

PUBLIC POLICY AND
THE PRESERVATION OF AGRICULTURAL LAND
IN THE SOUTHERN OKANAGAN VALLEY, BRITISH COLUMBIA

by

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Keren

“Quick! Get your gun, Pa! Here come the suburbs.”

Source: New Yorker, Aug.16, 1969, p.27.

"And so you are really going?" said Walter as he settled himself in an easy chair in front of my study fire.

"Yes," I answered. "I am. I have decided."

Walter reflected a moment. Then he observed, "I don't know but what you are right." Yet his tone was not of absolute conviction, as his next remark showed. "But don't you think, all the same, that you could grow fruit in England? Many people do. You know that hundreds of acres are being planted with apple trees in Nottinghamshire and Lincolnshire."

"Yes: I am quite aware of that. But what are the prospects? Consider the price of land - £100 per acre, anywhere within easy reach of London - perhaps more. After waiting the eight or ten years whilst it is growing up, you may at the end of that time find it is spoilt by the erection of factories, belching out smoke and other impurities, poisoning the atmosphere all round your trees."

.....
 "Then, in your opinion, an orchard is not exactly a garden of Eden?"

"Not in England, at any rate."

"Is it so anywhere - in any part of the world?"

"Yes: in Canada. At least, so I am told. I mean in British Columbia. It certainly is a paying occupation in Oregon and Washington and other Western States of America. And in the Okanagan district of British Columbia it is equally profitable. In those parts of the world the industry is old enough to have been thoroughly tested, and the results are satisfactory."

Bealby, J.T., Fruit Ranching in British Columbia, London:

Adam and Charles Black, 1911.

pp. v-vii.

Supervisor: DR. J.D. PORTEOUS

ABSTRACT

During the last decade, a great deal of concern has been raised in British Columbia over the loss of agricultural land to urban development; notably the reduction of orchard land in the Okanagan Valley. Good agricultural land in British Columbia is in relatively short supply, and the Okanagan Valley is the only area in western Canada where tree fruit can be commercially produced. In response to this concern, the provincial government adopted the Land Commission Act in 1973 in an attempt to preserve agricultural land in British Columbia. This thesis examines the extent of urban encroachment on orchard land in the southern Okanagan, factors involved in the land conversion process, and evaluates the impact of the Land Commission Act on the process.

The rural to urban land conversion process is conceptualized as a complex set of independent but interrelated decisions being made by numerous actors. Each decision in the process is influenced by the personal motives and preferences of the actors, the locational and physical characteristics of the site, and by public policy, which establishes the framework in which private decisions are made. Public policy is viewed as the key element in the land conversion process; it is public policy which must be changed if the developing land use patterns are considered contrary to the public's interest.

An air photo interpretation and computer mapping analysis revealed that the majority of urban development was located on the

best agricultural land, and that this trend was accelerating between 1963 and 1970. Moreover, urban growth tended to occur in a very scattered form, which alienates additional orchard land. Interviews held with orchardists, realtors, and government officials indicated that orchard land has been the most attractive location for new urban development.

Prior to the Land Commission Act, urban development occurred on orchard land despite public land use controls. Direct influence on land use was provided by zoning by-laws, but these were not designed to preserve orchard land; in fact, they encouraged conversion by placing more restrictive zoning on agricultural land. Other public policies, such as subdivision, taxation, sewage disposal, and water supply regulations, indirectly influenced land conversion by making orchard land very attractive for development.

The Land Commission Act altered the land conversion process in the southern Okanagan by the establishment of an "agricultural reserve," in which subdivision and urban uses are restricted. The conversion of land to urban uses requires the exclusion of land from the agricultural reserve, and these decisions are made in most cases by the Provincial Land Commission. This new public policy can be expected to reduce the scatteration of urban development in orchard areas, reduce the amount of good orchard land taken out of production, and result in a more compact form of urban growth when it does occur on orchard land.

However, the reasons why orchard land was converted to urban uses in the past will continue to exist in the future, and in many ways orchard land will still be the most attractive for development.

As population and the demand for residential property increase, pressures will mount to have land excluded from the agricultural reserve unless alternative areas are feasible for development.

This new public policy views the loss of orchard land as the primary problem; however, the main problem is uncontrolled urban growth. The loss of agricultural land is only one consequence of such growth. The preservation of agricultural land must be viewed as one component of an overall provincial land policy stressing the definition of objectives, the coordination of regulatory techniques, the cooperation of administrative agencies, and the introduction of positive policies and programs to take more initiative and responsibility in shaping the form of future urban growth and the resolution of conflicts such as the loss of agricultural land.

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LIST OF ABBREVIATIONS

A.R.D.A.	Agricultural and Rural Development Act
B.C.F.G.A.	British Columbia Fruit Growers' Association
B.C.L.I.	British Columbia Land Inventory
C.L.I.	Canada Land Inventory
C.M.H.C.	Central Mortgage and Housing Corporation
R.D.O.S.	Regional District of Okanagan - Similkameen

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INTRODUCTION

Woe unto them that lay house to house...until there be no place...

Isaiah, Chapter 5, verse 8.

Uncontrolled growth, occurring sporadically, spreading without discrimination, would slowly but surely obliterate the valleys, inexorably cover the landscape with its smear, irrevocably destroy all that is beautiful and memorable. No matter how well designed each individual subdivision might be, no matter if small parks were interfused with housing, the great landscape would be expunged.

Ian McHarg, 1969, p. 83.

Both Isaiah and McHarg are foretelling the conflicts and problems that may result from uncontrolled urban growth. McHarg's concern represents only one voice of innumerable outcries being raised against the deleterious impact that man is having on his environment. ¹ Many of these deleterious impacts can be directly attributable to the rapid increase in population. ² A population increase creates a demand for additional living space, which has largely been accommodated through the development of high density apartments near the city centre, ³ or low density dwellings at the periphery of the city, primarily single family homes. ⁴ Fringe areas have become particularly attractive for development with improvements in transportation systems, especially those designed to accommodate the private automobile. Thus, people can enjoy the economic advantages and cultural opportunities of the urban centre as well as the amenities of country living. ⁵ Peripheral urban growth may occur as continuous compact development or with interstitial vacant land. These patterns of land use are frequently referred to as "urban sprawl", although the term is most commonly applied to the latter.

Sprawl, in any form, has significant economic, social and environmental consequences.

Studies examining the consequences of urban growth criticize the process in terms of the problems created, and are orientated from either the urban or rural points of view. Sprawl has been termed an uneconomic process because of high land appreciation resulting from speculation,⁶ as well as the high costs of servicing scattered development. Others argue that the majority of new developments are aesthetically unpleasant, indicating the destruction of the landscape during construction, the amount of vacant and abandoned land from scattered developments, and the monotony of building styles. Still others argue that the main problem is the loss of open space, especially open space that could be useful to future urbanites, such as land for visual amenity and recreational opportunities.⁷

Studies with more rural orientations stress the negative impact that urban development has upon farming, such as the problems encountered while trying to continue operations in the face of urban encroachment. Others emphasize the direct loss and alienation of prime agricultural land resulting from the conversion process.⁸ A few authors have concentrated on specific types of agricultural land, notably land which has the soil and climatic attributes necessary to produce specialty crops, such as tree fruits.⁹ This type of land is extremely scarce in some areas and its conservation is viewed as essential to long term agricultural production, especially if there is sufficient marginal land available to accommodate the demand for new development.

Agricultural land is relatively scarce in British Columbia, with the best arable land being confined to specific areas in the southern part of the province because of the more favourable climatic conditions.

"Only four percent of B.C. territory is represented by arable land, and only two and one-half percent is cultivated;"¹⁰ the one and one-half percent of uncultivated arable land could only be brought into production with considerable capital investment. Total farm area in British Columbia amounts to 4,506,552 acres out of a total land area of 229,938,560 acres. Of the former, only 788,896 acres were planted to crops in 1961.¹¹ The most significant agricultural areas in British Columbia are the Lower Fraser Valley, the Okanagan Valley, Southeast Vancouver Island, the Peace River District, and the Kootenays. However, these areas, especially the Lower Fraser Valley and Southeast Vancouver Island, have also developed as the major urbanized regions in British Columbia. These two areas have also been the foci of most studies concerned with rural-urban land use conflicts.¹² No studies have been made on the effects of urbanization in the Okanagan Valley.

The Okanagan Valley ranks second to the Lower Fraser Valley in agricultural importance in British Columbia in terms of total farm cash income; over fifty percent of this value is derived from the production of tree fruits.¹³ British Columbia is one of the major fruit producing areas in Canada, ranking second behind Ontario, and ahead of Quebec and Nova Scotia. Ninety percent of British Columbia orchards are located in the Okanagan Valley.¹⁴ A wide variety of tree fruits can be grown successfully in this area due to a combination of good soil conditions, mild winters, hot and dry summers, and extensive irrigation systems.¹⁵

Moreover, this combination of physical factors also contributes to the desirability of the area as a place to live, and as a tourist resort in the summer months. Population has been increasing steadily since 1950, with growth since 1966 well above the provincial average.

This growth has been the result of industrial incentives programs, A.R.D.A. projects, an increase in mining activity, and the expansion of tourism.¹⁶ In-migration provided the major component of this growth,¹⁷ which led to an increasing demand for living space in both the urban and rural areas. Concern was expressed that the new development would occur on prime agricultural land.¹⁸

The orderly development of urban growth, and the resolution of rural-urban conflicts is the function of various agencies responsible for land use planning. In British Columbia, this responsibility is primarily the function of the Department of Municipal Affairs. Through the Municipal Act, this responsibility is further delegated to various municipalities and regional districts. The latter were established in 1966 for the purpose of exercising planning control in rural areas. Direct land use control is exercised through such techniques as zoning, development control, and regional planning. Indirect influence on land use is exercised by various agencies whose responsibilities cover such things as subdivision regulations, water supply, sewage disposal, and taxation. In spite of these methods, prime agricultural land has been continually and steadily lost to urban development throughout British Columbia. The need for new techniques and programs to reduce the loss of agricultural land became very apparent.

In August, 1972, the British Columbia provincial election was won by the New Democratic Party. One of its election promises was to introduce new legislation to reduce the loss of agricultural land to urban development. On December 21, 1972, a freeze was placed on the subdivision of all agricultural land in British Columbia. This action was implemented through an Order-in-Council under the Environment and

and Land Use Act, and was adopted as a temporary measure until new legislation could be drafted. The new legislation (Bill 42 or the Land Commission Act) met with violent opposition from the other political parties and private groups after its introduction on February 22, 1973. Opponents argued that it gave too much power to the government and infringed upon basic human rights. The bill was subsequently amended and reintroduced on March 28, 1973. The amended version clarified many points of confusion of the original bill, reduced the extent of its control on land, and specified that the Act would be initially administered by local municipalities and regional districts. These changes apparently satisfied the opposition (as newspaper coverage virtually ceased) and the bill was finally passed on April 17, 1973. The Act created a Provincial Land Commission, charged with establishing agricultural reserves, in which subdivision for urban purposes is not allowed, except through an appeal for exclusion made through a regional district. Agricultural reserve boundaries can only be changed after a decision by the Land Commission. The purpose of the legislation is to preserve agricultural land from loss due to urban expansion. The question remains whether this new legislation (a change in public policy) has altered the rural to urban land conversion process enough to accomplish its purpose.

SCOPE AND OBJECTIVES

The purpose of this thesis is to examine the nature and extent of the rural to urban land conversion process in British Columbia, with particular reference to the loss of agricultural land, and to examine the implications that a change in public policy will have upon the process. It was decided to concentrate upon a particular form of

agriculture providing the major agricultural activity in a specific area, and which has experienced considerable urban growth in recent years. The southern Okanagan Valley of British Columbia met these criteria on all counts, and because the freeze on the subdivision of farmland was specifically "brought in to save farmland more in the Okanagan than the Fraser Valley."¹⁹

The particular study area chosen was that area within the watershed boundary of the Okanagan River, and within the boundaries of the Regional District of Okanagan-Similkameen. The southern part of the Okanagan Valley (south of Peachland) is where orcharding forms the predominant agricultural activity, and where the widest variety of tree fruits can be grown.²⁰ The watershed area provided an easily definable geographical boundary, while the boundary of the regional district provided the opportunity to examine rural land use controls imposed by a single administrative unit. Thus, the study area is bounded by the watershed to the east and west, the regional district boundary to the north, and the Canada-United States border to the south (Fig. 1).

The first objective of this thesis is to outline the extent of the conflict between urban development and land with a capability for tree fruit production in the southern Okanagan Valley, as defined by the British Columbia Land Inventory (B.C.L.I.) classification system, and to indicate the trend that has occurred in the last decade. The second objective is to examine the nature of those factors involved in the conversion of orchard land to urban uses in order to provide a basis for evaluating changes in public policy. This conversion process is conceptualized as a complex series of independent but interrelated decisions being made by numerous actors. Each decision in the process

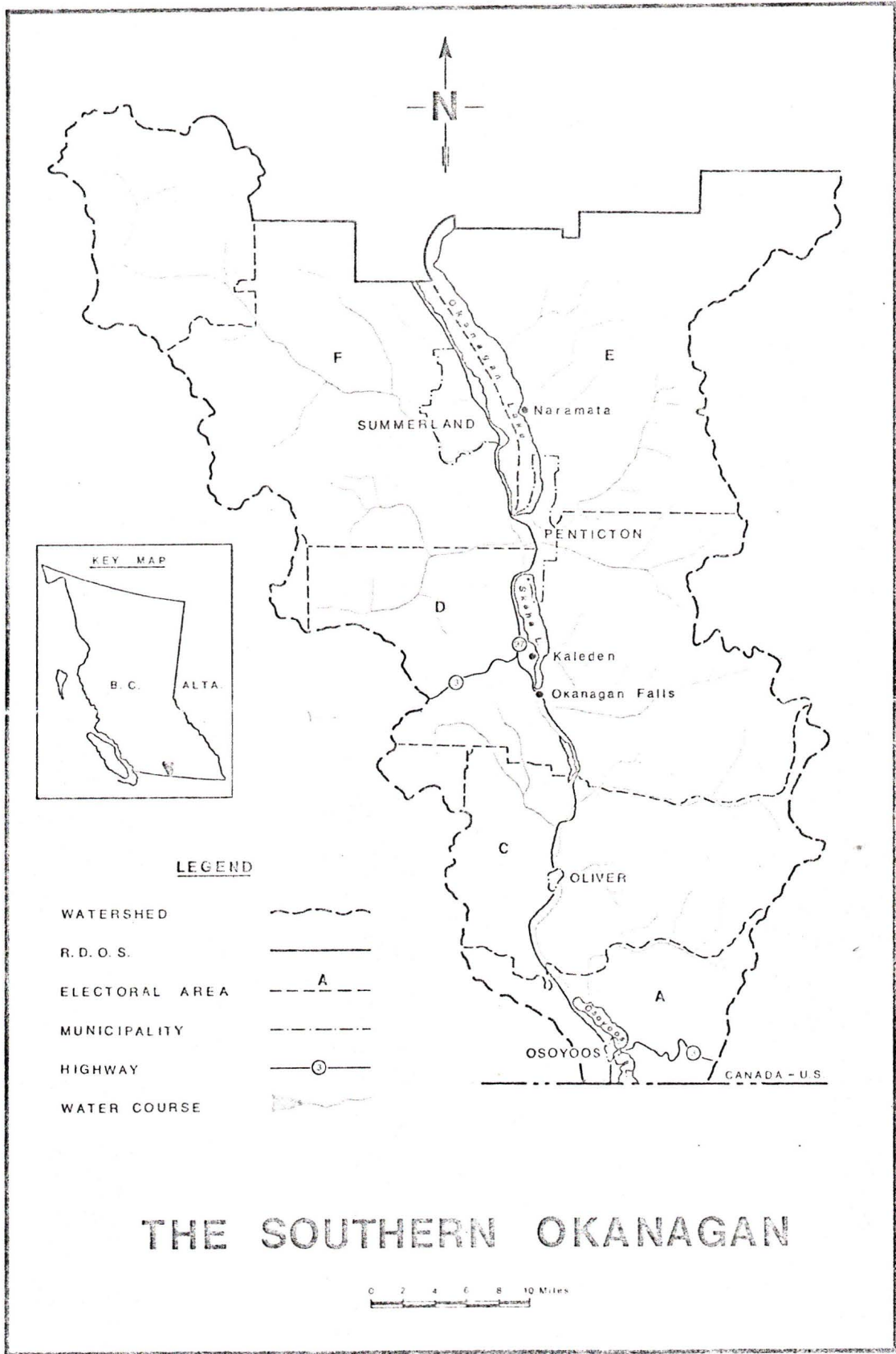


FIGURE 1

is influenced by the personal incentives and motives of the actors, the locational and physical characteristics of the site, and by public policy, which provides the framework in which private decisions are made. For the purpose of this study, public policy is viewed as the key element in the land conversion process. It is public policy which has to be changed if the development patterns are considered contrary to the public's interest, both present and future. In British Columbia, the encroachment of urban development on agricultural land was determined as being contrary to public interest. Public policy was changed through the introduction of new legislation, the Land Commission Act, the purpose of which is to preserve agricultural land. Thus, the third objective of this study is to evaluate the impact that the Land Commission Act will have upon the land conversion process, and to assess its probability of success in preserving orchard land in the southern Okanagan Valley.

The last objective evolved during the preparation of the thesis. The thesis was conceptualized in the summer of 1972 with an initial objective of examining the land conversion process in order to suggest legislative possibilities for preserving agricultural land. The introduction of the land freeze in December, 1972, and the subsequent adoption of the Land Commission Act necessitated a reorientation of the thesis. However, it provided a unique opportunity to examine the new agricultural land preservation legislation. Consequently, the last objective was revised in order to evaluate the Land Commission Act, and the fulfillment of the first two objectives provided the basis for this evaluation.

The first chapter of the thesis examines the relevant literature on the land conversion process and presents the conceptual framework of

the study. Chapter II fulfills the first objective by first outlining the historic development of the Okanagan, for both orchard and urban uses; and second, by presenting the results of an analysis which utilized air photo interpretation and computer mapping to illustrate the extent of conflict between urban development and agricultural land capability. The second objective is partly fulfilled in Chapter III, which examines the private sector, with emphasis being placed on the role of the various actors, notably the predevelopment landowner, the speculator/developer, and the urban consumer. The factors involved in these actors' decisions to buy, sell, or develop land are illustrated. The second objective is also partly fulfilled in Chapter IV, which examines the role of public policy (prior to the Land Commission Act) in influencing the land conversion process in British Columbia, and in the southern Okanagan in particular. The chapter outlines the public agencies involved with land use decisions, the purposes of the enabling legislation, and the techniques available to influence land use. As this study views public policy as the key element in the land conversion process, Chapter V first outlines some of the main approaches that have been used to preserve agricultural land in North America. Within this perspective, emphasis is placed upon an examination of the Land Commission Act in order to fulfill the third objective. The rationale for the Act and its expected influence on future decisions in the land conversion process are examined in the light of its probability of success in the preservation of orchard land in the southern Okanagan. Finally, the conclusion and implications of the study are presented.

