$ 392.46
		\$15,697.93

Net Profit or Loss (Before Depreciation) \$ 4,619.16

Depreciation Expense \$ 2,705.79

Net Profit or Loss (After Depreciation) \$ 1,913.37

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1967

Income:

Proceeds of Fruit	\$ 25,473.38	
Interest (from Co-ops)	---	
Sun Rype Products Ltd.	---	
Government Apple Subsidy	---	
Custom Work	---	
Rental Income (Pasture)	---	
Timber Sales	547.05	
Crop Assistance	<u>128.42</u>	\$ 26,148.85

Expenses:Overhead Costs

Taxes and Water	\$ 731.67	
Telephone, Light & Power	1,132.14	
Insurance-Orchard-Dwelling	1,427.03	
'Other' Interest Charges	1,983.90	
Licenses and Dues	---	
Accounting and Legal	<u>78.45</u>	\$ 5,353.19

Pre-harvest Costs

Fertilizer & Spray Expense	1,811.36	
Repairs, small Tools	1,866.20	
Gas, Oil - Equipment	405.87	
Repairs, Equipment	---	
Bank Charges (Operating)	---	
Wages & Benefits	531.89	
Other (Postage, stationary)	<u>---</u>	\$ 4,615.32

Harvest Costs

Wages & Benefits	\$ 10,105.95	
Hauling	719.52	
Packing House Charges	481.27	
Custom Work, Equip. Rentals	---	
Car Expense (Gas & Oil)	<u>---</u>	\$11,306.74

Extraordinary Costs

Trees	---	
Loss Co-op Shares	<u>---</u>	<u>---</u> \$ 21,275.25

Net Profit or Loss (Before Depreciation) \$ 4,873.60

Depreciation Expense \$ 2,705.79

Net Profit or Loss (After Depreciation) \$ 2,167.81

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1968

Income:

Proceeds of Fruit	\$ 26,233.83	
Interest (from Co-ops)	---	
Sun Rype Products Ltd.	---	
Government Apple Subsidy	---	
Custom Work	114.00	
Rental Income (Pasture)	---	
Timber Sales	312.50	
Crop Assistance	---	\$ 26,660.33

Expenses:Overhead Costs

Taxes and Water	\$ 794.58	
Telephone, Light & Power	1,324.81	
Insurance-Orchard-Dwelling	1,506.30	
'Other' Interest Charges	1,784.97	
Licenses and Dues	---	
Accounting and Legal	121.00	\$ 5,531.66

Pre-harvest Costs

Fertilizer & Spray Expense	1,466.88	
Repairs, small Tools	1,272.15	
Gas, Oil - Equipment	530.50	
Repairs, Equipment	---	
Bank Charges (Operating)	---	
Wages & Benefits	531.12	
Other (Postage, stationary)	---	\$ 3,800.65

Harvest Costs

Wages & Benefits	\$ 10,091.22	
Hauling	549.89	
Packing House Charges	332.51	
Custom Work, Equip. Rentals	118.40	
Car Expense (Gas & Oil)	---	\$11,092.02

Extraordinary Costs

Trees	---	
Loss Co-op Shares	---	\$ 20,424.33

Net Profit or Loss (Before Depreciation) \$ 6,236.00

Depreciation Expense \$ 2,778.90

Net Profit or Loss (After Depreciation) \$ 3,457.10

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1969

Income:

Proceeds of Fruit	\$ 14,705.53	
Interest (from Co-ops)	---	
Sun Rype Products Ltd.	---	
Government Apple Subsidy	---	
Custom Work	60.00	
Rental Income (Pasture)	---	
Timber Sales	---	
Crop Assistance	---	\$ 14,765.53

Expenses:Overhead Costs

Taxes and Water	\$ 875.80	
Telephone, Light & Power	164.84	
Insurance-Orchard-Dwelling	384.30	
'Other' Interest Charges	1,881.33	
Licenses and Dues	---	
Accounting and Legal	75.00	\$ 3,381.27

Pre-harvest Costs

Fertilizer & Spray Expense	649.41	
Repairs, small Tools	833.07	
Gas, Oil - Equipment	370.02	
Repairs, Equipment	---	
Bank Charges (Operating)	33.41	
Wages & Benefits	---	
Other (Postage, stationary)	---	\$ 1,885.91

Harvest Costs

Wages & Benefits	\$ 3.38	
Hauling	---	
Packing House Charges	43.00	
Custom Work, Equip. Rentals	---	
Car Expense (Gas & Oil)	---	\$ 46.38

Extraordinary Costs

Trees	\$ ---	
Loss Co-op Shares	---	---
		\$ 5,313.56

Net Profit or Loss (Before Depreciation) \$ 9,451.97

Depreciation Expense \$ 2,167.23

Net Profit or Loss (After Depreciation) \$ 7,284.74

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1970

Income:

Proceeds of Fruit	\$ 10,332.68	
Interest (from Co-ops)	---	
Sun Rype Products Ltd.	---	
Government Apple Subsidy	---	
Custom Work	---	
Rental Income (Pasture)	---	
Timber Sales	---	
Crop Assistance	---	\$ 10,332.68

Expenses:Overhead Costs

Taxes and Water	\$ 989.74	
Telephone, Light & Power	1,305.49	
Insurance-Orchard-Dwelling	1,173.78	
'Other' Interest Charges	312.12	
Licenses and Dues	---	
Accounting and Legal	25.00	\$ 3,806.13

Pre-harvest Costs

Fertilizer & Spray Expense	1,879.35	
Repairs, small Tools	1,198.31	
Gas, Oil - Equipment	740.19	
Repairs, Equipment	---	
Bank Charges (Operating)	260.41	
Wages & Benefits	465.01	
Other (Postage, stationary)	35.83	\$ 4,579.10

Harvest Costs

Wages & Benefits	\$ 8,835.25	
Hauling	538.19	
Packing House Charges	536.22	
Custom Work, Equip. Rentals	---	
Car Expense (Gas & Oil)	57.00	\$ 9,966.66

Extraordinary Costs

Trees	\$ 395.46	
Loss Co-op Shares	---	\$ 395.46 \$18,747.35

Net Profit or Loss (Before Depreciation) \$(8,414.67)

Depreciation Expense \$ 2,806.28

Net Profit or Loss (After Depreciation) \$(11,220.95)

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1971

Income:

Proceeds of Fruit	\$ 20,098.94	
Interest (from Co-ops)	---	
Sun Rype Products Ltd.	---	
Government Apple Subsidy	---	
Custom Work	---	
Rental Income (Pasture)	---	
Timber Sales	---	
Crop Assistance	<u>2,954.12</u>	\$ 23,053.06

Expenses:Overhead Costs

Taxes and Water	\$ 983.80	
Telephone, Light & Power	1,269.77	
Insurance-Orchard-Dwelling	1,296.82	
'Other' Interest Charges	5,922.34	
Licenses and Dues	---	
Accounting and Legal	<u>30.00</u>	\$ 9,502.73

Pre-harvest Costs

Fertilizer & Spray Expense	1,965.70	
Repairs, small Tools	1,686.37	
Gas, Oil - Equipment	619.83	
Repairs, Equipment	---	
Bank Charges (Operating)	1,036.95	
Wages & Benefits	544.22	
Other (Postage, stationary)	<u>54.11</u>	\$ 5,907.18

Harvest Costs

Wages & Benefits	\$ 10,340.16	
Hauling	---	
Packing House Charges	2,345.70	
Custom Work, Equip. Rentals	1,108.41	
Car Expense (Gas & Oil)	<u>392.44</u>	\$14,186.71

Extraordinary Costs

Trees	\$ 156.76	
Loss Co-op Shares	<u>---</u>	\$ 156.76 \$29,753.38

Net Profit or Loss (Before Depreciation) \$(6,700.32)