FOOTNOTES

1. This recognition is illustrated by the large number of publications concerned with environment quality which have appeared since 1950. One of the first books was by Harrison Brown, The Challenge of Man's Future, New York: The Viking Press, 1954; followed eight years later by Rachel Carson's Silent Spring, New York: Crest Books, 1962. Other more recent examples include: Robert and L.T. Rienow, Moment in the Sun, New York: Ballentine Books, 1967; Wesley Marx, The Frail Ocean, New York: Ballentine Books, 1967; and Garrett de Bell, The Environment Handbook, New York: Ballentine Books, 1970.
2. The impact of population growth on the environment has been examined by Garret Hardin (ed.), Population, Evolution, Birth Control, San Francisco: W.H. Freeman and Company, 1964; Paul Ehrlich, The Population Bomb, New York: Ballentine Books, 1968; and Paul Ehrlich and Anne H. Ehrlich, Population, Resources, Environment, 2nd edition, San Francisco: W.H. Freeman and Company, 1972.
3. Derbyshire, K., "Age as a Determinant of the Spatial Preference Surface for High Rise Apartment Locations in Victoria, B.C.", unpublished M.A. thesis in Geography, University of Victoria, 1973.
4. For a general discussion about the growth of urban centres, see H.P. Douglass, The Suburban Trend, New York: Johnson Reprint Company, 1970 (originally published in 1925); Jean Gottman and R.A. Harper (eds.) Metropolis on the Move: Geographers Look at Urban Sprawl. New York: John Wiley and Sons, Inc., 1967; and The Editors of Fortune, The Exploding Metropolis, Garden City, New York: Doubleday and Company, Inc., 1957.
5. Many authors suggested that in addition to the search for amenity, people are also trying to escape the ills of the city. This rural escapism was recognized by William Shakespeare: "Away, away from men and towns, To the wild wood and the downs", As You Like It, 1623. H.P. Douglass also suggested that this was a major motivating force in his book, The Suburban Trend. Reasons for moving to the rural-urban fringe have been examined in more depth by R.J. Pryor, "Urban Fringe Residence: Motivation and Satisfaction in Melbourne", The Australian Geographer, Vol. XI, No. 2, 1969; and Walter T. Martin, The Rural-Urban Fringe: A Study of Adjustments to Residential Location, Eugene, Oregon: The University Press, 1953.
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 10. Winter, G.R., "The Significance of Agriculture to the Economy of British Columbia", Department of Agricultural Economics, University of British Columbia, Vancouver, B.C., paper presented to the B.C.I.A. Annual Meeting, February 6, 1971, p. 2.
 11. Allin, J.S., "Inventory of Agriculture in British Columbia", Extension Services, B.C. Department of Agriculture, paper presented to the Fifteenth B.C. Natural Resources Conference, 1962, unpublished report, p. 2.
 12. For example, see Ian Halkett, "The Preservation of Open Space on the Saanich Peninsula, B.C."; Arno L. Ulmer, "A Comparison of Land Use Changes in Richmond, B.C.: A Study of Urban Expansion Upon and Agricultural Area in a Rural-Urban Fringe", unpublished M.A. thesis, Department of Geography, University of British Columbia, 1964; and Lower Mainland Regional Planning Board of B.C., Land for Farming, New Westminster, B.C., March, 1962.
 13. Cross, W.K., C.F. Goulson and A.E. Loft, (eds.) The British Columbia Source Book, Queens Printers, Victoria, B.C., 1966, pp. 103, 112.
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 15. _____, "The Physical Basis of the Orchard Industry of B.C.", Geographical Bulletin, No. 20, 1963, pp. 5 - 38.
 16. Government of British Columbia, Department of Industrial Development, Trade and Commerce, Economics and Statistics Branch, The Okanagan - Shuswap Region, prepared for the Okanagan Study Committee, Canada - British Columbia Okanagan Basin Study, April, 1971, p. 23.
 17. Ibid, p. 27.
 18. Wilcox, J.C. and C.C. Kelly, "Competition and Compromise in Agriculture", paper presented to the B.C. Natural Resources Conference, Kelowna, B.C., September 5 to 7, 1962; Government of British Columbia, Department of Industry, Trade and Commerce, op. cit., p. 47.
 19. Victoria Times, "Farm Freeze Supported", February 9, 1973, p. 36.
 20. Krueger, "The Physical Basis of the Orchard Industry of B.C.", p. 20.

CHAPTER I

THE RURAL TO URBAN LAND CONVERSION PROCESS:

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Land is a many splendored thing. To some, it is soil - how many bushels of corn will it raise? To others, it is a small piece of the earth's surface, rare as a gem, something to be cherished and enjoyed like an old masterpiece. To still others, it is space - something on which to build a home, an apartment, a shopping centre.

William Scofield, 1963, p. 64.

Spatial relationships in the man-environment system are claimed to be the unifying feature of geographical research. As such, geographers have a fundamental interest in patterns of activity on the earth's surface. "The analysis of land-use patterns has long been one of the basic concerns of the geographer." These patterns exhibit particular forms and locational attributes, resulting from spatial variations of natural features of the land and of man's use of land in both urban and rural environments. Land use patterns are never static. They are especially dynamic in urban areas where the demands for space of increased population are particularly evident.

Urban expansion occurs in both vertical and horizontal dimensions. This study focuses on the horizontal aspects of urban expansion, the concomitant conversion of land from rural to urban uses, and the resulting land use conflicts. An examination of the literature on land conversion and land use conflicts reveals that the problem is best understood and most generally approached from the urban growth point of view. Problems, such as the loss of agricultural land, are viewed as a consequence of urban growth.

LAND USE THEORIES AND URBAN EXPANSION

The expansion of urban areas into the rural hinterland involves the conversion of land from rural to urban uses. A variety of theories or models have been postulated to explain or predict the patterns of development.

GENERAL LAND USE THEORIES

Land use theories or models which have been developed to explain land use patterns are orientated to either the rural or urban spheres. Rural models attempt to explain agricultural land use patterns while urban models explain variations in urban uses. Each of the models is concerned with describing what exists and why, and each model is constructed under a variety of limiting assumptions.

The classic theory of agricultural land use patterns was postulated by Von Thunen in 1826, in which the intensity of use declines with distance from the market place:

for as their transportation costs increased, the operators would have to compensate by reducing their investment. The resulting land use pattern, therefore, would become one of concentric zones or belts surrounding the market, the outer boundary of each zone being determined by the distance at which farmers practicing a particular farming system could no longer make a profit because of increasing transportation costs.⁴

The theory assumes a flat plain with homogeneous land characteristics, a single market, and a transportation system based upon the horse-drawn
5
cart. Distortions in this land use pattern occur as a result of variations of the assumptions which are found in reality.

Sinclair points out that this model of agricultural land use does not apply in the modern world because of developments in the transportation field, organization favouring large scale production, the

existence of multiple markets, regional specialization, and because "competition for land between various agricultural land uses is complicated by increasing competition from nonagricultural uses."⁶ He also suggests that "in many advanced industrialized parts of the world, the basic forces determining agricultural land use near urban areas are associated with urban expansion."⁷

Consequently, Sinclair postulated a reversal of Von Thunen's theory because "the spreading urban region influences rural land use far in advance of the built-up area," and the land use pattern "is the result of the very nature of the expansion process."⁸ This process is a result of: "1) urban and rural land price differences; 2) the flexibility offered to all land users by modern automobile transportation; and 3) the whims and judgements of human beings."⁹ As the urban centre expands, urban uses are able to outbid agriculture for the use of land. With urban uses bringing the highest price for land, farmers with land immediately adjacent to urban areas are reluctant to invest capital in maintaining or upgrading their operations, as the conversion to urban uses is inevitable. Land on the urban periphery is gradually taken out of production in anticipation of sale to urban uses. As a result, Sinclair postulates that agricultural land uses will generally increase in intensity as distance from the urban centre increases due to the uncertainty associated with maintaining agricultural production in areas undergoing active conversion from rural to urban uses.

A variety of other models have been utilized to explain agricultural land use patterns, including: interregional equilibrium models; dynamic economic models; decision making models; input-output models; spatial equilibrium models; and behavioral models. Each model views the system from different points of view and under different assumptions.

Each will have utility under different circumstances. D.W. Harvey examined and summarized each model and stressed that:

if we recognize the all-important fact that geographical patterns are the result of human decisions, then it clearly follows that any theoretical model developed to explain agricultural location patterns must take account of psychological and sociological realities, and this can only be accomplished if the normative theories of agricultural location are made more flexible and blended with the insights provided by the models of behavior.¹⁰

Numerous models have also been developed to explain land use patterns within the urban area. The first, and perhaps the best known, is the Concentric Zone Theory of urban structure proposed by Park and Burgess. "The essence of this model is that as a city grows it expands radially from its centre to form a series of concentric zones."¹¹ These zones include the central business district, light manufacturing, low, medium and high class residential areas and finally a commuters' zone. Burgess later added two additional zones; an agricultural zone within the commuters' zone, and a zone comprising the hinterland or urban centre.¹² As a city grows there is a tendency for each zone to expand outward into the adjacent zone.

In 1939, Hoyt proposed an alternative theory of urban structure, suggesting that land use patterns within a city would occur sectorally rather than in zones. The sectoral model was developed primarily to explain residential land use patterns.¹³ As the city grew there was a tendency for the sectors to expand axially. A third model of urban structure was formulated by Harris and Ullman in 1945, based upon the concept of multiple nuclei. They suggested that a city does not grow outward from a single centre but rather around several distinct points.¹⁴ These nodes will vary from city to city and depend upon such variables as transportation systems and land configuration.

These theories provide some understanding of the process of land

use pattern changes on the agrarian fringes of the cities. However, Boyce asserts that these models are static in nature and do not take "into account the dynamic nature of metropolitan change."¹⁵ He suggests that urban development at the edge of the city should be viewed in terms of an analog to wave theory. Urban development occurs in surges at the periphery which results in land being converted from rural to urban uses.

In summary, an examination of both agricultural and urban land use models reveals that at the edge of a city there is a zone which is neither agricultural nor urban, but rather a transition area between both uses of land. This area has been termed the rural-urban fringe.

DEFINING THE RURAL-URBAN FRINGE

Out toward the fringes and margins of cities comes a region where they begin to be less themselves than they are at the centre, a place where the city looks countryward. No sharp boundary defines it; there is rather a gradual tapering off from the urban type of civilization toward the rural type. It is the city thinned out.¹⁶

Since Douglas first discussed the zone of transition between rural and urban uses, the zone has been described by numerous authors in a variety of different ways, all of which contribute to confusion in our understanding of the nature of urban expansion. The literature abounds with such terms as "fringe, urban fringe, rural fringe, rural-urban fringe, suburban fringe zone, suburban, suburb, slurb, commuting zone, urban shadow and exurbia."¹⁷ Firey suggests that the "rurban fringe" is the area of marginality between alternative types of utilization.¹⁸ Martin defines the rural-urban fringe as "that area of interpenetrating rural and urban land uses peripheral to the modern city."¹⁹ "Suburb and suburban" are terms that have been used to describe the agglomeration of development within the transition zone.²⁰ A number of authors subdivide the area of transition into separate zones such as "fringe

21 and suburb," "satellites and suburbs," "urban fringe and rural-
 23 urban fringe," "urban fringe and urban shadow," and "urban fringe
 24 and rural fringe." 25 Perhaps the most commonly used term to describe
 the entire transition area is the "rural-urban fringe."

In many cases the definition of the same term varies from author to author. An attempt to overcome this confusion was made by Kurtz and Eicher who reviewed a number of definitions that had appeared in the literature and concluded that the "fringe" should be defined as:

that area located beyond the limits of the legal city, in the agricultural hinterland, exhibiting characteristics of urban and rural land uses and with no consistent pattern of farm and non-farm dwellings. The residents are involved in rural and urban occupations, the area is unincorporated, relatively lax zoning and few municipal services are provided. It shows potentialities for population growth in increasing density ratios between urban and rural.²⁶

Further work on defining the rural-urban fringe was conducted by Fryer in which he analyzed sixty case studies to assess the thematic similarities of definitions. He concluded by defining the rural-urban fringe as:

the zone of transition in land use, social and demographic characteristics, lying between (a) the continuously built-up urban and suburban areas of the central city, and (b) the rural hinterland, characterized by the almost complete absence of nonfarm dwellings, occupations and land penetration of urban utility services; uncoordinated zoning or planning regulations; areal extension beyond although contiguous with the political boundary of the central city; and an actual and potential increase in population density, with the current density above that of surrounding rural districts but lower than the central city. These characteristics may differ both zonally and sectorally, and will be modified through time.²⁷

Both definitions describe characteristics of the rural-urban fringe but fail to operationalize any of the components. In contrast, a study of the Lower Mainland around Vancouver specified that a true agricultural area (in the region studied) would have a population

density of less than 0.3 people per acre, and that suburban residential areas would have a density greater than 3.5 persons per acre; therefore, areas in the rural-urban fringe would have a population density between 0.3 and 3.5 people per acre.

THE NATURE OF URBAN EXPANSION

Land use patterns resulting from peripheral urban expansion take a variety of forms, each occurring as a result of different combinations of factors, both private and public. Gregor identified seven spatial patterns of growth, "1) peripheral expansion of the urban core, 2) urban encirclement, 3) leap-frogging, 4) industrial dispersion, 5) planned decentralization, 6) radial expansion along transport lines, and 7) dispersed urban tracts." Harvey and Clark simplified the patterns to three basic types: low density continuous development, ribbon development, and leap-frogging development. In addition to these, development may occur as satellite or new towns.

The term "urban sprawl" has been used to describe all forms of urban expansion; however, the term is usually associated with the low density, discontinuous and scattered form of development. Clawson suggests that urban sprawl is a lack of continuity in expansion and that it connotes a hit or miss process of development. Whyte indicates that sprawl is the lack of pattern of urban growth, while Gottman suggests that sprawl is "urban growth exceeding all bounds." Fellman indicates that "there is irregular, frequently irrational sprawl of the fringe area over the landscape with no concentration of the varied activities in discrete urban clusters."

Many authors deliberately attempt to evoke an emotional response in the reader. Gottman's use of the term "urban sprawl" has a connotation of

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of bad or ugly, while Whyte stresses that "aesthetically, the result is a mess." Woodbury states that this "rapid, almost headlong growth.. is producing a dispersed, land devouring pattern of settlement, which in many respects deserves the derogatory label - urban sprawl." Perhaps the most vivid description of urban sprawl is presented by McHarg in his prediction that urban growth on the outskirts of Baltimore, Maryland will "inexorably cover the landscape with its smear."

This scattered pattern of growth is primarily the result of a large number of independent decisions being made about the development of a city and its periphery. In many areas land speculation is a major factor which influences the pattern of growth and some suggest that this contributes to sprawl. However, "it is the lack of coordination of the decision to speculate which produces sprawl and not the speculation itself." Lack of coordination is the essence of the speculative process. "Land speculators, sprawl, and intermingled idle land are all natural outgrowths of economic and institutional forces, not perversions of them."

Natural and man made features may also contribute to urban sprawl. Rivers, flood plains, canyons, or steep terrain may limit certain areas for development, while gentle sloping land with a view may enhance the potential for development. Accessibility is important as development is more likely to occur in areas served by major transportation arteries. Development may also be complicated by the nature of the land tenure system. A developer has to "deal with discrete tracts in different ownerships," which make it difficult at times to obtain contiguous tracts for development.

Public policy "contributes to sprawl by imbalancing the attractiveness of competing areas." Certain tracts of land may be given an

incentive through their "location with respect to transportation, to water supply, to sewage, and to other services,"⁴⁴ which increase their potential for development, as well as through such policies as taxation and zoning.

Finally, a variety of consumer demands for living space may place greater emphasis on some locations than others. Freedom and privacy associated with large lots in rural areas or a desire to escape the congestion of urban life contribute to the attractiveness of fringe areas. View lots or areas of natural vegetation may contribute to the preference of specific sites.

All these factors work in combination as causes or catalysts for growth in the rural-urban fringe, and ensure that a great deal of the growth occurs in a scattered haphazard fashion. The resulting sprawl is associated with a variety of social and economic problems in both rural and urban areas.

PROBLEMS ASSOCIATED WITH URBAN EXPANSION

The spread of urban centres into the rural-urban fringe, "even when change is orderly, has attendant problems, but when it is disorderly, they multiply manifold."⁴⁵ The literature abounds with examples of these problems, which tend to be examined from either the rural or urban point of view.

Urban Problems

The process of converting land from rural to urban uses is associated with a great appreciation in land values. A study by Schmid showed that farm land valued at \$300.00 per acre would increase to \$10,072.00 per acre when sold for urban purposes; appreciation accounted for \$3,441.00 per acre.⁴⁶ These costs place an initial

heavy economic burden on the prospective home buyer.

One of the predominant themes in the literature is related to the economic costs of servicing expanding and scattered developments. "A sprawled or discontinuous suburban development is more costly and less efficient than a more compact one."⁴⁷ Services include such things as roads, ditches, watermains, sewers, electric power, and telephone. However, "the cost per household of supplying these utilities tends to drop as densities increase."⁴⁸ Moreover, Pearson found that "... servicing costs can be reduced by keeping the lot area to a minimum."⁴⁹

Taxes are levied to pay for the cost of servicing new developments. This places an increasing burden on the farmer in the fringe as his taxes rise accordingly. "The average suburban person receives township services to twice as great a value as the average farm person, but pays only half as much as the average farm person toward the provision of these services."⁵⁰ As the costs of supplying services to scattered rural settlements is relatively high, many services are not provided. The provision of services such as paved roads, sewers, lighting, police and fire protection, parks and schools in the fringe is usually much less than in the city,⁵¹ and most fringe residents voice dissatisfaction with the extent of their services and facilities.⁵² Although the lower services generally mean lower costs, which provides one of the economic incentives for moving to the fringe, it is not long before these services are demanded by the new resident.

Another consequence of urban expansion and urban sprawl is the loss of open space, whether farm land, forests, or other natural features.⁵³ Open spaces, close to urban centres will be in greater demand in the future for both visual and recreational benefits, especially as per capita income and leisure time increase. Whyte suggests that preservation should be pursued because "...open space

must be sought as a positive benefit in its own right, now, and should be primarily justified on this basis."⁵⁶ Aesthetics are another major consideration; a small amount of poorly designed development is sufficient to disfigure an entire area. The problem is to develop and administer policies designed to promote this preservation.

Rural Problems

As urban areas expand they generally encroach upon land which was previously in agricultural production. This loss of agricultural land is viewed by many as one of the main problems associated with urban expansion.

Thus a limited supply of land is being rapidly reduced. On the other hand, the same process is increasing the demand for the agricultural products of the land, also at an increasing rate. As a result of these, as well as other land depleting and demand increasing factors, land for agriculture may become critically scarce.⁵⁷

Kerr found that in Orange County, California, "bearing acreages decreased from 167,500 acres in 1947 to approximately 62,500 by January, 1969."⁵⁸ Even in the Fraser Valley of B.C., "farm land... will continue to give give ground under the onslaught of urban development."⁵⁹

The loss of farmland has two components: the loss of land for actual construction, and land alienated due to scattered developments. "The fragmentation of agricultural land, rather than just encroachment on its edges has been studied intensely because it creates a greater disruption of farming activities and accelerates the rate of land transfer."⁶⁰ Crerar found that in eastern Canada, 382 acres of farmland were lost for each 1000 increase in population, and that this figure was almost four times the area required to accommodate the same population with consolidated subdivision.⁶¹ "Thus arises the frequent

paradox of first class agricultural land standing idle, grown to weeds, too small in size to be farmed because of the surrounding residential lots, yet unmarketable because of the surfeit of lots relative to housing demand." ⁶² The loss of prime agricultural land means that in the future marginal land in other areas will have to be brought into production in order to feed increasing populations. This can only be accomplished through large capital investments.

Some writers argue that the problem is more specific; in some areas land is being lost which has the capability of producing specialty crops such as tree fruits. In some ways, this is a more serious problem, especially if there are very few alternative areas where the crop can be successfully produced. Most of the studies have been concerned with the loss of agricultural land in California, which can produce a wide variety of fruit products and which has also experienced a rapid increase in population. ⁶³ The loss of such specialty crop lands in Canada is perhaps more critical because there are only a few areas where tree fruits can be grown successfully because of climatic ⁶⁴ limitations.

In conclusion, there are two schools of thought on urban sprawl: one argues that it destroys landscape quality, consumes valuable agricultural land, and results in unnecessary social and economic costs; the other stresses that the land use changes are a result of the market mechanism and therefore represents the highest and best use of the land. "Sprawl occurs, in fact, because it is economical in terms of the alternatives available to the occupants." ⁶⁵ However, it is only economical as a result of present public policies and regulations. The problems and costs resulting from urban sprawl are not borne by the direct consumer but by society at large.

THE RURAL TO URBAN LAND CONVERSION PROCESS

Numerous models and theories have been developed to explain either the land conversion process or the resulting pattern of land uses. Most models are explanatory or normative in nature and "approach the conceptualization of urban ⁶⁶ and rural spatial structure in the traditions of economic theory." Basically, land use patterns and land use changes are viewed as the outcome of numerous supply and demand factors operating under the market mechanism system. Land use is determined by the price an operator is prepared to pay, which theoretically results in the highest and best use of land.

In theory under conditions of perfect competition such a system would result in an optimum allocation of land amongst competing uses: values of individual sites would be maximized, since each is used for its highest and best use, and hence, the aggregate of land values will be at a maximum, since no user could gain by switching sites. The spatial pattern of land values would also be the optimal one.⁶⁷

The conversion of land from rural to urban uses is the result of numerous individual decisions. As such, the land conversion process is best understood from the point of view of decision-making theory. This theory has been traditionally based upon economic theory which makes rigid assumptions about man's behavior. However, theories have also been developed emphasizing the behavioral aspects of decision-making, in which the assumptions of economic theory are relaxed.

THE DECISION-MAKING PROCESS

Decision-making is the process of determining, evaluating and choosing between alternative courses of action. A decision-making framework based upon normative economic theory relies on the concept of "economic man", who "is assumed to have full knowledge of his environment, a well organized and stable system of preferences, and

a computational skill to evaluate alternatives in order to maximize the highest point on his preference scale." ⁶⁸ Preference maximization is usually expressed in monetary terms. The framework for economic man is illustrated in Fig. 2, which shows the type of considerations and inputs necessary for a land use decision.

The assumptions inherent in normative economic theory also provide the limitations for its use in the real world. Many authors feel that:

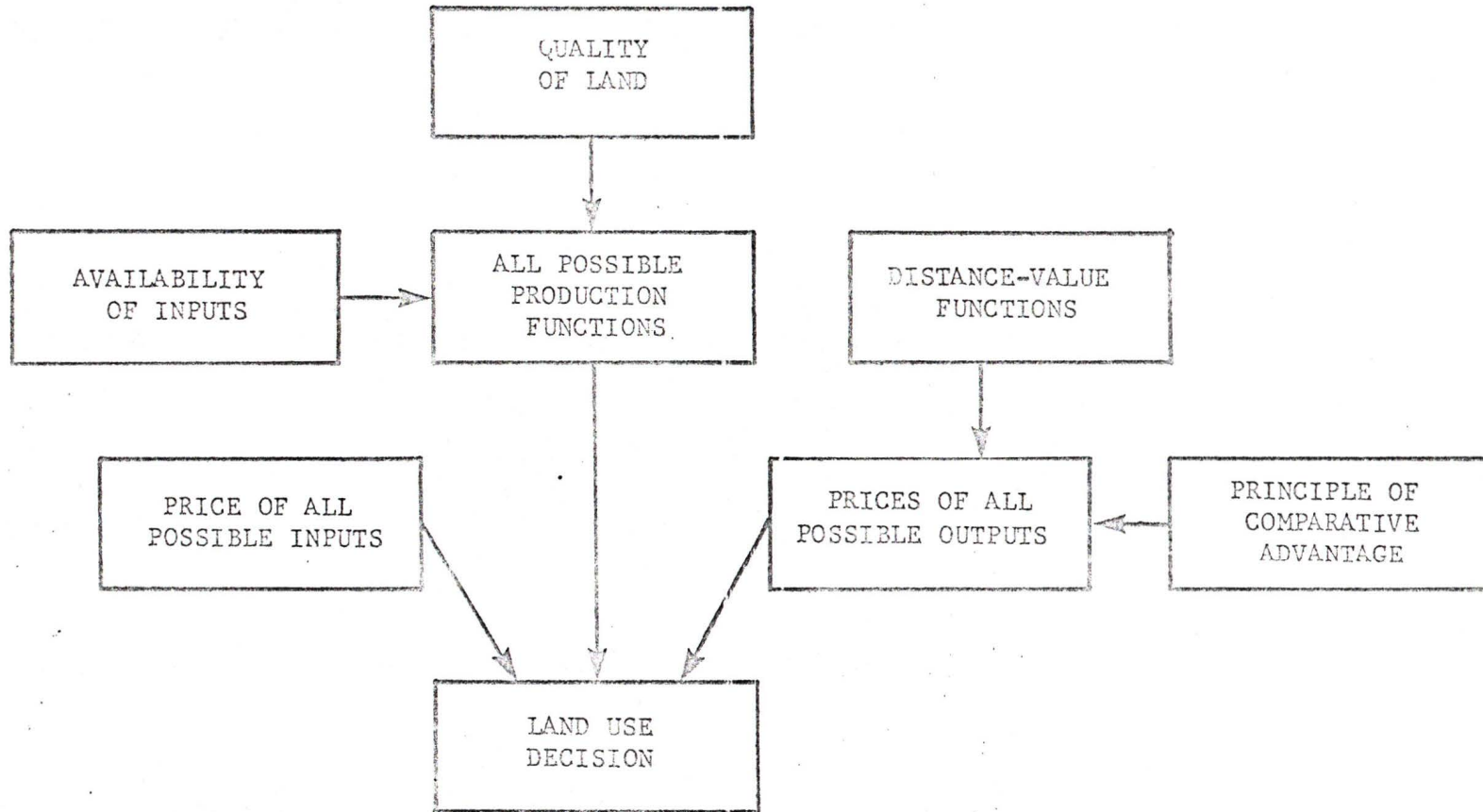
allowance must be made for man's finite abilities to perceive and store information, to compute optimal solutions, and to predict the outcome of future events, even if profit were his only goal. Most likely, however, his goals are multi-dimensional and optimization is not a relevant criterion.⁶⁹

Theoretically, a decision-maker has an immense number of alternatives, or combination of alternatives, open to him. However, in reality this theoretical range of choice is limited to a practical range of choice by a lack of awareness of possible choices, by the institutional restraints of public policy, and by social attitudes and traditions. ⁷⁰ The practical range of choice is further limited by an individual's decision-making criteria, his perception of the environment, personality, age, health, experience, etc.

An individual may also utilize various choice processes in his decision-making. Kates identified three types of choice processes: ⁷¹ conscious; habitual; and unconscious and trivial. A conscious choice process involves the consideration of objectives and of alternative ways of fulfilling the objectives. Habitual choices rely on traditional or repetitive behavior; however, they may have been originally derived from a conscious choice process. Unconscious or trivial choice processes are not identified with any particular assessment or evaluation of alternatives. Most decision-making is the result of the habitual or unconscious choice processes as many day to day decisions do not warrant

FIGURE 2

DECISION FRAMEWORK FOR ECONOMIC MAN



Source: Found, 1971, p.165.

the expenditure of time and effort necessary for conscious choices.

"Choice, however it is made, is made under a variety of conditions of knowledge as to alternatives and outcomes." ⁷² The degree of knowledge of alternatives will depend on an individual's education, age, experience, and background. Assessment of the consequences of alternatives also depends on these factors as well as the probability of occurrence of the outcomes. Decisions are made under conditions of "risk" when all possible outcomes are known and the probability associated with each. When no probability can be allocated to a future outcome, the situation is termed "uncertain." ⁷³ Ciriacy-Wantrup ⁷⁴ suggests that time increases the degree of uncertainty; the probability of success is harder to calculate over longer time periods. Decision-makers tend to resort to habitual choice processes when faced with a ⁷⁵ high degree of uncertainty. Wolpert indicates that:

Within this environment of uncertainty, the farmer /or any other decision-maker/ must make choices and must bear the burden of outcomes. All farmers are faced with similar problems, but actual decisions vary because farmers have different goals, different levels of knowledge and vary in their aversion to risk and uncertainty.⁷⁶

However, even when the same degree of information exists for all decision-makers, decisions will vary because of the "personal perception ⁷⁷ of the same information differs."

Decisions will also vary depending on the criteria that are used to guide the decisions. Normative economic theory assumes that man will try to maximize profits. However, behavioral theory recognizes that this rigid assumption would not always be valid. Instead, a decision- ⁷⁸ maker may use the "regret criterion;" in which he attempts to minimize losses. To overcome the problem of measuring profits or losses only in monetary terms, the concept of utility was developed which recognized

that criteria other than money could be utilized to arrive at a decision.

Behavioral concepts also recognizes that the decision-making process may be limited by the capabilities and desires of an individual to examine all possible alternatives and consequences. As a result, a decision-maker will tend to accept the first "satisfactory" alternative he encounters. ⁷⁹ The decision is based upon an individual's subjective assessment of the situation and past experiences, which in many cases reflect habitual behavior.

An individual's decision-making framework, based on behavioral theory, is a complex combination of education, experience, personality, motives and perception of the situation in which a decision has to be made (Fig. 3). Individuals may react differently when faced with identical situations. In land use terms, "these differences and variations have a spatial dimension and are not randomly distributed among the populations." ⁸⁰ A behavioral approach to decision-making can help to explain which agricultural land is converted to urban uses, and why this conversion occurs in a scattered fashion.

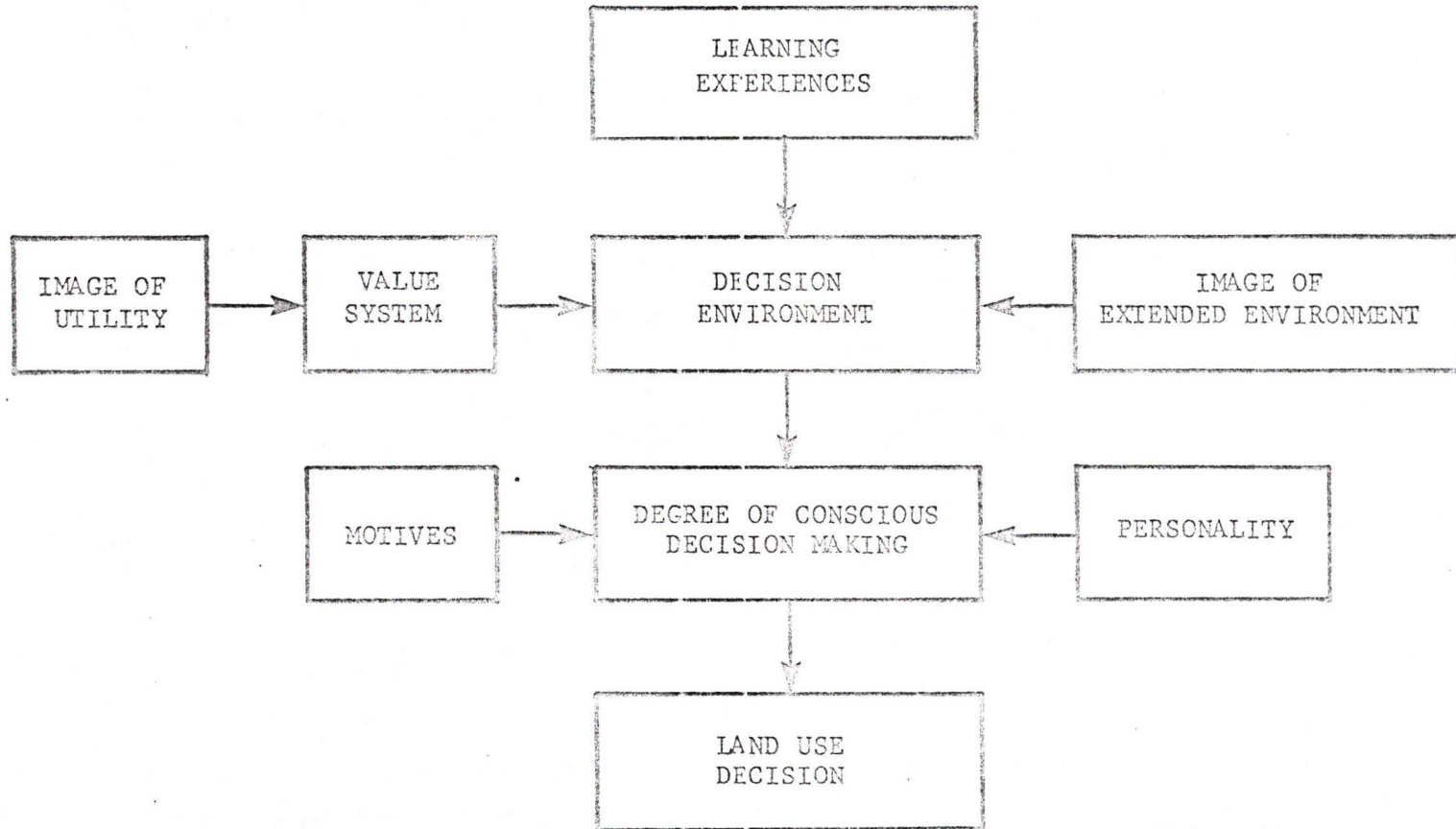
DECISION MODEL OF THE LAND CONVERSION PROCESS

A behavioral approach to urban growth and land use patterns based upon "the decision as the critical point in the behavioral sequence in a locational action," ⁸¹ has been developed by Chapin and his colleagues at the University of North Carolina. This approach proposes a conceptual system based upon a values - behavior patterns - consequence framework.

In its most basic form, and viewing the components in reverse order, this framework seeks explanations for any particular man-induced phenomenon being studied (in this instance, urban growth and development) in terms of human behavior (patterns of activity), with behavior patterns being a function in terms

FIGURE 3

AN INDIVIDUAL'S DECISION MAKING FRAMEWORK



Source: Found, 1971 p.166.

of peoples' values (or the attitudes held concerning these activities). A fourth element in the framework has to do with control processes (strategies or plans) that influence the interplay among the first three components.⁸²

Thus, land use patterns and the conversion of land from one use to another is a result of the decision-making structure of a large number of individuals.

We may conceive the land development pattern of a city at any particular point in time as the cumulative effect of a myriad of decisions and actions by individual entities and groups, consisting of households, institutions, corporate interests and governments.⁸³

The rural to urban land conversion process is viewed as a

complex set of decisions by assorted individuals and groups, guided by his own incentives - the household by basic needs and preferences, the developer-entrepreneur by the profit motive, the predevelopment landowner by a mixture of pecuniary and personal motives.⁸⁴

In the conversion process, land may change hands several times as it is prepared for urban consumption.

From the beginning of the process, when land must be released by willing sellers in different sections of the metropolitan community, through the entire development process involving differing behaviors of real estate men, developers, mortgage financiers, and builders, the combination of possible outcomes multiplies rapidly. Next, according to the opportunities emerging from the past of the development process, households make their locational decisions, some taking up rental accommodations, some acquiring lots and negotiating for a house through an architect or building contractor, and some buying the complete shelter package. Because of imperfect knowledge that both producers and consumers have of this process and the possible variability entering into decisions along the way, the outcomes are not easy to forecast.⁸⁵

In addition, considerable variation can occur in locations and patterns of development.

"The transition of a unit of land on the periphery of an urban area can be traced from an initial state of non-urban use through several stages of development to a state of active residential use by

a household" (Fig.4). The major actors in this decision process are the predevelopment landowner, the developer and the household. The decision-making process of each actor is limited by the range of alternatives open to him at any point in time, and by a variety of factors which serve to influence a decision. Factors influencing decisions can be categorized as to three types: contextual (including socio-economic and public policy), property, and decision agent characteristics. ⁸⁷ Public policy provides the institutional framework within which private decisions are made and establishes regulations which influence these decisions. As such, public policy is viewed as the key element in the land conversion process. If the developing pattern of land use is deemed contrary to the best interest of society, it is public policy which has to be changed to effectuate a different pattern of development. The conceptualization of the land conversion process is illustrated in Fig. 5 and forms the framework for the examination of urban encroachment on orchard land in the southern Okanagan Valley.

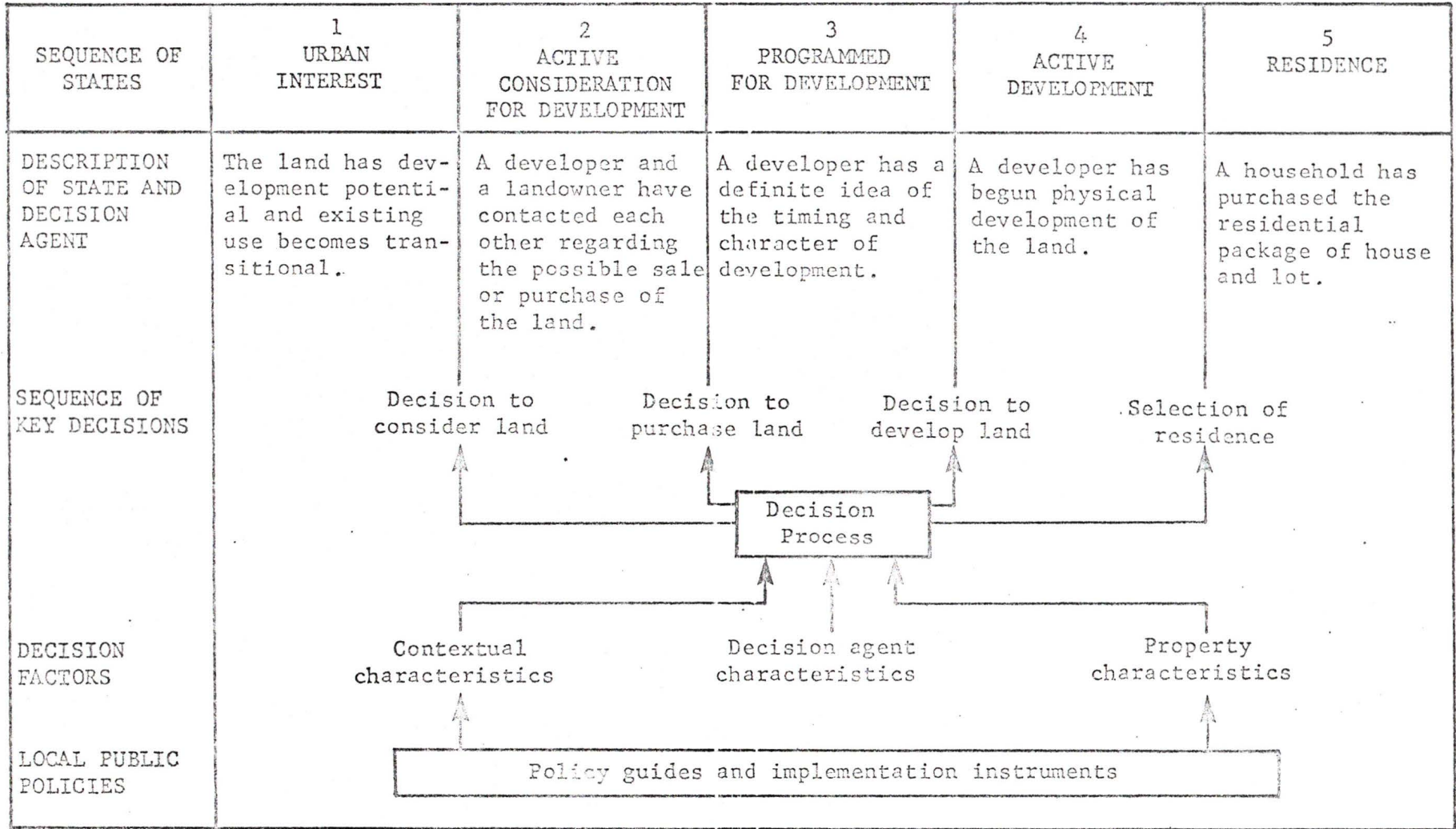
Decision Agents

A large number of actors are involved in the conversion of land from rural to urban uses. For the sake of simplicity, they are grouped into three general categories: the predevelopment landowner, the speculator/developer, and the urban consumer. It must be emphasized that the roles of each group are not clearly demarcated and that a variety of roles may be played by the same individual or group. However, also involved in the process are

land appraisers, surveyors, engineers, land economists, market analysts, lawyers, general insurance agents, building suppliers, contractors, sub-contractors, realtors, brokers, investment

FIGURE 4

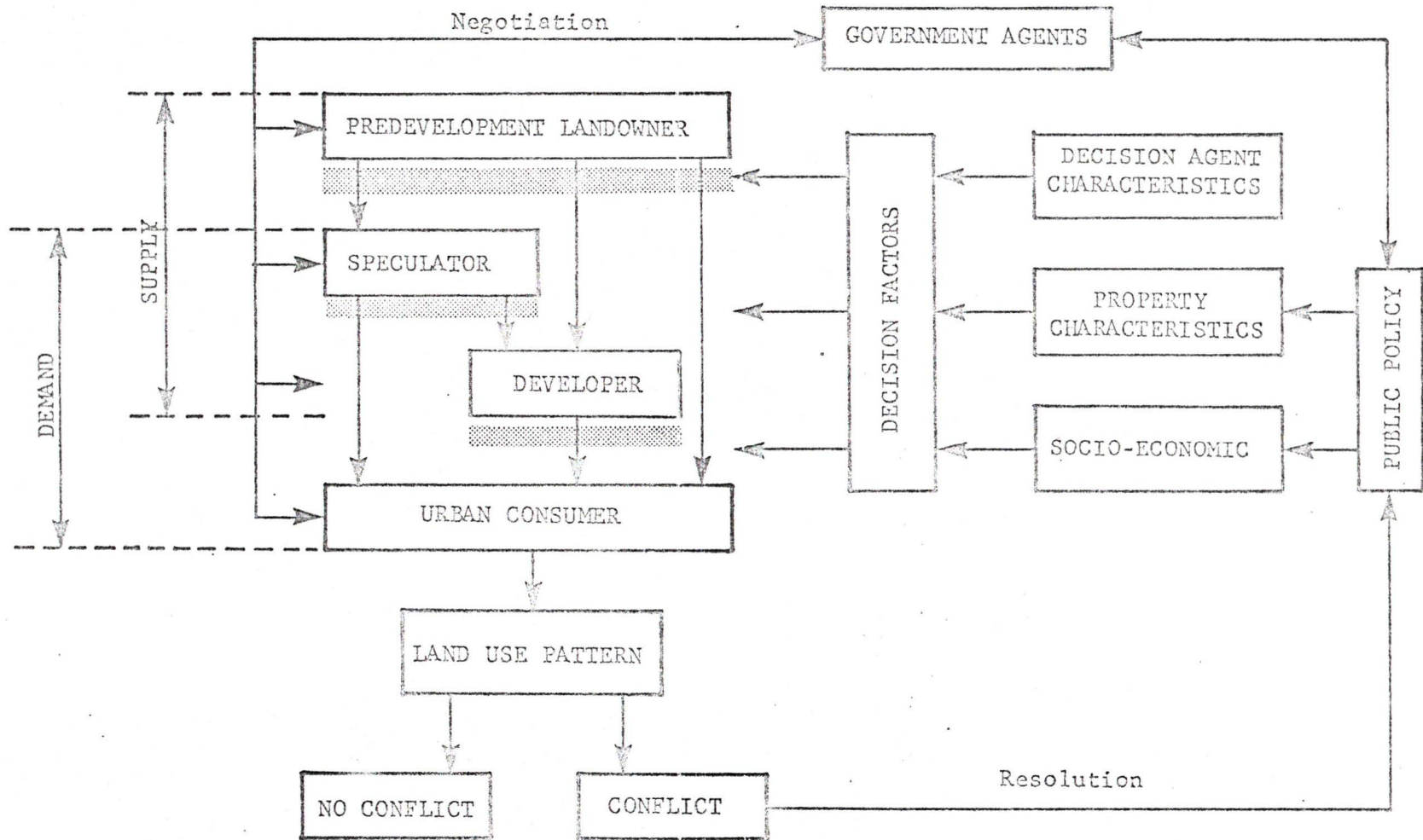
THE RESIDENTIAL LAND CONVERSION PROCESS



Source: Kaiser and Weiss, 1970, p.31.