Depreciation Expense \$ 2,879.50

Net Profit or Loss (After Depreciation) \$(9,579.82)

TUMBLEMOON RANCH

Income Statement
For the Year Ending December 31, 1972

Income:

Proceeds of Fruit	\$ 25,795.41	
Interest (from Co-ops)	---	
Sun Rype Products Ltd.	---	
Government Apple Subsidy	---	
Custom Work	---	
Rental Income (Pasture)	---	
Timber Sales	---	
Crop Assistance	---	\$ 25,795.41

Expenses:Overhead Costs

Taxes and Water	\$ 1,151.20	
Telephone, Light & Power	1,337.77	
Insurance-Orchard-Dwelling	1,075.72	
'Other' Interest Charges	1,850.14	
Licenses and Dues	---	
Accounting and Legal	87.50	\$ 5,502.33

Pre-harvest Costs

Fertilizer & Spray Expense	1,999.46	
Repairs, small Tools	1,509.34	
Gas, Oil - Equipment	769.49	
Repairs, Equipment	---	
Bank Charges (Operating)	1,646.60	
Wages & Benefits	604.76	
Other (Postage, stationary)	30.00	\$ 6,559.65

Harvest Costs

Wages & Benefits	\$ 11,490.52	
Hauling	---	
Packing House Charges	1,098.72	
Custom Work, Equip. Rentals	952.85	
Car Expense (Gas & Oil)	349.00	\$13,891.09

Extraordinary Costs

Trees	\$ ---	
Loss Co-op Shares	9,146.55	\$ 9,146.55 \$35,099.62

Net Profit or Loss (Before Depreciation)	\$ (9,304.21)
Depreciation Expense	\$ 2,810.25
Net Profit or Loss (After Depreciation)	\$ (12,114.46)

Appendix C

LAND USE CONTRACT

THIS AGREEMENT made this day of 19

BETWEEN:

REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN
a body Corporate under the laws of the
Province of British Columbia;

(Hereinafter called "Regional District")

OF THE FIRST PART

AND: THE ORCHARDIST-OPERATOR

OF THE SECOND PART

WHEREAS the Regional District, pursuant to Section 702A of the Municipal Act, being Chapter 255 of the Revised Statutes of British Columbia, A.D. 1960 and Amendments thereto, may, notwithstanding any bylaw of the Municipality, or Section 712 or 713 of the Municipal Act, enter into a land use contract containing such terms and conditions for the use and development of land as may be agreed upon with a developer, and thereafter the use and development of the land shall be in accordance with the land use contract;

AND WHEREAS the Municipal Act requires that the Board of the Regional District (hereinafter referred to as the "Board") consider the criteria as set out in Section 702(2) and 702A(1) in arriving at the terms, conditions and consideration contained in the land use contract;

AND WHEREAS the Developer has presented to the Board a scheme of use and development of the within described lands and premises that would be in contravention of a bylaw of the Regional District or Section 712 or 713 of the Municipal Act or both, and has requested that the Regional District enter into this contract under the terms, conditions and for the consideration hereinafter set forth;

AND WHEREAS all other bylaws of the Regional District as the same relate to and regulate the use of the above described lands are thereby waived or varied to the extent necessary to give effect to the terms and conditions set forth herein;

AND WHEREAS the Board, having given due consideration to the criteria set forth in Sections 702(2) and 702A(1) of the Municipal Act, have agreed to the terms, conditions and consideration herein contained;

AND WHEREAS the lands hereinafter described lie within the area designated by "Electoral Area ____" Zoning Bylaw Number _____ "Development Area";

AND WHEREAS the Board and the Developer both acknowledge that the Regional District could not enter into this Agreement, until the Board held a public hearing in relation to this Agreement, and considered any opinions expressed at such hearing, and unless duly passed by the members of the Board of the Regional District;

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the premises and conditions and covenants hereinafter set forth, the Regional District and the Developer covenant and agree as follows:--

Owner 1. _____, is the registered owner in fee simple of all and singular those certain parcels or tracts of land and premises, situate, lying and being in the Kettle River Assessment District, and within the Regional District of Okanagan-Similkameen, and more particularly known and described as: _____

(Hereinafter referred to as the "lands".)