FIGURE 5

DECISION MODEL OF THE LAND CONVERSION PROCESS



groups, saving and loan associations, financial institutions and utilities companies.⁸⁸

It is beyond the scope of this study to examine each of these in detail.

Each actor has a different role to play in the process and is subject to different motives and desires. The choice of options open to each actor is limited by a variety of factors. These differences may all contribute to an uncoordinated approach to residential development.

The Predevelopment Landowner - The predevelopment landowner is defined as the person owning land for other than urban purposes, either present or future. His decision to sell supplies land for urban purposes. "The landowner's decision to hold or sell the land depends upon income and satisfaction received from the land and his expectations about the land's value compared to its present market value."⁸⁹ A landowner's income involves the operating costs and the prices received for the products produced. "In addition, the landowner's decision also depends on this relative satisfaction from such qualitative aspects as farming as a way of life, the land as a residence, love of the land, or privacy and status."⁹⁰ Thus, a decision to hold or sell is a combination of both economic and social factors and may vary with an individual's position in the life cycle.

The Speculator/Developer - The speculator is an individual or company who buys and holds land for an anticipated future economic gain. Profit is the motivating force, as it is in the entire conversion process. "In one sense, everyone who owns, buys, or sells land (with or without improvements) is a speculator."⁹¹ In fact, it is extremely difficult to distinguish between a farmer, a speculator, and a developer, as..."not all farmers remain genuine farmers as the city encroaches.

Some of them perceive that real estate speculation may be a better business than dairying or vegetable culture.⁹² As urban development approaches, a farmer is more likely to take on a speculative role.

The developer is an individual or company involved in "selecting a site, programming the site for development, and arranging for active development of the site."⁹³ He may purchase land from either the predevelopment landowner or the speculator, as well as owning land for his own speculative purposes. Dudycha feels that:

the developer plays the central role in the residential development process: he is involved in each of the key decisions which result in a parcel of land changing state. Not only does the developer make the initial commitment to a particular location but he also determines the type and price of new development within limits set by planning controls, consumer preferences, and credit availability.⁹⁴

The spatial pattern of development in the rural-urban fringe is a direct result of developers' characteristics. Brodsky suggests that a scattered form of development is more likely to occur when there are a large number of independent developers each making separate locational decisions.⁹⁵ In addition, these developers are likely to spread their risks by building at several separate locations. The choice of a site for development is influenced by a number of factors, including the price of the land, accessibility, public policies, topography and an assessment of urban consumer demands. However,

land development is obviously much more of an ad hoc process than we had previously supposed. The unsystematic manner in which developers approach the production of residential lots indicates that most of the decisions made at this stage in the development process are probably made on the basis of their own experience and general awareness of 'what's going on' in the local development industry rather than on the basis of what new techniques and ideas are available.⁹⁶

The success of a developer depends upon his ability to provide the size, location, and type of residential packages demanded by the

consumer. "Housing is unique among consumer durables. It represents a complex package of goods including a house, a lot, a neighborhood, and a set of spatial relationships linking it to the rest of the urban area."⁹⁷

The developer can also be considered as the major decision maker in the residential development process because he takes the initiative in deciding which tracts of land to develop. The actual development of a site may be limited by public policies and regulations such as zoning by-laws and subdivision regulations. The conversion of land from one use to another requires a number of applications for permits and the appropriate approvals. Some sites may be subject to fewer restrictions than others. The development of land for residential purposes may involve a number of negotiations between the public and private

⁹⁸ sectors. The developer acts as the initiator while the public agencies, who administer policies and regulations, act as accommodators and can only make judgements on each individual application. As such,⁹⁹ the applicant may have the advantage. The size, location and type of development is entirely in the hands of the developer.

The Urban Consumer - The urban consumer is that person or group requiring residential, industrial, and commercial facilities.

The demand for housing at any one time consists of the number of households desiring housing, their ability to pay, and their preferences. In a given urban area, the number of households desiring housing is a function of the rate of household formation, net migration to the area, and deterioration of existing housing or the conversion of existing housing to non-residential use.¹⁰⁰

There are a greater number of decision makers involved at this stage than any other stage in the process; however, the decisions have a smaller impact on the final pattern of development.¹⁰¹

The movement to a new residential location involves two separate processes: the decision to move, and the selection of a residence. ¹⁰²

The decision to move may be prompted by retirement, a new job, a growing family, or a change in income level. The selection of a new residence is based upon a site's "place utility," which is the "net composite of utilities which are derived from an individual's integration at some point in space." ¹⁰³ Place utility involves the

considerations of:

- (1) Dwelling characteristics: size, type design, price tenure arrangements.
- (2) Lot characteristics: size, visual quality.
- (3) Neighbourhood characteristics: social prestige, visual quality.
- (4) Area characteristics: availability and quality of services, accessibility to employment, accessibility to services such as schools, shopping, and recreational facilities. ¹⁰⁴

Chapin and Hightower also suggest that:

in an affluent society, even for the disadvantages, one can expect that two choice factors will become increasingly important in the future: (1) the mix of accessibilities which a particular home site offers, and (2) the amenities it offers. ¹⁰⁵

The selection of a new residence involves two major components: basic requirements, and amenity requirements. Basic requirements include such things as house size and price, while amenity requirements are those that contribute to "the pleasantness of the urban environment as a place in which to live, work and spend one's leisure time." ¹⁰⁶ and includes such things as lot size, view, trees, and accessibility. Many people are finding this mix of requirements in the rural-urban fringe.

Once the consumer has defined his aspirations in terms of basic and amenity requirements he has to conduct a search for a suitable residence. The choice process of residential selection is limited by:

one, the scope of choice and intensity of residential development prescribed in the general plan and by zoning regulations; two, what the producer offers - not only the type of shelter package and the price, but also the accessibility the site offers to major employment centres, schools, and shopping and the proximity of the site to utilities and thoroughfares; three, what the household purse allows; four, what the household activity patterns call for; and five, what the taste norms of the household dictate.¹⁰⁷

The choice has to be made from the vacancies which are available at any one point in time. Invariably the vacancy characteristics do not directly meet the level of aspiration, in which case a choice must be made to continue search procedures or to revise aspirations. If aspirations are relaxed then the choice of a residence is one of "satisficing" rather than maximizing.

Factors Influencing Decisions

The decisions of the various actors outlined above are influenced by a variety of factors, all of which increase or decrease the range of choice open to any one decision maker.

Property Characteristics - "Property characteristics provide an operational means to describe the units of land about which decisions are made."¹⁰⁸ They include physical, location, and institutional characteristics.

Physical characteristics, such as topography, slope, vegetation, view, elevation and soil conditions "are inherent in the land and cannot be changed except by direct modification of the site itself."¹⁰⁹ However, physical characteristics may be a result of site improvements by landscaping or planting trees. Physical attributes may enter into an urban consumer's preference scale in the selection of a residential location.

"Locational characteristics are derived solely from the relative location of the site within the spatial pattern of urban activities."¹¹⁰

Accessibility to such things as employment, schools, shopping and recreation areas may be important considerations in a consumer's choice of a residence. Locational characteristics of various sites may change over time and can be affected by contextual factors.

Institutional characteristics represent the attributes or regulations that are applied to a site by social institutions. These include such things as zoning, subdivision regulations, water supply and taxes, which are a direct result of contextual factors.

Decision Agent Characteristics - Decision agent characteristics are those personal attributes which determine the way an individual will react in a decision-making situation. ¹¹¹ The previous section discussed the variables and concepts which influence an individual's decision-making, including the degree of knowledge, decision criteria, and choice process utilized.

Contextual Factors - "Contextual factors include considerations that limit and determine the overall rate and type of change in the urban community and the general structure of decision agent and property characteristics." ¹¹² They include both socio-economic and public policy factors, which determine the framework within which private decisions are made.

Socio-economic factors refer to the general nature of the economy at any point in time. They include "economic structure and growth prospects of the urban area, community leadership, conditions of the local housing market, local development, industry concentration and competition, and the prevailing psychology of the period." ¹¹³

Public policy refers to the actions of public agencies, administering legislation and regulations, which directly or indirectly influence

land use decisions. Such policies influence land use by changing the socio-economic or property characteristics, or by placing restrictions on private choices.

The Importance of Public Policy in Land Conversion

The land conversion process is a result of land changing ownership and uses through the market mechanism. "The market mechanism does not, however, function in a vacuum. It works within a framework which influences and conditions the size and nature of (a) the demand for land and (b) the supply of usable land." ¹¹⁴ The conversion of land from one use to another is not entirely dictated by economic factors; "institutional factors, customs, and sentiment may be just as powerful ¹¹⁵ as costs and prices in deciding the patterns of land utilization."

Public influence on land utilization is based upon the "inherent right of governments to legislate for the advancement, preservation, and protection of the public health, safety, morals, convenience and welfare." ¹¹⁶ To accomplish this purpose, public policy may directly influence land use decisions through techniques such as eminent domain, zoning and master planning. In addition, numerous other policies designed for other purposes may influence land use. They include such things as subdivision regulations, building codes, taxation, and the provision of services like roads, water, sewer, schools, and parks.

Land conversion requires a series of approvals from public agencies as provided by legislation. Almost every decision regarding the ownership or use of land resources is in some way affected by ¹¹⁷ public policies or restrictions. McBride and Clawson, however, suggest that these approvals are open to negotiation, with the private sector having the advantage because of their role as initiators in the

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 process. "Local public policies might be conceived as attempts to
 control the probabilities of units of land changing from one state to
 119
 another."

Public policy serves to influence the decisions of the various actors in the land conversion process. It may influence the costs or returns to the predevelopment landowner, therefore influencing his decision to hold or sell the land. For a developer, it can influence his capital formation, and therefore, the ease or difficulty of developing certain areas. As a result, it determines the availability of alternatives open to the consumer as well as the mix of opportunities associated with a residential package.

Public influence on land use is a result of the combined effect of all policies and results in some areas being more attractive for development than others. If the developing pattern of land use is deemed undesirable or causes considerable problems, it is a direct result of the structure of public policies rather than contrary to them. In fact, "when all of these factors are combined one should expect a rather hit-or-miss type of suburban development" and we
 120
 should "anticipate exactly what we have experienced: sprawl."

The resolution of these problems may lie in a restructuring of public policies, but "to be effective in guiding patterns of new urban growth, it must be based on a realistic understanding of the develop-
 121
 ment process." Without outright ownership of the land, policies must be designed to influence all of the decisions in the land conversion process. "In order to guide the development process, a mix of policies must affect every decision link in the chain, from the predevelopment landowner's decision to hold or sell his land to the

household's decision to move and its selection of a new residence."

Throughout this chapter, the term "influence" has been used to describe the involvement of the public sector in land use decisions. The term will continue to be used throughout the thesis instead of the more common term "control." First, control implies an absolute and final mandate in the use of land; however, as will be shown later public policy is subject to appeals and changes, and therefore is quite flexible. Second, land use changes are primarily a result of private initiative. Public policy is used to either approve or refuse an application for change; it cannot dictate what use will be made of the land, except in a very broad sense. The term "influence" implies an attempt by the public sector to control land use through the provision of obstacles to land conversion decisions. It is also consistent with the conceptualization of the rural to urban land conversion process developed earlier.

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CHAPTER II

THE SOUTHERN OKANAGAN VALLEY:

LAND USE CAPABILITY, PATTERNS AND CONFLICTS

The greatest danger to our agricultural land in British Columbia is loss from urban sprawl. We see it especially in the southwestern corner of the province in the Okanagan Valley. So far, this urban sprawl has been practically uncontrolled. The Okanagan Valley is, of course, a fine place in which to live, and this fact is being used to attract people from the less attractive parts of Canada. Such people are flowing in like lemmings and may eventually urbanize this whole area.

J.C. Wilcox and C.C. Kelley, 1962, p. 2.

The Okanagan Valley was originally settled in the 1860's as a ranching community. By the 1890's, the settlers found that if irrigation water was applied to the land, tree fruits could be grown successfully because of favourable soil and climatic conditions. This discovery stimulated a change in agricultural activity; the valley has since developed as a major tree fruit producing area, and presently accounts for ninety percent of all fruit production in British Columbia.¹

In recent years, the valley has also become a major tourist resort due to such factors as hot summers, numerous lakes, excellent beaches, availability of fruit, increasing disposable income, and improvements in transportation facilities.² Favourable climatic conditions also make the valley a desirable place to live. A large number of new jobs have been created since 1966 as a result of the "expansion of secondary manufacturing, largely due to the various financial incentives available to such industry under the Federal Regional Development Incentives Act."³

The result has been a rapid increase in population since 1966, with the valley experiencing a growth rate well above the provincial average.

Rapid population growth has created a large demand for land for urban uses. If new development occurs in rural areas and in a scattered haphazard fashion, a large amount of agricultural land may be lost through actual construction and additional farmland may be alienated through proximity to urban areas. The purpose of this chapter is to examine the land use changes that have occurred in the Okanagan Valley and to assess the extent of urban encroachment on orchard land.

PHYSICAL SETTING

The interior plateau of south-central British Columbia, lying between the Cascade Mountains to the west and the Monashee Mountains to the east, is split in a north-south direction by the Okanagan Valley, which extends about 120 miles north of the Canada - United States border. This wide, deep valley originated as "a zone of weakness in the earth's crust, and subsequently deepened by stream and glacial action." As the glaciation receded, the valley bottom was covered with gravel, sand, silt, and clay from glacial outwash. In deeper depressions, such as that occupied by Okanagan Lake, stagnant lobes of ice remained, causing meltwater streams to flow along the sides of the ice and the valley walls, depositing sand, silt and gravel. As the ice in the depressions melted, the deposited material remained, forming terraces along the valley walls and above the level of the residual lakes which remained. These terraces are prominent features at the southern end of Okanagan Lake around Penticton, Summerland and Naramata (Plate 1). The resulting landscape is a long narrow valley with a chain of lakes (Okanagan, Skaha, Vaseux and Osoyoos) in the depressions, which are



Plate 1. Silt terraces and benchland on the east side of Okanagan Lake between Penticton and Naramata.

drained southward by the Okanagan River. Discontinuous areas of gentle sloping land and terraces flank the watercourse on both sides, above which the rugged hills rise quite steeply. The surrounding hills are drained by a number of small creeks, many of which are dammed at higher elevations to provide storage for irrigation water.

The southern part of the valley is characterized by hot summers, mild winters and low precipitation, a result of being in a rainshadow area.⁷ Moist air from the Pacific loses its moisture as it rises over the Coast and Cascade mountains, providing clear skies during the summer. The Okanagan has an "annual average of between 1900 and 2000 hours of sunshine, of which almost 90% is received in the period from May to October."⁸ Cloudy conditions during the winter months combined with the moderating effect of the lakes, results in mild temperatures, especially at lower altitudes.

Annual precipitation varies considerably in a north-south direction and also with elevation. At higher elevations, most of the precipitation occurs in the form of snow during the winter months, which averages over twenty-eight inches; however, the valley bottom receives only eleven inches annually (Table I). Low precipitation and high potential evapotranspiration make irrigation essential for the growing of any agricultural products.

The average temperature in July is 70^o F., but temperatures may rise to over 100^o F., particularly in the Osoyoos area. The average January temperature is 25^o F., however, temperatures vary considerably from year to year. Very low temperatures in the early fall or in the spring can severely damage fruit trees, especially soft fruit such as peaches and apricots, which drastically reduces production in the following summer. Damaging frosts occur about one in seven years; the last

major frost was in 1969 with a virtual complete loss of the peach and apricot crop. Cold air also drains from the surrounding hills into the valleys creating frost pockets in low lying areas and depressions. Microclimatic variations of this nature may limit the areas where tree fruits can be grown successfully. The frost-free season is approximately 100 days, one of the longest in Canada. When a long frost-free season is combined with high heat accumulation during the summer, it provides an environment suitable for the production of tree fruits.

TABLE I

CLIMATIC DATA FOR THE SOUTHERN OKANAGAN VALLEY

MOISTURE (INCHES)	
May-September Precipitation	4
Annual Precipitation	11
Actual Evapotranspiration	11
Potential Evapotranspiration	26
Deficiency	16
°	
MEAN TEMPERATURES (F)	
January	25
July	70
Annual Minimum	-5
°	
FROST-FREE SEASON (ABOVE 32 F)	
Spring	May 1
Fall	October 5
Period	100 days
GROWING SEASON	
Start	March 20
End	October 31
°	
DEGREE DAYS ABOVE 42 F	3,800
CORN HEAT UNITS	3,000

Note: These figures are averages for the southern part of the Okanagan Valley. Microtopographic and microclimatic factors contribute to variations of these figures from one area to another.

Source: Canada Land Inventory, report #3, 1966, pp. 18, 19.

Soils are the result of particular combinations of environmental factors, such as parent material, topography, climate and vegetation. The parent materials of Okanagan soils are gravel, sand, silt, and clay, all of glacial origin. The natural vegetation of the valley bottom is scrub brush and bunch grass, resulting from high temperatures and low precipitation; consequently, the humus content is low in many areas. Vegetation cover increases northward and with elevation. Five major soil groups exist in the Okanagan: brown, dark brown, black, brown podzolic - grey wooded, and groundwater soils. Only three of these, brown, dark brown, and groundwater soils, occur in any significant amount in the southern part of the valley. Brown soils are the most predominant type. Dark brown soils occur in patches in the northern parts of the valley and at higher elevations. Groundwater soils occur in low lying areas adjacent to the lakes and along the river channel. Fruit trees survive best on the sandy, silty and gravelly soils of the brown and dark brown zones, which provide excellent drainage. Clay soils have more drainage problems; their dense structure restricts the root development of peaches and apricots, although other types of fruit are grown quite successfully. Groundwater soils have too much salt and alkaline accumulation to be of any value for tree fruit production.

The physical characteristics of the southern Okanagan Valley may be important considerations in land use decisions. The physical attributes of good soil, favourable climate, and the fairly flat land of the lower slopes and benches, provide the conditions necessary for tree fruit production. However, these attributes, as well as the proximity to warm lakes, are also attractive considerations for urban development. Thus, two conflicting land uses may be competing for the same land area.

AGRICULTURAL CAPABILITY

Before an examination can be made of urban encroachment on orchard land, a definition of orchard land must be developed and land with a natural capability of orchard production delineated. The Canada Land Inventory provides the basis for determining land suitable for orchard production.

THE CANADA LAND INVENTORY

"The Canada Land Inventory [C.L.I.] is a comprehensive survey of land capability and use designed to provide a basis for resource and land use planning." ¹¹ It is a cooperative federal-provincial program administered under the Agricultural Rehabilitation and Development Act (A.R.D.A.), in which the province is responsible for the conduct of the surveys and the federal government is responsible for planning, coordin-
¹² ation and financing. The inventory is based on the concept that land has natural capabilities for various uses and that an inventory of these capabilities is essential for rational planning, especially in areas with a capability for more than one use.

The objective of the Canada Land Inventory is to "classify lands as to their capabilities, to obtain a firm estimate of the extent and location of each land class and to encourage use of C.L.I. data in
¹³ planning." Lands are classified according to their present use and as to their natural physical capability for use in agriculture, forestry, recreation and wildlife (ungulates and waterfowl). Capability classes are based upon bio-physical landform units and ranked on a 1 to 7 scale. The system was designed to reflect national variations; therefore, provincial or regional interpretations must recognize this assumption. The survey was prepared from air photo interpretation and field

observations and information plotted on maps at a scale of 1:50,000. Published maps are prepared at a scale of 1:125,000.

LAND CAPABILITY FOR AGRICULTURE

"The agricultural capability inventory provides information, in the form of maps and statistical tables, on the location, quality, and extent of land suitable for the production of annual field crops, forage, improved pasture and native grazing." ¹⁴ The inventory is based on a 7 class and 13 subclass system designed for use on a national scale and to reflect the ability of the land to produce a wide variety of common field crops. Tree fruits are not included in the list of common field crops. The class represents the degree of limitation for ¹⁵ production, while the subclass indicates the type of limiting factors. Classes 1 to 3 are considered capable of sustained production of common field crops, class 4 has moderate capability, and classes 5, 6, and 7 denote severe limitations on production. The classification system assumes that agriculture will be conducted under present levels of technology, that major reclamation projects will not be undertaken, that capability is not influenced by transportation systems and markets, and that classes may change as additional information becomes available.

The agricultural section of the B.C.L.I. modified the national classification system in order to take into account conditions not experienced in the rest of Canada, such as milder climate and hot dry summers. In many parts of British Columbia, especially the Okanagan Valley, irrigation is essential for agricultural production. In such areas the land was given two ratings, one for dry farming, and a second ¹⁶ which reflected the capability under irrigation. The availability of water or the economic feasibility of putting water on the land was

not taken into account. The irrigated rating was used for the purpose of the thesis. Furthermore, the classification system was expanded to include tree fruit and grape production in areas with a suitable climate, specifically the Okanagan. Under this modification, topography and stoniness were not considered as severe limitations to tree fruit production. However, areas that have factors which can limit tree fruits, such as a high water table, flooding hazard or a frost pocket, may be very suitable for the production of other crops and were rated accordingly. Areas with these limitations should be excluded if consideration is given only to tree fruits and grapes.

The coding system for agricultural capability is based upon landform units in which variations may occur. These variations are identified by a multiple coding system, which indicates the percentage of the unit that falls into each class along with the appropriate limiting factors. For example, an area which is coded $1^5-2x^3-3T^2$ indicates that fifty percent of the area is class 1, thirty percent in class 2 with minor cumulative limitations and twenty percent is class 3 with fertility and adverse topography as limiting factors. A second example, which may be coded $3\frac{6}{M}W-2x^4$, indicates that sixty percent of the area is class 3 with excess water and moisture as limitations, and forty percent is class 2 with minor cumulative limitations. For the purpose of this thesis, the first area would be classified as class 1 (fifty percent or greater in class 1); the second area would be considered as class 3, but would be excluded because the nature of the limiting factors precludes the successful production of tree fruits or grapes.

In the Okanagan, land rated as classes 1 to 4 is primarily found on the level areas of the main valley and the major tributary valleys.

Most of this land is situated on the benches flanking Okanagan and Skaha Lakes, and on the gently sloping land in the Oliver-Osoyoos area. Land with limitations due to excessive groundwater occurs on the deltas at Trout Creek in Summerland, Penticton, and adjacent to the Okanagan River channel from Okanagan Falls to Osoyoos Lake.

CLIMATIC CAPABILITY FOR AGRICULTURE

Climate is one of the most important limitations to agricultural production. Variations in climate determine to a large extent the range of crops that can be grown successfully. British Columbia has the widest range of climate in Canada, and correspondingly the widest range of crops. The national classification system of climatic capability ranks areas from 1 to 7, where 1 is the best climate. The rank indicates the degree of limitation. The system is further classified according to 8 subclasses indicating the type of limitations. 17

This classification system proved inadequate to describe conditions in certain areas of British Columbia, which have milder winters than most other areas in Canada. Accordingly, the B.C.L.I. added four new categories: 1a, 1b, 1c, and 1d, in addition to class 1 as used in the national classification. 18 Class 1d represents the most favourable conditions for agricultural production and, together with classes 1c and 1b, is the only area where tree fruit and grapes can be grown with the degree of success necessary for commercial production. The B.C.L.I. report lists each class along with the names of identifying areas, pertinent climatic data, and the types of crops which can be grown.

Climatic classes are delineated according to land surface units on the basis of physical and biological similarities. Maps of capability classes show dual symbols; one indicates the capability under dry land

farming and the other shows the capability rating under irrigated conditions. Preliminary maps were produced by the climatology section of the B.C.L.I. in January, 1973, at a scale of 1:126,720.

Climatic classes in the Okanagan range from 1d to 7. Greater limitations occur in the northern sections of the valley and at higher elevations. Class 1d is found primarily in the valley bottom around Oliver and Osoyoos, while classes 1b and 1c are found mainly in the Penticton, Summerland and Naramata areas. Soft fruit, such as peaches and apricots, can be grown successfully only on classes 1d and 1c. The boundaries of the climatic classes tend to follow land contours; however, some irregularities do occur. Tributary creeks to the Okanagan River provide channels in which cold air from higher elevations drains into the valley. These areas have correspondingly lower capability ratings. Cold air also settles into depressions causing frost pockets. A large frost pocket is found to the south of Oliver, and other smaller pockets can be found throughout the valley resulting from irregularities in topography. Many commercial orchards are planted in climatically inferior areas, such as frost pockets and class 1a or lower areas. The probability of crop loss is quite high, and has to be overcome by mechanical means, such as smudge pots or wind machines. Fruit grown in these areas is primarily the hardier varieties of apples and pears.

LAND CAPABILITY FOR ORCHARD PRODUCTION

In order to fulfill the first objective of this thesis, it was necessary to define and outline in map form the area of land which would have the capability of supporting orchards. Land capability for orchards is defined as that land which has the physical and climatic attributes necessary for the commercial production of all types of tree

fruit and grapes. Although this capability is not readily identified from B.C.L.I. data it can be deduced from the maps of agricultural capability and of climatic capability by a filtering technique.

The agricultural capability maps in British Columbia were revised to include tree fruits and grapes. However, certain areas have limiting factors which restrict the growth of tree fruit but which still allow the production of other crops. The major limiting factor is excessive groundwater conditions; therefore, these areas were eliminated during the map interpretation stage of analysis. Classes 1 to 4 of the agricultural capability ratings were used to define agricultural land, as these classes were used by the provincial government to define agricultural land when the freeze was placed on the subdivision of farmland by an Order in Council on December 21, 1972. These classes are also being used as the basis of defining agricultural land reserves by the British Columbia Land Commission. These criteria provided the basis for delineating the areas, as shown on the agricultural capability maps which would have the capability to produce tree fruit.

Climate is the major limiting factor for tree fruit production. Climatic capability classes 1b, 1c, and 1d have the necessary climatic conditions for the production of tree fruit. By outlining the extent of these classes and superimposing the result on the agricultural maps, areas were defined that had the necessary physical and climatic attributes for tree fruit production (Fig. 6, located in the map pocket at the back of the thesis). The map can be designated as a general capability rating for tree fruit and grape production, as no attempt was made to differentiate between different types and varieties of fruit, even though specific varieties may require minor differences in soil and climatic characteristics.

METHODOLOGY

The first objective of the thesis is to examine the extent of conflict between urban development and land with a capability of producing tree fruit, and to indicate the land use changes that have occurred during the last decade. In addition, it would also be interesting to examine the relationship between orchard development, land capability, and urban development. A number of specific questions were posed to guide the analysis, including:

1. How much land in the southern Okanagan has the capability of producing tree fruit?
2. What is the pattern of urban development, both past and present?
3. What is the pattern of orchard development, both past and present?
4. What urban land use changes have occurred in the last decade?
5. What agricultural land use changes have occurred in the last decade?
6. How much urban development has occurred on good agricultural land?
7. How much urban development has occurred on previously existing orchards?
8. Are orchards located on good or marginal agricultural land?

To answer these questions, five separate items of information were needed in map form: land capability for orchards; and, orchard development and urban development from two separate years within the last decade. Information on orchard and urban development was obtained from air photographs. Photographs, at a scale of 1" = $\frac{1}{4}$ mile, covering the study area were available for 1963 and 1970.

Base maps, at a scale of 1" = $\frac{1}{4}$ mile, were obtained through the provincial government in Victoria. The pattern of orchards and

vineyards evident on the air photos was transferred to these base maps. Some minor problems were encountered in differentiating young orchards and vineyards from ground crops. Thus, a small amount of error was unavoidable at the air photo interpretation stage. The pattern of urban development was also transferred to the base maps. Areas of dense, compact development were shaded on the base maps, while the more scattered forms of development were located by dots representing individual residential or farm units. The base maps were then photographically reduced to a scale of 1:50,000.

The analysis of the mapped data required the comparison of any two maps. Because of the large number of possible comparisons, it was determined that the best and most versatile method would be a computer mapping system using a grid square comparison technique. In conjunction with the computing centre of the University of Victoria, a program was developed to code and compare maps on a grid square system. The output from the program produces maps and acreage tables for all comparisons. In order to obtain a map output at a scale of 1:50,000 on the line printer, the input had to be coded at the same scale. The line printer produces typewriter characters spaced at ten to the inch horizontally and eight to the inch vertically. Each character is therefore one-eightieth of a square inch in size and represents 4.98 acres at a scale of 1:50,000. The grid system formed the basis for coding the five input maps.

As agricultural land, orchards, and urban development are limited to a narrow band along the main valley, it was not necessary to include the entire study area in the mapping procedure (Fig. 7). A one inch by one inch grid was drawn covering all areas where appropriate

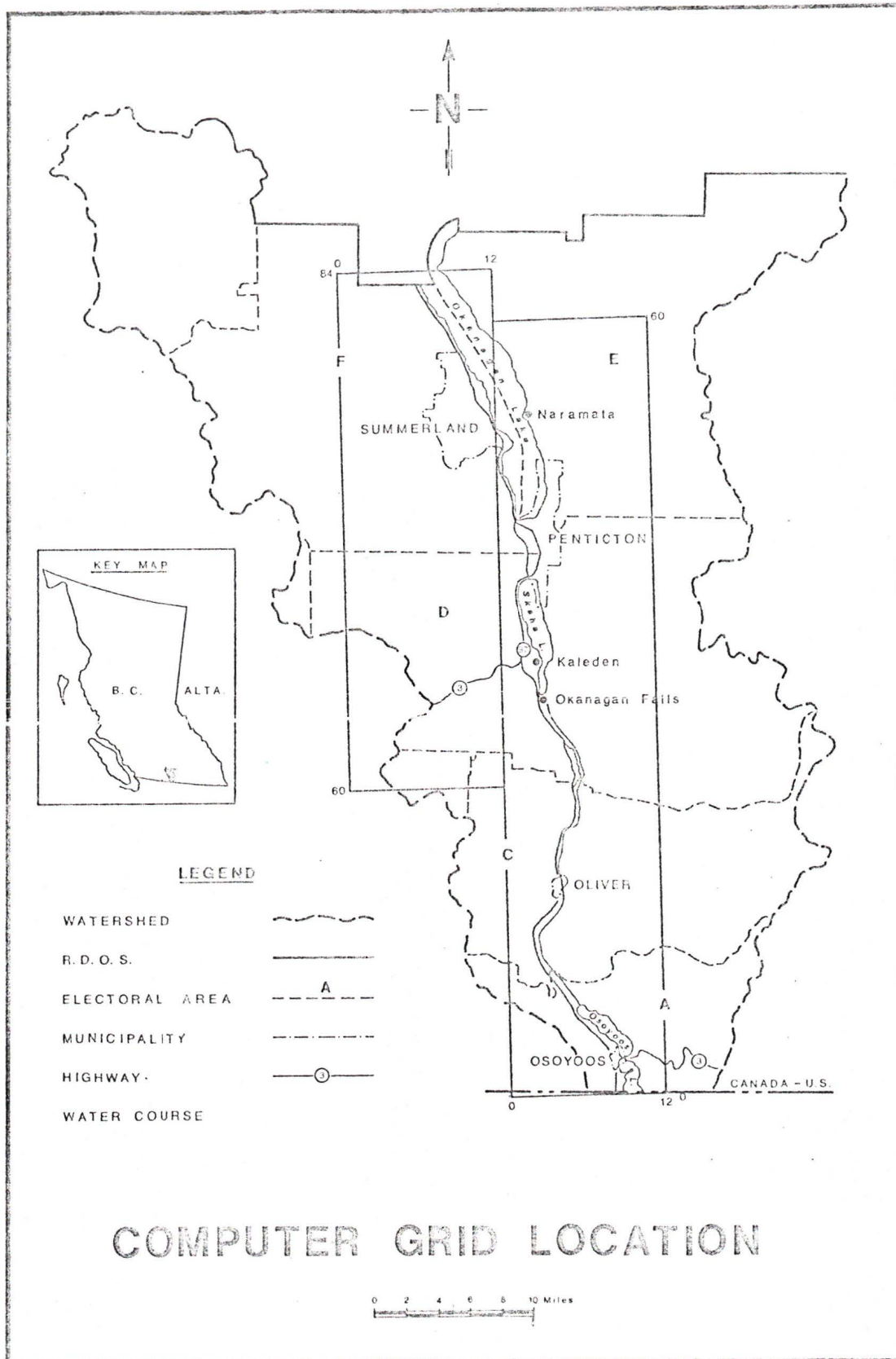


FIGURE 7

information occurred, and each one inch square was further divided into eighty units. The computer printout had a maximum width of twelve inches; therefore, it was necessary to divide the map into two strips which could be spliced together later. Coding was done row by row; a total of 672 rows were coded for each of the five maps. Numerical codes were developed for each map type.

The map of land capability for orchard production (designated LCAP) indicates classes 1 to 4 of the B.C.L.I. and a residual area of marginal capability. The following land classes and coding system were used.

<u>Land Capability Classification</u>	<u>Code</u>
0 (marginal land)	0
1	1
2	2
3	3
4	4

Each grid cell was coded according to the most predominant land class in the grid.

The maps of orchard development in 1963 and 1970 (OH63 and OH70) showed the location of orchards. As the coding system was designed to show either the existence or absence of orchards, only two codes were required. Each grid cell was coded according to the most predominant class.

<u>Orchard Land Classification</u>	<u>Code</u>
no orchards	0
orchards	1

The maps of urban development in 1963 and 1970 (UN63 and UN70) indicated areas of dense development and scattered buildings. Each grid cell was coded according to the density of development, represented by four categories.

<u>Urban Land Categories</u>	<u>Code</u>
0 or 1 dot/grid cell	0
2 or 3 dots/grid cell	1
4, 5, or 6 dots/grid cell	2
7 dots and over, or dense development	3

Category 0 represents over five acres per dwelling and as such can be considered agricultural. Category 1 represents between 1.6 and 2.5 acres per dwelling and can be considered as agricultural or a scattered form of rural living. Category 2 can be considered as a rural or semi-urban form of development as it represents between 0.865 and 1.25 acres per dwelling. Finally, category 3 represents less than 0.72 acres per dwelling and therefore indicates dense urban development.

The program was designed to compare the same grid cell on each map, and to produce a map and acreage table for each comparison. A total of fifteen two way comparisons were possible, of which thirteen produced meaningful results. For example, the program could compare LCAP and UN70; the output would show the acreage of the various densities of urban development that were located on the land capability classes, and a map showing the location of each overlap.

ORCHARD DEVELOPMENT

In the early 1800's the Okanagan Valley was a major fur trade route with very few permanent settlers. The discovery of gold in the Fraser River, and at other interior locations between 1857 and 1860, stimulated settlement of the Okanagan Valley and led to the establishment of large ranches supplying beef and horses to the increasing population. The gold rush ended by the 1880's; however, transportation facilities (road, rail, and steamship) had been developed, opening up the valley to new settlement and helping to change the type of agricultural activity. During this time, settlers found that fruit trees

could be grown successfully, and in 1892, the first commercial orchards²¹ were established around Kelowna and Vernon. The success of these orchards precipitated a land boom promoted by numerous individuals and land companies. Large ranches were purchased, broken up into small lots (five to forty acres), small irrigation schemes installed, and the land sold to new settlers. The land sales were promoted in both eastern Canada and Europe; advertising was so successful in that between 1900 and 1910, the population of the valley increased to 30,000 and land values in some cases increased from an average of \$1 per acre in 1898 to \$1,000 per acre in 1908.²² Rapid overproduction, lack of markets, unsuitable fruit varieties, frost, and poor land and water management brought an end to this land boom by 1914.

In 1918, soldiers returning from World War I demanded assistance from the provincial government. In response to these demands, the government passed the Soldiers Land Act in 1918. "Under the authority of this Act, the government purchased the 22,000 acres now known as the Southern Okanagan Lands Project,"²³ extending from Osoyoos to north of Oliver.²⁴ Extensive irrigation systems were constructed and land, usually in five or ten acre blocks, was sold to ex-service men. After World War II, new projects were also developed, such as the West Bench area near Penticton. The involvement of private land companies and the provincial government during the early stages of agricultural development created a land tenure system characterized by a large number of small farms in the five to ten acre range. This land tenure system has created problems in recent years because the optimum size of a viable orchard unit has increased.

IRRIGATION

Irrigation is essential for any form of intensive agriculture in the Okanagan Valley. Irrigation systems were originally of the open flume type, but in the 1950's pressurized systems and sprinklers were introduced. The expense of converting to these new systems was too great for the irrigation districts and government support was provided. Most irrigation districts rehabilitated their facilities with financial assistance from A.R.D.A. When most of these new systems were constructed they included a dual water supply system, serving both agricultural and domestic requirements.

Agriculture is the most significant consumptive user of water in the Okanagan. Total consumptive use of water in the entire valley in 1970 amounted to 101,000 acre-feet per year, of which 82,000 acre-feet or eighty-one percent is used for agriculture and 10,000 acre-feet for domestic use. ²⁵ In the southern part of the valley, the majority of water is supplied by irrigation districts and incorporated centres, ²⁶ although a few areas are supplied by private systems. North of Vaseux Lake water is obtained primarily from tributary creeks, while the southern area depends on the Okanagan River, Osoyoos Lake or wells for its supply.

The pressurized sprinkler system of irrigation requires considerable manpower to move water lines and sprinklers to various parts of the orchard. A new system, trickle irrigation, is presently being introduced. The system involves a large number of permanent small outlets and water is supplied a drop at a time on a continuous basis. When the system is adopted, it could reduce the labour requirements of an orchard operation.

PRODUCTION

The Okanagan Valley ranks second in importance among the agricultural regions in British Columbia in terms of total farm cash income and approximately fifty percent of this value is derived from the production of tree fruit. More than ninety percent of the total British Columbia tree fruit acreage and total cash from this commodity were produced in this area.²⁷ The southern part of the valley has about forty-six percent of the total orchard acreage, but produces a greater variety of tree fruits than the northern section because of its milder climate.²⁸ Krueger ranks the Summerland-Penticton area (including Naramata and Kaleden) as the best orchard growing area in the valley, and the Oliver-Osoyoos area as second.²⁹

The southern Okanagan produces a wide variety of fruit, including apples, peaches, pears, apricots, cherries, plums, prunes, and grapes. Total production of fruit varies considerably from year to year, depending on weather conditions, disease, or infestation, (Tables II and III). For example, there was no commercial production of peaches in 1969 because of spring frost damage. Potential fruit production has remained relatively stable in spite of declines in orchard acreage; higher production per acre is a result of a trend toward high density planting and better orchard management.

SALES

The British Columbia fruit industry accounts for approximately \$40 million in sales per year, of which \$30 million comes from the sale of fresh fruit and \$10 million from processed fruit.³⁰ These figures do not include the value of fruit sold at roadside stands or directly by the grower. In addition to climatic conditions, the value of the

crop also varies according to fruit quality and market conditions. For example, Table III shows that the F.O.B. price of cherries varied from 24.5 cents per pound in 1971 to 33.5 cents per pound in 1972; apricots were at a high of 19.8 cents per pound in 1969 and dropped to 11.0 cents per pound in 1970. It is interesting to note that the 1969 apricot crop was very low and therefore demand exceeded supply; the reverse was true in 1970.

TABLE II
CROP SIZE AND SALES VALUE OF TREE FRUIT
(nearest \$1,000 and tons)

	1969 Crop		1970 Crop		1971 Crop	
	Tons	\$	Tons	\$	Tons	\$
Apples	100,694	17,569,000	107,886	20,920,000	70,038	15,810,000
Apricots	6*	2,000*	3,305	728,000	2,840	631,000
Cherries	2,652	1,483,000	5,143	2,724,000	5,232	2,563,000
Cookers	766	175,000	801	187,000	787	183,000
Crabapples	423	71,000	263	47,000	350	62,000
Peaches	Nil*	Nil*	4,525	1,237,000	6,460	1,798,000
Pears	3,595	859,000	17,868	3,882,000	16,957	3,206,000
Plums	22	6,900	49	13,000	31	9,000
Prunes	2,155	576,000	3,817	924,000	4,638	913,000
TOTAL	110,313	20,741,000	143,657	30,662,000	107,333	25,175,000

* indicates frost damage

Source: B.C. Tree Fruits Ltd.