Consents 2. The developer, _____, has obtained the consents of all persons having a registered interest in the land as set out in the schedule prefacing the consents to the use and development set forth herein which consents are attached hereto.

3. THAT this Land Use Contract is issued pursuant to the provisions of Section 702A of the Municipal Act and Electoral Area _____ Zoning Bylaw Number _____ of the Regional District.

Uses 4. The land including the surface of water and any and all buildings and structures erected thereon, thereover or therein shall be used for the purpose specified in Schedule "A" hereto and for none other.

- Sitting 5. All buildings and structures shall be constructed in compliance with and according to the attached plan marked Schedule "B" and no building or structure shall be constructed, re-constructed, altered, moved or extended upon the land except in compliance with the specifications and the plot plan set out in Schedule "B" hereto.
- Signs 6. No sign shall be erected upon the land or any building or structure thereon except those shown on the Plans and specifications set out in Schedule "D" hereto.
- Parking 7. Off street parking and loading spaces shall be provided, located and constructed in accordance with the plan set out in Schedule "C" hereto.
- Certificates 8. No development shall take place on the said lands until the Developer has obtained a Certificate of Public Convenience and Necessity or tentative approval in writing from the Public Utilities Commission for the development or stage of development.
- Construction 9. Prior to the commencement of any building or structure a permit to commence such building or structure shall be obtained from the Regional District building inspector and such permit will not be issued until the acquirement of above section 8 have been met.
- Plans & Specs 10. All buildings and structures shall be constructed strictly in compliance with and according to the plans and specifications set out in Schedule "D" hereto.
- Landscaping 11. All landscaping, surface, treatments, fences and screens shall be constructed, located, provided and maintained in compliance with and according to the plans and specifications set out in Schedule "D" hereto.
- Utilities 12. All utilities, including water, sewer, gas, telephone and electricity, shall be placed, provided and constructed in compliance with and according to the plans and specifications set out in Schedule "E" hereto.
- Highways 13. All highways, bridges, lanes and walkways, including drainage, surfacing, curbs, gutters, street lighting, boulevards and street signs shall be provided, located and constructed in compliance with and according to the plans and specifications set out in Schedule "F" hereto.

- Parks 14. All lands for public institutional uses, parks, public space, playgrounds or other recreation facilities, to be dedicated by subdivision plan or otherwise provided, shall be provided, constructed and developed in compliance with and according to the plans and specifications set out in Schedule "G" hereto.
- Refuse 15. Prior to completion of any and all stages of the development, provisions shall be made by the Developer for inclusion of the development within a Regional District Sub-Regional Refuse disposal area.
- Sub-division 16. No land shall be subdivided except in compliance with and according to the plans and specifications set out in Schedule "H" hereto.
- Security 17. The Developer shall provide the Regional District with the security set out in Schedule "I" hereto to guarantee performance hereof.
- Payment 18. Except as specifically provided in Schedule "J" hereto, the entire cost of the development of the land including the provision of all services and the provision and construction of the items set out in paragraphs 6 to 14 hereof shall be paid for by the Developer.
- Schedule 19. The Developer shall carry out the work and construct, locate, provide and develop the structures, buildings, works, services, developments and facilities according to the times set out in Schedule "K" hereto.
- Change 20. The provisions of this Agreement may be changed by altering, adding or deduction therefrom provided that the Regional District and the Developer and any other person or persons presently having or subsequently acquiring an interest in the said lands, to be effected by mutual consent in writing to such changes.
- Inspection 21. The Regional District may at all reasonable times enter upon the lands and carry out all necessary inspections to insure that the lands are developed and used in accordance with the provisions of this Agreement.
- Penalty 22. In the event of the breach of any term or provision of this Agreement or failure by the Developer to comply with, develop and maintain the lands in accordance with the provisions of this

Agreement, the Regional District may without notice enter upon the lands and perform the development required by this Agreement and the cost of so doing shall be a charge against the lands and shall be paid for by the Developer.