The value of the crops shown in Table II represents the price that B.C. Tree Fruits Ltd. receives; grower returns are much less as marketing, production, and packing costs are deducted from these totals. For example, the value of the 1971 crop was \$25,175,000; \$1,449,199 or 5.74

TABLE III
CROP SIZE AND AVERAGE F.O.B AND N.F. PRICES

	1969	1970	1971	1972
CHERRIES				
Pounds	5,303,964	10,285,202	10,463,955	6,405,014
F.O.B.*	28.0	26.5	24.5	33.5
N.F.+	21.2	19.9	17.1	25.2
APRICOTS				
Pounds	11,355	6,609,775	5,679,217	5,211,087
F.O.B.	19.8	11.0	11.1	11.4
N.F.	14.2	6.7	6.1	6.4
PEACHES				
Pounds	-	9,050,902	12,919,865	9,817,495
F.O.B.	-	13.7	13.9	16.8
N.F.	-	8.6	8.3	11.0
PEARS				
Pounds	7,189,072	35,736,462	33,914,400	23,156,209
F.O.B.	12.0	10.9	9.5	10.6
N.F.	6.9	6.4	4.2	6.2
PRUNES				
Pounds	5,309,412	7,633,325	9,275,194	5,331,687
F.O.B.	10.9	12.1	9.8	14.3
N.F.	6.6	7.7	5.0	9.1
COOKERS				
Pounds	1,532,058	1,602,347	1,574,589	2,157,661
F.O.B.	11.4	11.6	11.5	11.6
N.F.	5.3	7.4	6.7	6.7
RED DELICIOUS APPLES				
Pounds	68,769,842	79,855,234	52,814,264	
F.O.B.	8.9	10.7	12.3	
N.F.	3.9	5.6	6.2	
GOLDEN DELICIOUS APPLES				
Pounds	12,480,085	13,709,998	14,078,553	
F.O.B.	9.8	11.8	10.8	
N.F.	3.8	5.9	4.0	
SPARTAN APPLES				
Pounds	23,823,978	22,852,829	15,198,693	
F.O.B.	7.1	7.8	10.8	
N.F.	2.5	3.0	5.0	
WINESAP APPLES				
Pounds	17,963,223	18,825,200	9,341,672	
F.O.B.	6.9	6.8	8.8	
N.F.	1.7	2.2	2.8	
McINTOSH APPLES				
Pounds	61,200,164	65,188,413	35,827,269	
F.O.B.	9.5	9.0	11.4	
N.F.	4.5	4.0	5.4	
NEWTOWN APPLES				
Pounds	4,228,075	3,574,058	2,459,202	
F.O.B.	8.2	8.1	11.9	
N.F.	2.7	3.5	6.4	

* Freight on Board - price received by B.C. Tree Fruits Ltd. (¢ per pound)

+ Naked Fruit - price received by grower (¢ per pound)

Source: B.C. Tree Fruits Ltd.

percent went to marketing costs, \$1,235,731 or 4.89 percent went to production costs, \$9,333,180 or 36.97 percent went to packing costs, and the grower received only \$13,231,433 or 53.4 percent of the total. 31

Table III shows the difference between the average price of fruit as received by B.C. Tree Fruits Ltd. and the average price received by growers. An individual grower may experience financial difficulties if his average returns are lower than those of the industry. Lower returns may be the result of frost damage, poor grade, small size, or from having planted unsuitable varieties. As it takes five to eight years to bring new trees into full production, it is very difficult to anticipate future market conditions and impossible to change crops in response to rapidly changing market prices. Concern has been expressed that the grower is not receiving adequate returns on production and much of the blame is being directed toward the marketing system.

MARKETING

The marketing of British Columbia fruit is the responsibility of a complex structure involving the B.C.F.G.A., the B.C. Fruit Board, B.C. Tree Fruits Ltd., and Sun-Rype Products Ltd. This structure assumes that efficient and orderly marketing can best be accomplished through a central selling agency. In this way, all producers share in the processing, packing, storage, shipping, advertising, and marketing costs, as well as sharing in the returns from the sale of the fruit.

The B.C.F.G.A. is an association of all growers wherein each member has full voting privileges regardless of the size of orchard owned and operated. The Association is comprised of 2,900 registered growers in eighteen locals; six locals, with 1351 members, are located

in the Southern Okanagan Valley. The Association elects three members at its annual meeting to serve on the B.C. Fruit Board. The B.C. Fruit Board operates under the authority of the British Columbia Natural Products Marketing Act, and the Agricultural Products Marketing Act of Canada. The Board licences numerous packing houses to process, pack, and store fruit. Under the legislation, growers are allowed to sell fruit only through B.C. Tree Fruits Ltd. or "within their own trading area to roadside stand operators and/or local retail stores, as well as from the farm gate, without a licence."³² The B.C. Fruit Board has designated B.C. Tree Fruits Ltd. as the only selling agency for B.C. fruit, and Sun-Rype Products Ltd. as the processing company for low grade fruit. B.C. fruit is sold on both national and international markets.

The marketing system of B.C. fruit has come under heavy criticism from a number of growers who claim that the selling agency is too restrictive in its choice of customers and as a result they are not getting returns which can even cover the cost of production. Other arguments indicate that packing costs are too high, that elaborate packaging is unnecessary especially for fruit sold to local markets, and that local markets could be expanded by selling orchard-run fruit.³³

LAND USE CHANGE

The number of orchards in the southern Okanagan fluctuates over time; some orchards have been subdivided, others are amalgamated to form more economically viable units, and new areas are also brought into production. Since 1960, the number of growers registered with the B.C.F.G.A. has varied from a high of 1,590 in 1964 to a low of 1,351 in 1973 (Table IV). In 1973, the Oliver area had the largest number of

TABLE IV

CHANGE IN THE NUMBER OF GROWERS, TOTAL ACREAGE, AND AVERAGE SIZE OF ORCHARDS: 1960-1973

Area	1960			1964			1971			1972			1973		
	#	Acres	Av.	#	Acres	Av.	#	Acres	Av.	#	Acres	Av.	#	Acres	Av.
Summerland	399	2,939.6	7.4	409	2,924.4	7.2	407	3,031.5	7.5	325	2,981.9	9.2	354	2,935.9	8.29
%	26.7	22.7		25.7	22.8		26.9	22.3		23.0	22.6		26.2	23.0	
Naramata	108	968.1	8.9	115	961.1	8.4	72	918.3	12.8	85	918.6	10.8	88	915.4	10.40
%	7.2	7.5		7.2	7.5		4.8	6.7		6.0	7.0		6.5	7.2	
Penticton	329	2,280.9	6.9	322	2,189.8	6.8	293	2,181.7	7.5	284	2,147.1	7.6	266	1,895.1	7.12
%	22.0	17.6		20.3	17.0		19.4	16.0		20.1	16.3		19.7	14.9	
Kal-Ok. Falls	72	874.5	12.1	105	852.2	8.1	89	696.8	7.8	86	675.6	7.9	79	688.5	8.46
%	4.8	6.7		6.6	6.6		5.19	5.1		6.1	5.1		5.8	5.2	
Oliver	369	3,590.4	9.7	408	3,597.7	8.8	411	3,973.1	9.7	420	3,883.4	9.3	361	3,739.5	10.36
%	24.7	27.7		25.7	28.0		27.2	29.2		29.7	29.1		26.7	29.3	
Osoyoos	219	2,316.7	10.6	231	2,328.9	10.1	239	2,808.9	11.8	215	2,592.1	12.1	203	2,592.3	12.77
%	14.6	17.9		14.5	18.1		15.8	20.6		15.2	19.4		15.0	20.3	
TOTAL	1,496	12,970.2	8.7	1,590	12,854.1	8.1	1,511	13,610.3	9.0	1,415	13,198.7	9.3	1,351	12,746.7	9.4
%	100.0	100.0		100.0	100.0		100.0	100.0		100.0	100.0		100.0	100.0	

Source: B.C. Tree Fruits Ltd., and B.C. Department of Agriculture, Orchard Survey, 1960 and 1964

growers, with 361 or 29.3 percent of the total, followed by the Summerland and Osoyoos areas, with 354 and 203, respectively.

The total acreage registered has also changed considerably; the largest acreage was recorded in 1971 (13,610.3 acres), but dropped to 12,746.7 acres in 1973. Between 1960 and 1973, the Oliver-Osoyoos area recorded an increase in acreage, while all other areas recorded a decrease.

The average size of an orchard has varied in conjunction with the number of growers and the total acreage, and, it has been increasing since 1964. In 1973, the average size of an orchard was 9.4 acres, which is considered marginal as a viable economic unit.³⁴ However, the average size varies in each area, from a low of 7.12 acres in Penticton to a high of 12.77 acres in the Osoyoos area. From 1971 to 1973, the average size has increased around Osoyoos, Oliver, Kaleden, Okanagan Falls, and Summerland, while around Penticton and Naramata it has decreased.

Table V shows the distribution of orchards by size categories. Over sixty percent of all orchards are less than ten acres in size, and over eighty percent are less than fifteen acres. The economic viability of most orchards in the southern Okanagan is questionable, and many growers must suffer from financial problems. Only two orchards are over one hundred acres in size; one is located in the Naramata area and the other in the Osoyoos area. The Table also shows that these figures vary from area to area; for example, in 1973 Kaleden and Okanagan Falls had the greatest percentage of orchards below ten acres, followed by Penticton. The Kaleden-Okanagan Falls area had fifty-eight percent of the orchards below five acres in size. Many of these smaller orchards are not operated on a commercial basis, but may be considered as hobby farms.

The air photo interpretation and computer mapping analysis

TABLE V
DISTRIBUTION OF ORCHARDS BY SIZE CATEGORY: 1973

Area	ORCHARD SIZE (ACRES)										Total	%*	
	1-	2-	5-	10-	15-	20-	30-	50-	75-	100+			
Summerland	#† 62	83	99	56	20	23	8	3				354	26.2
	% 17.5	23.5	28.0	15.8	5.7	6.5	2.3	0.9				100.0	
Naramata	# 7	22	28	19	5	6	1					88	6.51
	% 8.0	25.0	31.8	20.5	5.7	6.8	1.1				1.1	100.0	
Penticton	# 58	72	72	31	16	11	4	1		1		266	19.69
	% 21.8	27.1	27.1	11.7	6.0	4.1	1.5	0.9		0.4		100.0	
Kal-Ok. Falls	# 8	38	16	6	1	6	3	1				79	5.85
	% 10.1	48.1	20.3	7.6	1.3	7.6	3.8	1.3				100.0	
Oliver	# 21	75	80	118	28	30	5	3				361	26.72
	% 5.8	20.8	22.2	32.7	7.8	8.3	1.7	0.8				100.0	
Osoyoos	# 17	19	48	56	26	27	6	2		1	1	203	15.03
	% 8.4	9.4	23.7	27.6	12.8	13.3	3.0	1.0		0.5	0.5	100.0	
TOTAL	# 173	309	343	285	96	103	28	10	2	2	2	1,351	100.00
	% 12.8	22.9	25.4	21.1	7.1	7.6	2.1	0.7	0.2	0.2	0.2	100.0	

Note: Table shows planted acreage and number of growers in 1973 as registered with the B.C.F.G.A. Growers with one acre or more planted in tree fruits are registered with the B.C.F.G.A.

*% of total number of orchards

†% of number of orchards in each area

Source: British Columbia Fruit Growers Association

outlined the area of orchards in 1963 and 1970, and provided a comparison between years. In 1963, there was a total of 16,314 acres of land classified as orchard or vineyard, but by 1970 the area had dropped to 15,000 acres, a net loss of 1,315 acres (Table VI).

TABLE VI
ORCHARD DEVELOPMENT IN 1963 AND 1970

		OH63		
		0	1	TOTAL
0	0	383,036.63	3,550.74	386,587.37
H				
7	1	2,236.02	12,763.74	14,999.96
0				
TOTAL		385,272.65	16,314.48	401,587.13

Note: OH63 1 and OH70 1 = Orchards

Source: Computer Analysis

These figures are somewhat higher than the totals presented in the above tables because the air photo analysis generalized areas on the basis of a five acre grid, which may have included roadways, homesites, other buildings, non-orchard areas, vineyards, and orchards of under one acre in size. The location of orchard areas in both 1963 and 1970 is shown in Fig. 8. Orchards in both years were almost entirely located inside municipal and irrigation district boundaries because of the dependence on a community water supply for irrigation purposes. The most concentrated orchard areas are in the vicinity of Penticton, Summerland, Naramata (Plate 2), and from Oliver to Osoyoos (Plate 3). Orchards are more scattered in the Kaleden-Okanagan Falls area.

The difference of 1,315 acres between 1963 and 1970 represents a net loss of orchard acreage, and includes an increase of 2,236 acres and a loss of 3,550 acres. A considerable amount of the gross loss may be a

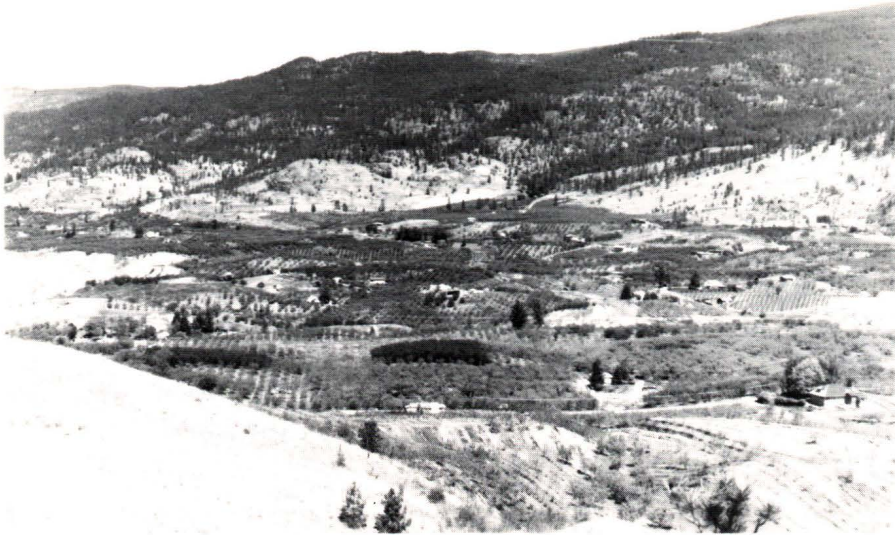


Plate 2. Orchard landscape between Penticton and Naramata.



Plate 3. Orchard landscape between Oliver and Osoyoos.

result of new urban development or speculation. Most of the decrease of acreage occurred in the Penticton, Kaleden, and Summerland areas, while scattered decreases occurred around Oliver, Osoyoos, and Naramata. The most concentrated areas of increase were on the Indian Reserve to the north-east of Oliver, and on the east side of Okanagan River between Oliver and Osoyoos. Both areas are planted in grapes. A number of orchards are being converted to vineyards as a result of the increasing demand for wine, and the British Columbia Liquor Control Board policy requiring that sixty-five percent of the grapes used in commercial wine production in the province must be grown within B.C. Fairly stable prices and an assured market indicate that further expansion of vineyards can be expected.

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For many orchardists in the southern Okanagan, orcharding can be considered a marginal economic activity. The industry is characterized by a large number of small orchards and a small average size of orchard; only 17.9 percent of the orchards are over fifteen acres in size, an acreage considered necessary for an economic unit. Fruit production and fruit prices fluctuate widely. Operating costs are increasing drastically while returns remain relatively low.

URBAN DEVELOPMENT

Until the early 1960's urban growth in the southern Okanagan was fairly slow. The municipalities of Summerland, Penticton, Oliver and Osoyoos acted primarily as service centres for the surrounding agricultural communities and growth was concentrated within these centres. However, rapid changes have occurred in the last decade as a result of economic diversification and an increase in tourist travel. Population has increased rapidly, placing greater demands for land for urban

development. Urban growth has spread out from the main centres and now occurs in a scattered fashion throughout the valley.

ECONOMIC DEVELOPMENT

In the past, the economic development of the Okanagan was based upon the processing of primary resources from forestry and agriculture. In recent years, the economy has diversified to include mining, tourism, secondary manufacturing, and service industries. Perhaps the major change has been towards secondary manufacturing as a result of federal incentives programs which created many new jobs. "In 1956, the federal government instituted the Area Development Incentives Act to provide government grants and subsidies to both new and expanding industries in areas of high unemployment." Due in part to the depressed conditions in the fruit and vegetable industry and the seasonal nature of the industry, the Okanagan Valley was included in the Federal Government Regional Incentives Programme between 1965 and 1971. The result was the establishment of several industries producing mobile homes, campers, boats, prefabricated houses, furniture, etc. Most of this growth was centered in Kelowna and, to a lesser degree, Penticton. The multiplier effect of this growth through the economy also results in the expansion of trade, service and ancillary industries. One of the advantages of locating an industry in the Okanagan is the quality of life available to its employees; there are all the amenities of urban living available in the main centres as well as the opportunity of living in a rural environment.

The tourist industry has also become a major activity in the Okanagan Valley, especially since the Rogers Pass section of the Trans-Canada highway was completed in 1962. At present, tourism is the third

most important element in the regional economy. The hot and sunny summers, numerous warm lakes, excellent beaches and the opportunity to pick fresh fruit are major factors in a tourist's decision to visit the Okanagan. Many decide to return on a permanent basis. The importance of orchards for tourism was shown in a visitor's survey conducted in 1971, in which sixty-two percent of the visitors ranked the opportunity to pick fresh fruit as a high or medium rank in their reasons for visiting the Okanagan. In addition, forty-one percent ranked the orchard landscape in the medium and high categories.

POPULATION GROWTH

The growth of employment in the manufacturing and tourism sectors of the economy has made the Okanagan Valley one of the fastest growing areas in B.C. Table VII shows population trends for incorporated areas, electoral areas and hamlets between 1951 and 1971. Summerland experienced the highest population growth rate of all incorporated areas between 1966 and 1971 (21.1 percent) followed closely by Penticton (18.4 percent). Electoral area A, around Osoyoos, was the fastest growing electoral area, with a 38.2 percent increase between 1966 and 1971. Kaleden experienced the highest growth rate of all areas (50.2 percent increase), as a result of the large number of subdivisions that have been developed in the area. In-migration provided the major component of all population growth.

The regional population can be divided into rural and urban components. Until 1966, the proportion of the regional population living in urban areas was increasing; however, this trend has reversed since 1966. The rate of rural population increase in the Okanagan is greater than either the provincial or national figures. The change in population by age group shows that the greatest increase took place

TABLE VII

POPULATION TRENDS OF INCORPORATED AREAS,
ELECTORAL AREAS*, AND UNICORPORATED PLACES

Incorporated Areas	1951		1956		1961		1966		1971	
	No.	No.	%Change	No.	%Change	No.	%Change	No.	%Change	
Penticton	10,548	11,894	12.8	13,859	16.5	15,330+	10.6	18,146	18.4	
Summerland	3,567	3,893	9.1	4,307	10.6	4,585	6.5	5,551	21.1	
Oliver	1,000	1,147	14.7	1,774	54.7	1,563	-11.9	1,615	3.3	
Osoyoos	899	860	-4.3	1,022	18.8	1,166+	14.1	1,285	10.2	
Electoral Area A	1,034	1,426	37.9	1,452	1.8	1,637	12.7	2,263	38.2	
C	2,505	2,267	-9.5	2,533	11.7	2,829	11.7	3,368	19.1	
D	734	838	14.2	1,176	28.7	1,381	17.4	1,712	24.0	
E	717	698	-2.7	790	13.2	796	0.8	908	14.1	
F	480	930	93.8	770	-17.2	910	18.2	1,045	12.9	
Total Region	21,484	23,953	11.5	27,683	15.6	30,197	9.1	35,983	19.2	
Unicorporated Areas (included in electoral areas above)										
West Bench		356		636	78.7	762	19.8	783	2.8	
Naramata				346		399	15.3	461	15.5	
Kaleden		299		350	17.1	426	21.7	640	50.2	
Okanagan Falls		254		353	39.0	660	87.0	621	-5.9	

*Excluding Indian Reserves

+ Change of boundaries between 1961 and 1966

Source: Regional District of Okanagan - Similkameen, Population: Survey and Analysis Towards the Regional Plan, Nov., 1972, p. 6.

in the fifty-five to sixty-four, and over sixty-five age brackets (Fig. 9), indicating that the area is becoming a favourite retirement centre. It is also interesting to note that there was a net out-migration in the twenty to twenty-four, and twenty-five to thirty-four age groups, as younger people tend to leave the region in order to further their education, or to seek better job opportunities.

URBAN GROWTH

The rapid expansion of population in the southern Okanagan is increasing the demands on land for new living space. In response to this demand, many orchardists have been only too willing to subdivide their land, or to sell to speculators and developers. Land has been subdivided, new buildings constructed, and many orchard areas have been converted to urban uses.

Subdivision Trends

The first stage in the conversion of land from agricultural to urban uses is the subdivision of land into marketable building sites. In the southern Okanagan, a number of lots have been created in a variety of sizes to meet the demand for both urban and rural styles of living. Subdivision of land in rural areas has increased in the last decade. In the period between 1963 and 1971, a total of 1,619 lots under ten acres in size were created in rural areas covering 1,596.1 acres, an average lot size of 0.99 of an acre (Table VIII). Of the total number of lots, 959 (fifty-nine percent) were 0.49 of an acre or less, and 660 (forty-one percent) were one-half an acre or larger. Electoral area A, around Osoyoos, and electoral area D, around Kaleden and Okanagan Falls, recorded the largest number of lots created, 578 and 419, respectively. The smallest average size of lot occurred in the Osoyoos area, and the

FIGURE 9

REGIONAL POPULATION CHANGE, 1961 - 1971

AGE GROUP	POP. CHANGE	% OF GROUP
10-14	+907	21.3
15-19	+675	16.3
20-24	-735	26.1
25-34	-141	3.3
35-44	+1202	25.2
45-54	+956	18.4
55-64	+1241	24.8
65+	+1959	32.8



Population increase resulting from net migration into the region



Population decrease resulting from net migration out of the region

Note: total regional population grew by 27.3% between 1961 and 1971

Source: Regional District of Okanagan - Similkameen, Population: Survey and Analysis Towards the Regional Plan, November, 1972, p. 5a.