- Defini- 23. That in the interpretation of this Agreement
tion all definitions or words and phrases contained in the Electoral Area _____ Zoning Bylaw Number _____ of the Regional District, as amended from time to time, should apply to this Land Use Contract and to the attachments hereto.
- Regis- 24. This Agreement shall be construed as running
tration with the land and shall be registered in the Land Registry Office, Kamloops, British Columbia by the Regional District pursuant to the provisions of Section 702A(4) of the Municipal Act.
- Fee 25. That the Developer shall pay to the Regional District all costs incurred in the preparation and registration of this Agreement and any amendments thereto.
- Inter- 26. That this Agreement shall enure to the benefit
pretation of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors and assigns, and wherever the singular or masculine is used herein, the same shall be construed as meaning the plural, feminine or body corporate or politic where the context of the parties hereto so require.

A public hearing on this agreement was held the _____ day of _____, 197__

This agreement was approved on the _____ day of _____, 197__ by a vote of a majority of all members of the Regional Board.

IN WITNESS WHEREOF the said parties to this Agreement have hereunto set their hands and seals the day and year first above written.

THE SEAL of the Regional District of)
Okanagan-Similkameen was affixed in)
the presence of:)

Chairman

Administrator

SIGNED, SEALED AND DELIVERED
in the presence of:

Witness

Address

Occupation

Schedule "A"Schedule of permitted land use:

The following uses and no others shall be permitted in accordance with those uses indicated on the plan attached to Schedule "B":

(a) Agriculture, subject to the following:

- (i) Except as provided by subclause (ii), on any lot or site of less than one-half ($1/2$) acre, only household pets are permitted and no horse, donkey, mule, hinny, cow, goat, sheep or pig shall be a household pet whether or not it is owned by occupants of the residence and not kept for remuneration, hire or sale;
- (ii) On any lot or site, commercial kennels, stables, mink farms, feedlots, piggeries, or other similar service or non-agricultural, product-based operations shall be prohibited, save and except the raising of fowl, rabbits, and other small fur-bearing animals as a home occupation;
- (iii) LIVESTOCK (Special Provisions):
 - (A) On any lot or site of less than two (2) acres,
 - (i) the total number of horses, sheep, or other similar large animals shall not exceed one (1) for each one-half ($1/2$) acre or fraction thereof of lot or site area in excess of one-half ($1/2$) acre;
 - (ii) the total number of fowl, rabbits, or other small fur-bearing animals, or the number of colonies of bees, shall not exceed twenty-five (25) plus one (1) for each five hundred (500) square feet or fraction thereof of lot or site area in excess of one-half ($1/2$) acre.

Notwithstanding subclause (ii) above, in the case of chinchillas, the maximum number allowed on a lot or site less than one half ($1/2$) acre shall not exceed five hundred (500) while there are no restrictions to the number of chinchillas on lots in excess of one half ($1/2$) acre.

- (B) All livestock other than household pets shall be properly caged or housed.
- (iv) The processing, packing, and sale of agricultural produce shall be permitted, including fruitstands provided the following criteria are met for these structures:
 - (1) access permit has been obtained from the Dept. of Highways, and
 - (2) are structurally of sound construction with a durable painted or prefinished exterior cladding.
- (b) Single-family dwellings;
- (c) Mobile homes provided they have a floor area of not less than seven hundred fifty (750) square feet and have a minimum width as originally designed and manufactured of not less than sixteen (16) feet and are placed on permanent foundations with full skirting blending in with the unit. On sites of five acres or more in area, or on the following numbered lots,

 _____, any mobile home or factory built unit home having a floor area of not less than four hundred and eighty (480) square feet, sited not less than twenty-five (25) feet from any property line shall be permitted;
- (d) Home occupations, provided that on any lot or site of less than one (1) acre, the area used for home occupations shall not exceed five hundred (500) square feet;
- (e) Public open-land recreational and institutional uses, including parks, playgrounds and cemeteries;
- (f) Public service or utility buildings and structures, with no exterior storage of any kind and no garages for the repair and maintenance of equipment;
- (g) Buildings and structures accessory to the uses permitted under clauses above.

Schedule "B"Plot Plan and Specifications:

Site area	The minimum site area shall be one half acre.
Density	<p>The maximum gross density shall be one lot per acre.</p> <p>Gross acreages shall mean the total contiguous acreage of land considered for subdivision and held under the same ownership.</p>
Staging	The proposed development shall be in four stages. Each successive stage shall be allowed only when fifty (50) percent of the previously permitted lots have become developed and improved to the extent that construction of a dwelling unit has been started.
Precautions	Land situated in areas with high-hazard soil stability ratings shall be subject to a specific site report by a qualified Soil Engineer prior to registration of subdivision of such lands.
Requirements	<p>Setbacks -- front 25 feet</p> <p>rear 25 feet</p> <p>side 5 feet and 10 feet respectively for interior lots</p> <p>15 feet for side yards abutting a road</p> <p>Site Coverage -- principal and accessory buildings together shall not occupy more than thirty (30) percent of the lot or site.</p> <p>Height of Building and Structures --</p> <p>maximum twenty-five (25) percent of lot or site depth or 50 feet whichever is less. In no case shall a dwelling exceed a height of thirty (30) feet.</p> <p>Minimum floor area -- No dwelling unit, factory built unit home or mobile home on sites less than five (5) acres shall have a floor area of less than seven hundred fifty (750) sq. ft.</p>

Number of Units -- Not more than one dwelling unit
shall be permitted upon a lot.

Plan -- See Plan _____ Dated _____

Schedule "C"

Off Street Parking:

Total Area -- Minimum three hundred sixty (360) sq. ft.

Number of Spaces -- Two (2) spaces per dwelling unit.

Size of Spaces -- One hundred eighty (180) sq. ft. per space.

Surfacing -- Optional

Lighting -- N/A

Signs -- N/A

Access -- Every required off street parking space shall be so
shaped and sited as to provide convenient access to
the premises and to a public street.

Plan -- N/A

Off Street Loading:

Total Area --)	
)	
Size of Area --)	
)	
Location --)	
)	
Surfacing --)	N/A
)	
Lighting --)	
)	
Signs --)	
)	
Access --)	
)	
)	
Plan --)	

Schedule "D"

Subject to the Motor-Vehicle Act and the regulations made thereunder:

(a) No signs or advertising displays shall be permitted other than the following:

- (i) those denoting a home occupation;
- (ii) those denoting the name of the owner or the name or address of the property;
- (iii) those advertising the sale or rental of property;
- (iv) those advertising the sale of agricultural produce grown on the same lot or site or land of the same ownership;
- (v) public utility and institutional signs,

provided that such signs shall not exceed six (6) square feet in area or eight (8) feet in length and shall be limited to one (1) for each street frontage upon which the lot or site abuts, except that on any lot or site of less than one-half (1/2) acre, signs listed under subclause (i) and (ii) of this clause shall not exceed one and one-half (1 1/2) square feet in area.

(b) Notwithstanding clause (a), one (1) sign only advertising the sale of lots within a residential subdivision, not exceeding fifty (50) square feet in area or twelve (12) feet in length, may be erected.

(c) Roof signs and illuminated or flashing signs shall be prohibited.

(d) No sign shall project over a public right-of-way.