TABLE VIII

RURAL LAND SUBDIVISION UNDER 10 ACRES, 1963-1971: DISTRIBUTION OF LOT SIZE

Electoral Area	Lots	Lot Size (acres)										Total #	Total Acres	Av. Size
		.49	%*	.5- .99	%	1.0- 1.99	%	2.0- 4.99	%	5.0- 9.99	%			
A	#	447	77.3	43	7.4	36	6.2	42	7.3	10	1.7	578	420.2	.73
	%+	46.6		14.9		27.3		22.7		18.9		35.7	26.3	
C	#	115	38.9	66	22.3	33	11.1	54	18.2	28	9.5	296	466.5	1.58
	%	12.0		22.9		25.0		29.2		50.9		18.3	29.2	
D	#	226	53.9	97	23.2	33	7.9	56	13.4	7	1.7	419	388.4	.93
	%	23.6		33.7		25.0		30.3		12.7		25.9	24.3	
E	#	83	57.6	18	12.5	10	6.9	27	18.8	6	4.2	144	175.5	1.22
	%	8.7		6.3		7.6		14.6		10.9		8.9	11.0	
F	#	88	48.8	64	35.2	20	11.0	6	3.3	4	2.2	182	145.4	.80
	%	9.2		22.2		15.2		3.2		7.3		11.2	9.1	
TOTAL	#	959	59.2	288	17.8	132	8.2	185	11.4	55	3.4	1619	1596.1	.99
	%	100		100		100		100		100		100.0	100.0	

Source: Regional District of Okanagan - Similkameen

* % of the number of lots in each electoral area

+ % of the number of lots in each size category

largest average size occurred around Oliver. Many of the lots created in rural areas are intended for rural residences or hobby farms. This type of development results in low population densities and the consumption of a large amount of land per person.

Another aspect of the subdivision of land is the number of lots created in each subdivision (Table IX). The average number of lots per rural subdivision was 2.79. The Summerland and Kaleden-Okanagan Falls areas recorded the largest average number of lots per subdivision, while the lowest was recorded in the Oliver area. Of the total number of subdivisions, 535 (92.3 percent) included less than six lots, while only 45 subdivisions included six or more lots.

Rural subdivisions in the southern Okanagan are quite small, in terms of both the number of lots and total acreage (Plate 4). The fragmented land tenure system makes it difficult for developers to accumulate large tracts of land. Provincial legislation may also explain the small size of subdivisions, as subdivisions of five lots or more, and over one hundred acres, can only be offered for sale after the "subdivision plan has been filed in the Land Registry Office, and after a prospectus in the form and with the content required by the Real Estate Act has been delivered to and accepted and filed by the Superintendent of Insurance." ⁴² Subdivisions with less than five lots are not required to follow this procedure. Therefore, small developers or individual orchardists find it quite easy to subdivide land. It may also provide an incentive for developers to have small subdivisions at various locations. The large number of small subdivisions occur in a scattered fashion throughout the valley, which can alienate a considerable amount of land in addition to the land taken out of production by actual subdivisions.

TABLE I
 RURAL LAND SUBDIVISION UNDER 10 ACRES, 1963 - 1971: DISTRIBUTION OF SUBDIVISION SIZE

Electoral Area	Subdivision Size (# of lots)														Total #	Av. Size: Acres	Av. # Lots Per Sub'd	
	Subdivisions	1-2	%*	3-5	%	6-10	%	11-12	%	21-30	%	31-40	%	40+				%
A	#	133	71.5	37	19.9	3	1.6	8	4.3	3	1.6	2	1.1			186	2.26	3.11
	%†	30.8		35.9		16.7		47.1		50.0		66.7				32.1		
C	#	123	80.4	24	15.7	3	2.0	3	2.0							153	3.05	1.94
	%	28.5		23.3		16.7		17.6								26.4		
D	#	84	67.2	25	20.0	9	7.2	4	3.2	2	1.6	1	0.8			125	3.11	3.35
	%	19.4		24.3		50.0		23.5		33.3		33.3				21.6		
E	#	53	82.8	7	10.9	3	4.7	1	1.6							64	2.74	2.25
	%	12.3		6.8		16.7		5.9								11.0		
F	#	39	75.0	10	19.2			1	1.9	1	1.9			1	1.9	52	2.80	3.50
	%	9.0		9.7				5.9		16.7				100.0		8.9		
TOTAL	#	432	74.5	103	17.8	18	3.1	17	2.9	6	1.0	3	0.5	1	0.2	580	2.75	2.79
	%	100.0		100.0		100.0		100.0		100.0		100.0		100.0				

Source: Regional District of Okanagan - Similkameen

* % of the number of subdivisions in each electoral area
 † % of the number of subdivisions in each size category



Plate 4. New home being constructed in a small subdivision at Kaleden.



Plate 5. New homes in Summerland.

Land Use Change

The extent of urban development in 1963 and 1970 was mapped from air photographs and coded according to density for computer analysis. Four density categories were established from 0, lowest density, to 3, highest density (see section on methodology for further explanation). In 1963, there were 2,893 acres of category 3 density of urban development, 1,474 acres of category 2, 2,878 acres of category 1, and the remaining land was of category 0 density (Table X). Category 3 areas occurred in fairly compact clusters at Osoyoos, Oliver, Penticton, Naramata, and Summerland. Category 2 land occurred in more scattered patches, generally closer to major centres, particularly Penticton and Summerland. Category 1 land was quite scattered throughout the valley, but also had a slight tendency to be located nearer urban centres. Oliver and Osoyoos were quite compactly developed, while Penticton and Summerland exhibited more scattered patterns of development. In 1963, very little development had occurred in the Kaleden area.

By 1970, there were 4,048 acres of category 3 development, 2,146 of category 2, and 4,218 acres of category 1 (Table X). Category 3 land occurred in fairly compact clusters in the main urban centres. Categories 1 and 2 land were quite scattered throughout the valley, however, category 2 had a tendency to be located closer to urban areas. Scattered medium density development (categories 1 and 2) was particularly evident in the vicinity of Osoyoos, Kaleden, Penticton and Summerland (Fig. 10, map pocket).

Table X also summarizes the change in classification of urban development that took place between 1963 and 1970. The table shows the amount of land that increased in density, decreased in density, and remained in the same category in both years. A total of 4,646

TABLE X

URBAN DEVELOPMENT IN 1963 AND 1970

UN63

CATEGORY	0.		1.		2.		3.		Total			
	CLASS	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	
0.	Ac.	391,034.5	99.9	129.5	0.1	4.9	0	4.9	0	391,173.9	100.0	
	%	99.2		4.5		0.3		0.2		97.4		
U N 7 0	1.	Ac.	2,226.1	52.8	1,967.1	46.6	24.9	0.6	0	4,218.1	100.0	
		%	0.5		68.3		1.7			1.1		
	2.	Ac.	697.2	32.5	562.7	26.2	886.4	41.3	0	2,146.4	100.0	
		%	0.2		19.6		60.1			0.5		
	3.	Ac.	383.5	9.5	219.1	5.4	557.8	13.8	2,888.4	71.3	4,048.7	100.0
	%	0.1		7.6		37.8		99.8		1.0		
	Tot. Ac.	394,341.2	98.2	2,878.4	0.7	1,474.1	0.4	2,893.4	0.8	401,587.1	100.0	
	%	100.0		100.0		100.0		100.0		100		

Note: increase of category 3 = 1,155.36 acres or 39.9%
 increase of category 2 = 672.3 acres or 45.6%
 increase of category 1 = 1,339.6 acres or 46.5%

Source: Computer analysis

acres increased in density while 164 acres decreased in density. The increase of 1,155 acres of category 3 land represents an increase of forty percent from 1963. Category 2 land increased by 45.6 percent (672 acres), while category 1 land increased by 46.5 percent (1,340 acres). Therefore, the trend of urban growth has been toward a low and medium density of development, from 0.865 to 2.5 acres per dwelling.

The major increases in category 3 development occurred in south Penticton, Summerland and Osoyoos (Fig. 11). Increases in category 2 occurred primarily in south Penticton, although increases also occurred in a scattered fashion at Summerland, Westbench, Kaleden, Oliver and Osoyoos. The increase in category 1 land was scattered throughout the valley. Most of the increase of urban development was located within a ten mile radius from Penticton, either in Penticton's rural-urban fringe or around Summerland and Kaleden (Plates 4 and 5). In recent years, both Summerland and Kaleden have become bedroom communities of Penticton; both are located about eight miles from Penticton and adjacent to highway 97, providing easy access to the city. Each community provides a rural style of living with the advantage that employment and urban amenities are close at hand.

LAND USE CONFLICTS

Several distinct land use conflicts may result from urban and orchard development in the southern Okanagan. First, if orchards are located on marginal rather than good agricultural land, orchardists may realize financial difficulties. Second, if urban development occurs in areas that were previously occupied by orchards the consequences may be a reduction of fruit production, a breeding ground for disease and infestations when the trees are retained and not looked after, and

a conflict of life styles between farmers and urban residents when new development is in close proximity to orchards. In the latter case, urban development can alienate a considerable amount of agricultural land in addition to that required for actual construction, particularly when development occurs in a scattered fashion. Finally, if urban development takes place on good agricultural land, the land is permanently taken out of production.

Land with a capability of producing tree fruit is limited to a fairly narrow band along the major lakes and the Okanagan River (Fig. 6), and amounts to a total of 41,245 acres. Of this total, 8,222 acres (19.9 percent) is class 1, 24,243 acres (58.8 percent) is class 2, 8,446 acres (20.5 percent) is class 3, and 334 acres (0.0 percent) is class 4 land. ⁴³ Two areas are predominant: the Penticton, Naramata, and Summerland area around the south end of Okanagan Lake; and the area from Oliver south to the Canada - United States border. Virtually all the land within all irrigation districts and municipal boundaries, except Summerland, is classified as good agricultural land, but good land is also found outside these boundaries. Good agricultural land in Summerland is restricted to the lower benches as land at higher elevations has climatic limitations.

ORCHARDS AND LAND CAPABILITY

In 1963, a total of 16,314 acres of land was classified as having orchards; 13,137 acres or 80.3 percent were located on good agricultural land (classes 1 - 4), while 3,207 acres or 19.4 percent were located on marginal land (Table XI). Orchards located on marginal land were found primarily in Summerland, Kaleden, and a small area to the south of Oliver. Orchards on marginal land in Summerland were located at higher

TABLE XI

LAND CAPABILITY VS. ORCHARD DEVELOPMENT IN 1973

		LCAP										Total Acres	
CLASS		0.		1.		2.		3.		4.			
		Acres	%	Acres	%	Acres	%	Acres	%	Acres	%		
O H 6	0	Ac.	357,135.7	92.7	4,028.8	1.1	16,528.6	4.3	7,250.9	1.9	328.7	0.09	385,272.7
		%	99.1		49.0		68.2		85.8		98.5		95.9
3	1	Ac.	3,207.1	19.7	4,193.2	25.7	7,714.0	47.3	1,195.2	7.3	5.0	0.03	16,314.5
		%	0.9		51.0		31.8		14.2		1.5		4.1
TOTAL			360,342.8	89.7	8,222.0	2.1	24,242.6	6.0	8,446.1	2.1	333.7	0.1	401,587.2

Note: area of orchards on good land = 13,107.4 acres or 80.3%
 area of orchards on marginal land = 3,207 acres or 19.7%

LCAP 0 = marginal land
 LCAP 1 - 4 = good land, 1 is best land
 OH63 0 = no orchards
 OH63 1 = orchards

Source: Computer analysis

elevations west of the townsite, where climate is the major limiting factor, and on the Trout Creek delta which experiences groundwater problems in years of high runoff. The Kaleden area is limited by a combination of climate, soils, and topography (Plate 6). The marginal area south of Oliver is located in a frost pocket where cold air collects after draining from the surrounding hills; however, the area has successful orchards by the use of smudge pots on cold nights.

A similar pattern also existed in 1970; there was a total of 15,000 acres of orchards, of which 12,390 acres or 82.6% were located on good agricultural land (Table XII). As the figure for 1963 was 80.3%, there was a tendency for orchards to be concentrating more on good agricultural land. Of the net loss of orchards between 1963 and 1970 (1,314.7 acres), 717 acres or 54.6 percent was lost from good agricultural land, of which, over one-half was lost from class 1 land. The loss of orchards between 1963 and 1970 may be the result of uneconomic orchard operation, urban development, or speculation.

ORCHARDS AND URBAN DEVELOPMENT

The amount of urban development which coincides with orchards provides an indication of the extent of "hobby farming" in the southern Okanagan. In 1970, a total of 2,570 acres of categories 1 and 2 urban development were also classified as having orchards. This represents 17.1 percent of all orchards and 40.4 percent of all categories 1 and 2 urban (Table XIII, and Fig. 12). In many cases, hobby farmers do not have the time, equipment, or knowledge necessary to maintain fruit trees. Some of these units, if not properly cared for, can become breeding grounds for insects and disease which then spread to commercial orchards. They produce small quantities of fruit, frequently of



Plate 6. Orchards in relation to land capability, Kaleden. Some of the orchards are found on class 1 or 2 land, but a number of orchards are also located on marginal land.

TABLE XII

LAND CAPABILITY VS. ORCHARD DEVELOPMENT IN 1970

		LCAP											
CLASS		0.		1.		2.		3.		4.		Total	
		Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	
O H 7 0	0	Ac.	357,733.3	92.5	4,437.9	1.2	16,583.4	4.3	7,504.9	1.9	323.7	0.08	386,587.4
		%	99.3		54.0		68.4		88.9		98.5		96.3
O H 7 0	1	Ac.	2,609.5	17.4	3,844.8	25.2	7,659.2	51.1	941.2	6.3	5.0	0.03	14,999.8
		%	0.7		46.0		31.6		11.1		1.5		3.7
TOTAL			360,342.8	89.7	8,222.0	2.1	24,242.6	6.0	8,446.1	2.1	333.7	0.1	401,587.2

Note: area of orchards on good land = 12,390 acres or 82.6%
 area of orchards on marginal land = 2,609.5 acres or 17.4%

LCAP 0 = marginal land
 LCAP 1-4 = good land, 1 is best land
 OH70 0 = no orchards
 Oh70 1 = orchards

Source: Computer analysis

Total net loss of orchards = 1,314.7 acres
 Loss of marginal land = 597.6 acres or 45.5%
 Loss on class 1 land = 408.36 acres or 31.1%
 Loss on class 2 land = 54.79 acres or 4.2%
 Loss on class 3 land = 253.98 acres or 19.3%
 Loss on class 4 land = 0
 Loss on classes 1-4 = 717.13 acres or 54.6%

TABLE XIII

URBAN DEVELOPMENT, 1970 VS. ORCHARD DEVELOPMENT, 1970

UN70

CATEGORY		0.		1.		2.		3.		Total	
CLASS		Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
0	Ac.	378,768.8	98.0	2,021.9	0.5	1,772.9	0.5	4,023.8	1.0	386,587.4	100
	%	96.8		47.9		82.6		99.4		96.3	
1	Ac.	12,405.2	82.7	2,196.2	14.6	373.5	2.5	24.9	0.2	14,999.8	100
	%	3.2		52.1		17.4		0.6		3.7	
TOTAL		391,173.9	97.4	4,218.1	1.1	2,146.4	0.5	4,048.7	1.0	401,587.2	100
		100		100		100		100		100	

Source: Computer analysis

poor quality. They are, however, still entitled to sell the fruit to packing houses, contributing to inefficiency and higher costs at the packing houses, as each grower's fruit has to be processed and graded separately.

Some of the urban development that existed in 1970 was located on land that was classified as orchards in 1963 (Plate 7). A total of 194.2 acres of category 3 urban in 1970 was located on land classed as orchards in 1963, but 24.9 acres of category 3 urban displaced previously existing orchards and represents 14.6 percent of the total increase of category 3 urban (Tables XIII and XIV). In addition, 851.6 acres of category 2 urban were located on 1963 orchards and 373.5 acres were also located on 1970 orchards, for a net displacement of 478.1 acres or 71.1 percent of the increase of category 2 urban. Finally, 2,724.1 acres of category 1 urban were located on 1963 orchards, of which 2,196.2 acres were also classed as orchards in 1970, for a net displacement of 527.1 acres. This represents 39.4 percent of the total increase of category 1 urban.

Urban development may locate on previous orchards for a number of reasons. First, it provides the opportunity to retain fruit trees for personal use. Second, the bench lands, where many orchards are located, offer excellent view sites. Third, orchardists may be in financial difficulties and stand to make substantial profits if their land is subdivided and sold for urban uses. Finally, urban development is dependent upon adequate water supply which is available in many orchard areas.

The availability of domestic water on orchard land is the result of the installation of dual water supply systems when irrigation systems were developed under the A.R.D.A. programs. The A.R.D.A.



Plate 7. New urban development and abandoned orchard outside Osoyoos.

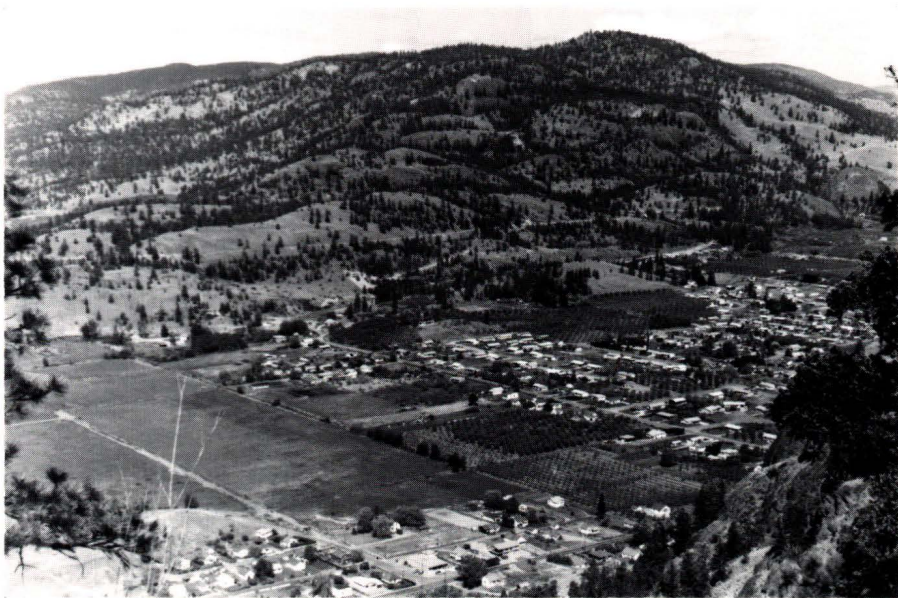


Plate 8. A mixture of urban development and orchards in Summerland.

TABLE XIV

URBAN DEVELOPMENT, 1970 VS. ORCHARD DEVELOPMENT, 1963

UN70

CATEGORY		0.		1.		2.		3.		Total		
CLASS		Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	
O H 6 3	0	Ac.	378,629.3	98.3	1,494.0	0.3	1,294.8	0.3	3,854.5	1.0	385,272.7	100
		%	96.8		35.4		60.3		95.2		95.9	
	1	Ac.	12,544.6	76.9	2,724.1	16.7	851.6	5.2	194.2	1.2	16,314.5	100
		%	3.2		64.6		39.7		4.8		4.1	
TOTAL			391,173.9	97.4	4,218.1	1.1	2,146.4	0.5	4,048.7	1.0	401,587.2	100
			100		100		100		100		100	

Source: Computer Analysis

contracts included a roll back clause if agricultural land was converted to urban uses. This, however, has not prevented conversion as it has been several years since the systems were constructed, and the amount to be paid back is quite small. Moreover, the rapid rise in land values more than compensates for any penalty. Orchards have been lost to urban encroachment because numerous factors facilitate the process, and in the past no mechanism has been available to adequately prevent the loss.

Urban development is also scattered throughout existing orchard areas (Fig. 12 and Plate 8). When urban development is intermixed with orchards conflicts may arise resulting from the different life styles of orchardists and urban residents. Orchardists may complain about the loss of fruit, damage to trees and machinery. On the other hand urban residents may complain about the noise and sprays from orchard operations and demand restrictive by-laws. These regulations inhibit the efficient operation of an orchard.

URBAN DEVELOPMENT AND LAND CAPABILITY

When urban development occurs on good agricultural land, the land is permanently lost for agricultural production. The extent of this conflict is shown in Tables XV through XVII, and is illustrated in Fig. 13. In 1963, 73.7 percent or 2,131.5 acres of category 3 urban density were located on good agricultural land. In addition, 72.3 percent or 1,065.9 acres of category 2 and 70.8 percent or 2,036.8 acres of category 1 density were located on good agricultural land. Therefore, in 1963, the majority of urban development was located on good land and the tendency was for the greater proportion of the denser classes to be located on such land.