Buildings and Structures:

Prior to the commencement of any building or structure a permit to commence such building or structure shall be obtained from the Regional District building inspector and all construction shall be in accordance with the National Building Code of Canada, 1970, and subsequent amendments thereto, except as such are altered or deleted by the Regional District.

Landscaping, Surface Treatment, Fences and Screens:

Plans N/A

Specifications:

- (a) On any lot or site, no fence shall be
 - (i) more than six (6) feet in height for that portion of fence that does not extend beyond the minimum required front yard setback line on the lot or site; or
 - (ii) more than four (4) feet in height for that portion of fence that does extend beyond the minimum required front yard setback line on the lot or site.

All landscaping, surface treatments, drains, ditches and utilities installations shall be developed and constructed so that minimum disturbance is caused to the natural environment, and adequate restoration methods shall be employed should there be any such disturbance resulting from development or construction activities.

Schedule "E"Utilities:

Water -- No dwelling unit shall be constructed on the said lands until the Developer has obtained, in respect of the supply of water, a Certificate of Public Convenience and Necessity or tentative approval in writing from the Public Utilities Commission for the development or stage of development.

A piped water supply will be provided to each dwelling unit.

Standard Fire Hydrants, similar to Terminal City Iron Works No. 70 full flow with two 2 1/2" outlets, with a 4" upright to deliver, will be provided in such a manner that distances to any developable property shall not be greater than 350 ft.

Sewage Disposal -- Prior to the commencement of any construction of a dwelling unit, the Developer shall obtain a permit issued pursuant to the Provincial Regulations governing sewage disposal and pursuant to the Health Act of the Province of British Columbia.

Refuse Disposal -- All household refuse shall be collected and hauled on a weekly basis to a Regional District Refuse Disposal Site designated by the Regional District.

Electricity -- Each dwelling unit shall be serviced by electrical power.

Plans, Specifications and Locations -- Prior to the installation of any utility lines, a plan showing the location of such lines shall be submitted to the Regional District for approval.

Schedule "F"

Highways, Bridges, Lanes, Walkways:

Plans -- required

Specifications -- Approval by Department of Highways

Street Lighting:

Plans -- N/A

Specifications -- One four hundred (400) watt street light shall be provided at each of the two entrances to the lands on Eastside Road

Boulevards:

Plans -- N/A

Specifications -- N/A

Signs:

Plans -- N/A

Specifications -- In accordance with Schedule 'D'

Schedule "G"

Parks, Public Space and Recreational Facilities:

Construction -- None

Location -- See map attached to schedule "B"

Size --

Development -- None

Furnishing -- None

Plans -- N/A

Schedule "H"Subdivision Plans:Parcels:

Area -- See map attached to 'Schedule B'

Shape --

Dimensions --

Highways:

Dimensions -- Approval by Department of Highways

Location -- No additional access onto Lakeside Road will be permitted other than the two proposed in Schedule "B"

Alignment --

Gradient --

Schedule "I"Performance Security:Amount

Performance Bond --

\$ _____

Mortgage --

Certified Cheque --

Other --

The amount of the Performance Bond is based upon 200 lots at \$100.00 per lot, which may be reduced at the end of each year at the rate of \$100.00 per lot developed (i.e. with construction of a dwelling unit started) within the previous year.

The bond may be used for completion or enforcement of any terms or conditions of this contract, and to ensure compliance with any bylaw of the Regional District, including Noxious Insect control.

Schedule "J"

Works and Services to be Maintained and Operated by the Developer:

The Developer shall be fully responsible and shall pay for the operation and maintenance of all on site works and services including water servicing, reservoirs, parks, trails and recreational facilities.

Schedule "K"

Development and Service to be provided or paid for by the Developer:

The entire cost of the development of the land, including the provision of all services, shall be paid for by the Developer.

NO EXCEPTIONS

Appendix D.
1973 - SUBDIVISION PLAN UNDER
LAND USE CONTRACT

Scale 1" = 200'

STAGES

②

Contour Intervals at 25'