TABLE XV

URBAN DEVELOPMENT IN 1963 VS. LAND CAPABILITY

UN 63

CLASS	0.		1.		2.		3.		Total	
	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
0	Ac. 358,330.9 % 90.9	99.4	841.6 29.2	0.2	408.4 27.7	0.1	761.9 26.3	0.2	360,342.8 89.7	100
1	Ac. 7,285.7 % 1.9	88.6	503.0 17.5	6.1	184.5 12.5	2.2	249.0 8.6	3.0	8,222.0 2.1	100
2	Ac. 21,508.6 % 5.5	88.7	1,215.1 42.2	5.0	542.8 36.8	2.2	976.1 33.7	4.0	24,242.6 6.0	100
3	Ac. 6,892.3 % 1.8	81.6	318.7 11.1	3.8	338.6 23.0	4.0	896.4 31.0	10.6	8,446.1 2.1	100
4	Ac. 323.7 % 0.1	97.0					9.96 0.3	3.0	333.7 0.1	100
TOTAL	394,341.3 100	98.2	2,878.4 100	0.7	1,474.1 100	0.4	2,893.4 100	0.7	401,587.2 100	100

Note: Good agricultural land includes classes 1 - 4

Category 1 urban on good agricultural land = 2,036.8 acres or 70.8% of category 1

Category 2 urban on good agricultural land = 1,065.9 acres or 72.3% of category 2

Category 3 urban on good agricultural land = 2,131.5 acres or 73.7% of category 3

Source: Computer analysis

TABLE XVI

URBAN DEVELOPMENT IN 1970 VS. LAND CAPABILITY

UN70

CLASS	CATEGORY 0.		1.		2.		3.		Total			
	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%		
L C A P	0	Ac.	357,342.9	99.2	1,230.0	0.3	747.0	0.2	1,040.8	0.3	360,342.8	100
		%	91.4		29.2		33.7		25.7		89.7	
	1	Ac.	6,623.4	80.6	961.1	11.7	273.9	3.3	363.5	4.4	8,222	100
		%	1.7		22.8		12.4		9.0		2.1	
	2	Ac.	20,492.7	84.5	1,638.4	6.8	776.9	3.2	1,334.6	5.5	24,242.6	100
	%	5.2		38.8		35.1		33.0		6.0		
	3	Ac.	6,409.3	75.9	388.4	4.6	348.6	4.1	1,299.8	15.4	8,446.1	100
		%	1.6		9.2		15.7		32.1		2.1	
	4	Ac.	323.7	97.0					9.96	3.0	333.7	100
		%	0.1						0.2		0.1	
	TOTAL		391,173.9	97.4	4,218.1	1.1	2,146.4	0.5	4,048.7	1.0	401,587.1	100
			100		100		100		100		100	

Note: Good agricultural land includes 1-4

Category 1 urban on good agricultural land = 2,987.9 acres or 70.8% of category 1

Category 2 urban on good agricultural land = 1,399.4 acres or 63.1% of category 2

Category 3 urban on good agricultural land = 3,007.9 acres or 74.3% of category 3

Source: Computer analysis

TABLE XVII

INCREASE OF URBAN DEVELOPMENT VS. LAND CAPABILITY

		ACREAGE						
		1963	1970	Diff.	Good land	%*	Poor land	%
URBAN CATEGORIES	0	394,341.3	391,173.9	-3,167.4	-2,161.2	68.2	-1,006.2	31.8
	1	2,878.4	4,218.1	+1,339.7	951.1	71.0	388.6	29.0
	2	1,474.1	2,146.4	+ 672.3	333.5	49.6	338.8	50.4
	3	2,893.4	4,048.7	+1,155.3	876.4	75.9	278.9	24.1

* % of increase or loss

Source: Computer Analysis

However, by 1970, there were 2,987.9 acres or 70.8 percent of category 1, 1,399.4 acres or 63.1 percent of category 2, and 3,007.9 acres or 74.3 percent of category 3 urban located on good agricultural land (Plate 9). Most of the urban development which occurred between 1963 and 1970 was located on good land. Category 3 urban increased by 1,155.3 acres, of which 876.4 acres or 75.9 percent was on good land. Category 2 urban was divided between good and marginal land as 333.5 acres or 49.6 percent of the total increase of 672.3 acres was located on good land. Category 1 urban increased by 1,339.7 acres and 951.1 acres or 71.0 percent was on good land.

The majority of urban development in the southern Okanagan Valley is located on good agricultural land and the trend is for a greater proportion of new development to locate on good agricultural land. However, urban growth also occurs in a scattered low density form of development which alienates an additional amount of orchard land. Even the lower density forms of urban development reduce the amount of land in tree fruit production, as many are used for country residences and hobby farms (Plate 10). Many of these acreages are located on good agricultural land.

Urban development has encroached on orchard land in the southern Okanagan because orchard land has the physical and locational characteristics attractive for development, the land is generally served by a water supply designed for domestic purposes, and orchardists can obtain high land prices if they sell for urban uses. These factors, along with many others, contribute to the land use decisions of predevelopment landowners, speculators/developers, and urban consumers. Urban encroachment on orchard land is the end result of numerous individual decisions that are made in the land conversion process.



Plate 9. Urban development located on class 2 land on the east side of Osoyoos Lake.



Plate 10. A small acreage on class 1 land in Penticton.

FOOTNOTES

1. Kruger, Ralph R. "The Physical Basis of the Orchard Industry of B.C.", Geographical Bulletin, No. 20, 1963, p. 16.
2. British Columbia, Department of Industrial Development, Trade and Commerce, Economics and Statistics Branch, The Okanagan-Shuswap Region, a British Columbia Economic Study prepared for the Okanagan Study Committee, Canada-British Columbia Okanagan Basin Agreement, Victoria, April 1971, p. 13.
3. Ibid, p. 107.
4. Ibid, p. 23.
5. Cross, W.K., C.F. Goulson and A.E. Loft, (eds.), The British Columbia Source Book, Victoria: Queen's Printer, 1966, p. 99.
6. Kruger, Ralph R., "The Physical Basis of the Orchard Industry of B.C.", p. 24.
7. Cross, W.K., et. al., The British Columbia Source Book, p. 100-101.
8. Kruger, Ralph R., "The Physical Basis of the Orchard Industry of B.C.", p. 16.
9. Cross, W.K., et. al., The British Columbia Source Book, p. 107.
10. Kruger, Ralph R., "The Physical Basis of the Orchard Industry of B.C.", p. 26.
11. Canada, Department of Regional Expansion, The Canada Land Inventory: Objective Scope and Organization, Report No. 1, 2nd edition, Ottawa: Queen's Printer, 1970, p. 1.
12. Ibid, p. 19.
13. Ibid, p. 7.
14. Ibid, p. 7.
15. Limitations to capability include adverse climate, undesirable soil structure and/or low permeability, erosion damage, fertility, inundation, moisture, salinity, stoniness, shallowness to solid bedrock, soil limitations, adverse topography, excess water, and minor cumulative limitations.
16. British Columbia, Department of Agriculture, Soil Survey Division, Land Capability for Agriculture, by G.G. Runka, January, 1973, p. 3.
17. British Columbia, Department of Agriculture, British Columbia Land Inventory, Climate Capability Classification for Agriculture, Climatology Report No. 1, 2nd edition, Victoria, B.C., November, 1972. The type of limitations include:

- A. Drought or aridity during the growing season.
 E. Extreme minimum temperatures during the winter.
 F. Minimum temperatures above or below freezing during the growing season, which may affect plant growth.
 G. Insufficient heat units.
 H. Low temperatures during the growing season.
 U. Wind exposure.
 X. Combination of low temperatures, low heat units, high snowfall and excess wind.
 Y. Excess precipitation during the growing season.
18. Ibid.
19. British Columbia, Department of Industrial Development, Trade and Commerce, The Okanagan-Shuswap Region, p. 19.
20. Dalichow, Fritz, Agricultural Geography of B.C., Vancouver: Versatile Publishing Co. Ltd., 1972, p. 89.
21. Cross, W.K., et. al., The British Columbia Source Book, p. 97.
22. MacPhee, Dean E.D., Royal Commission of the Tree-Fruit Industry of British Columbia, Victoria: Queen's Printer, 1958, p. 22 and 24.
23. Medland, S.L., "Economic Aspects of the Southern Okanagan Lands Project", Transactions of the Seventh B.C. Natural Resources Conference, February 24-26, 1954, Victoria: Queen's Printer, 1954, p. 30.
24. The project is presently operated by the South Okanagan Lands Irrigation District (S.O.L.I.D.).
25. Canada-British Columbia Okanagan Basin Agreement, "Land Use and Water Demand", Preliminary Study Data, Bulletin No. 4, 1972, p. 3.
26. Water is supplied by the municipalities of Penticton, Summerland, Oliver, and Osoyoos, and the following irrigation districts: Black Sage, Boundary Line, Kaleden, Meadow Valley, Naramata, Okanagan Falls, Osoyoos, Shuttleworth Creek, Southern Okanagan Lands, Trout Creek, and Westbench.
27. Dalichow, Fritz, Agricultural Geography of B.C., p. 41.
28. Kruger, Ralph R., "The Geography of the Orchard Industry of Canada", Geographical Bulletin, Vol. 7, No. 1, 1964, p. 57.
29. Kruger, Ralph R., "The Physical Basis of the Orchard Industry of B.C.", p. 31.
30. B.C. Tree Fruits Ltd., "The B.C. Tree Fruit Industry: Facts and Figures", unpublished document, 1972, p. 1.
31. B.C. Tree Fruits Ltd., Annual Report 1971-1972, p. 22.

32. B.C. Fruit Board, brief presented to the Select Standing Committee on Agriculture, Victoria, B.C., April 4, 1973, p. 1.
33. Oliver Chronicle, "Growers are 'Mad, Mad, Mad' Over Fruit Returns", August 20, 1970, p. 1.
34. The acreage required for a viable economic unit is difficult to define as success depends upon several other factors in addition to size. Orchardists interviewed by the author suggested that the minimum size of a viable unit would be between fifteen and twenty acres. For a discussion of economic viability, see MacPhee, Dean E.D., Royal Commission on the Tree-Fruit Industry of B.C., p. 79.
35. British Columbia, Department of Industrial Development, Trade and Commerce, The Okanagan-Shuswap Region, p. 58.
36. Ibid, p. 107.
37. Canada-British Columbia Okanagan Basin Agreement, "Economic Growth in the Okanagan Basin to 1980", Bulletin No. 9, 1972, p. 1.
38. British Columbia, Department of Industrial Development, Trade and Commerce, The Okanagan-Shuswap Region, p. 112.
39. Ibid, p. 13.
40. Canada-British Columbia Okanagan Basin Agreement, Recreation and Aesthetic Resources, Bulletin No. 5, 1972, p. 1.
41. Regional District of Okanagan-Similkameen, Population: Survey and Analysis Towards the Regional Plan, November, 1972, p. 5.
42. British Columbia, Department of Municipal Affairs, Subdivision Approval Procedure, Victoria: Queen's Printer, 1972, p. 15.
43. Acreage figures were obtained from the computer analysis.

CHAPTER III

LAND CONVERSION DECISIONS

On the urban fringe it takes a good farmer or a rich one to hold on to his land and his equilibrium when he is assaulted with rising taxes one day and cajoled on the following by speculators with fat wallets.

Edward Higbee, 1960, p. 159.

The rural to urban land conversion process involves a large number of independent but interrelated decisions made by predevelopment landowners (orchardists), speculators/developers, and urban consumers. Each decision in the chain depends upon the personal characteristics of the decision-maker, the choice process, and the criteria used to evaluate the consequences of a decision. In addition, a variety of factors may enter into the decision-making process of each type of actor. The purpose of this chapter is to examine the nature of those factors which may have influenced private decisions to convert orchard land to urban uses in the southern Okanagan prior to the land freeze of December 21, 1972.

METHODOLOGY

As the purpose of the interviews was to assess the types of factors which influence land conversion decisions and not to provide an in-depth study of each group, an open ended personal interview technique was used. A variety of different roles could be played by any one individual; therefore, interviews were conducted with a wide variety of individuals familiar with the land conversion process, including orchardists, realtors,

government officials, and elected public officials.

The interview approach was divided into two stages. First, preliminary informal discussions were held with orchardists, realtors, government officials and elected public officials in order to determine the type and nature of questions which could be asked at a later date. An attempt was made at this stage to obtain the names of individuals for future interviews. Second, based upon the results of the preliminary discussions, a semi-formal interview format was established, and interviews arranged and conducted in the spring of 1973. Two interview formats were designed, one for use with orchardists and one for use with realtors. The realtor format was also used as the basis for interviews with government officials and elected public officials; however, these interviews varied according to the individual, the agency represented and the information available. In all cases, the interviews were taped and transcribed at a later date.

Interviews conducted with representatives of the orchard industry were designed to assess the type and nature of the factors involved in a predevelopment landowner's decision to hold or sell his land and the options open to him in each situation. Emphasis was placed on the situation as it existed before the land freeze of December 21, 1972. In addition, an attempt was made to assess the orchardists' reaction to the proposed Land Commission Act (Appendix B). In arranging interviews with orchardists, an effort was made to interview people involved, either past or present, with the B.C.F.G.A., who through this capacity had the experience of representing the opinions of many orchardists. A total of thirteen interviews were conducted with orchardists from various parts of the valley. In addition, interviews were held with

four district horticulturalists and several other people involved with the orchard industry (Appendix A).

Real estate agents in the southern Okanagan provided information on both the supply and demand aspects of the land conversion process, and therefore, information on the factors involved in all actors' decisions. At the time of the survey, a total of twenty-six real estate offices were located in the southern Okanagan: five in Summerland; fifteen in Penticton; one in Okanagan Falls; two in Oliver; and three in Osoyoos (Table XVIII). Interviews were held with a 30.7 percent sample of the offices, and a stratified random sample was used to ensure coverage of the entire valley. This resulted in a total of eight interviews: two from Summerland, four from Penticton, one from Oliver, and one from Osoyoos (Appendix A).

TABLE XVIII

SAMPLE STRUCTURE OF REAL ESTATE OFFICES

AREA	OFFICES		SAMPLE TAKEN	
	#	%	#	%*
Summerland	5	19.2	2	25
Penticton	15	57.9	4	50
Okanagan Falls	1	3.8	0	0
Oliver	2	7.6	1	12.5
Osoyoos	3	11.5	1	12.5
TOTAL	26	100	8	30.7+

* % of total sample

+ % of total offices

The interviews were based upon an open-ended semi-formal format, which allowed the interviewer freedom to pursue any lines of interest while providing a framework within which the discussion took place. The

format was designed to cover a variety of topics including: factors involved in an orchardist's decision to sell his land, factors involved in a developer's decision to purchase and develop land, factors involved in an urban consumer's decision to purchase a home or land, the options open to each decision-maker, land speculation, problems encountered in developing new areas for residential development, and the impact of the Land Commission Act (Appendix C).

A number of other interviews were held with a variety of government officials, elected public representatives, and other private individuals in order to obtain a variety of information on both the public and private aspects of the land conversion process (Appendix A). Discussions held with the Regional District of Okanagan-Similkameen were particularly useful.

As supported by the data presented in Appendix A, it is interesting to note that several individuals played a variety of roles, such as orchardist, representative of the B.C.F.G.A., director of the B.C. Fruit Board, director of the regional district, or as a real estate agent.

Urban consumers were not approached directly because of time considerations. Although the urban consumer is the ultimate user of the land, the literature suggested that his decision is considered to have the least amount of influence in the land conversion process. Consequently, information on the factors involved in an urban consumer's decision was derived from the interviews with realtors and through a content analysis of real estate advertisements. The assumption was made that the wording of the real estate advertisement is designed to reflect the demands of the consumer.

Real estate advertisements are placed in all local newspapers (from Summerland, Penticton and Oliver) as well as the Western Advertiser,

a special advertising paper published weekly for the southern Okanagan, which contains a special section devoted to real estate. Most real estate advertisements are run through this latter publication and increase in number during the summer months in order to reach the large tourist population. Eighteen issues of the Western Advertiser were obtained for the period May to August of 1972. A random sample of twenty-eight percent (five issues) was selected for analysis.

The advertisements for land or residences (excluding commercial and industrial property) were classified according to the type of property, the description of the property, and reference to future potential. These categories were further divided to reflect the factors which could enter into an urban consumer's decision, such as view, trees, investment, services, etc. Each advertisement was coded according to the presence of these items within the advertisement.

Thus, information on the factors involved in actors' land conversion decisions was obtained from a variety of sources. However, these factors will be discussed from the point of view of the predevelopment landowner, the speculator/developer, and the urban consumer.

PREDEVELOPMENT LANDOWNER DECISIONS

The conversion of orchard land to urban uses is first of all a result of an orchardist's decision to sell or subdivide his land. His decision may be influenced by a variety of factors and is dependent upon the choices or options available.

FACTORS INFLUENCING DECISIONS

An orchardist's decision to continue farming or to sell his land for urban uses is contingent upon a complex set of physical, social, and economic factors. The decision to sell depends upon the income and

satisfaction received from farming as compared with the profit and opportunity which may accrue by selling.

Physical Factors

At the time of the interviews, land capability was not considered to be a very important factor in a decision to sell. Orchards that were originally planted on marginal land have been mostly eliminated over time and those remaining were not considered to be operated on a commercial basis. These mistakes are seldom made at present because of information available from district horticulturalists and the Canada Department of Agriculture Research Station at Summerland. However, capability may have been a contributing factor for specific areas in Kaleden and Summerland, where marginal areas have been converted to urban uses.

In a decision to sell land, orchardists felt that climatic conditions were more important than soil conditions. Areas with poorer climate are generally planted to the harder varieties of apples and pears. However, damaging frosts affecting the entire valley have occurred approximately once in seven years, at which time considerable economic loss has resulted. On some occasions, trees have been damaged to the extent that they had to be replaced. Rehabilitation of an orchard has required substantial capital for new trees, a waiting period of six to eight years for trees to reach full production, and an additional time to be able to pay off the investment. Faced with these prospects, in many instances an orchardist has decided to sell. Methods such as smudge pots have been used to minimize the risk of frost, but this has increased the operating costs of an orchard.

Social Factors

In many cases, social factors have been a major part of an orchardist's decision to sell. Social factors include age, health, experience, vandalism, and residential complaints. All respondents stressed that the age of a farmer was a major reason for selling an orchard, depicting orcharding as hard work with long hours which older farmers find difficult. A study by Dorling in 1966 showed that the average age of apple producers was 50.5 years; twenty-nine percent of producers were over sixty years of age, forty-eight percent were between forty-one and sixty years old, and twenty-three percent were under forty years of age. In most cases, the orchardist was middle aged by the time he purchased an orchard because of the time needed to accumulate the necessary capital, even with government loan programs. Orchardling was considered to be a long term operation, especially if an orchard had to be rehabilitated because of old trees or frost damage. Older farmers have not been prepared to spend the time or capital for such a program unless their children were prepared to take up orcharding. Personal or health problems, especially at an older age, would often force an orchardist to sell. Under these circumstances, the sale of an orchard appeared to be the only feasible alternative and an orchardist would sell to the highest bidder whether farmer or developer.

The experience of an orchardist was indicated as an important factor in certain instances, as it usually took a great deal of knowledge to operate a commercial orchard. It was also noted that, from an outside point of view, orcharding appeared to be an idyllic life style and therefore many orchards were purchased by retired prairie farmers or urban people striving to get back to the land. Disillusionment resulted when they realized that orcharding was hard work, involved long hours,

and was a year round operation. Many people entered orcharding only to realize that they were not suited to the business or that they lacked the necessary expertise. It was not long before they were prepared to sell.

Orchardists reported that the major hindrance to operating a commercial orchard resulted from the conflict in life style between orchardists and urban residents when urban growth encroached upon an agricultural area. In order to facilitate the efficient operation of equipment by allowing easy access to the area, orchards have not been fenced and thus some orchardists have experienced loss of fruit through minor thefts. Orchards located in close proximity to residential development have been vandalized by the destruction of young trees, littering, and damage to equipment. Orchardng requires the continual application of sprays throughout the spring and summer months to control disease and infestation. The machinery is noisy and the spray must be applied in the early morning when the winds are calm. In addition, cherry growers use carbide guns to scare away birds. Consequently, when residential development has been located close to orchards, residents have complained about the noise and spray drift. Penticton has adopted an anti-noise by-law which curtails spraying at certain times of the day. These formal and informal social pressures inhibit the operation of an orchard and have occasionally contributed to an orchardist's decision to sell.

Social factors have played an important part in a decision to sell. Individually, they may not have been significant enough to make a farmer want to sell; however, orchardists indicated that the cumulative effect has provided an adequate reason, especially if an orchardist has also experienced economic problems.

Economic Factors

Economic factors were another major topic of discussion during the interviews. Orchardists indicated that economic factors were a major force in a decision to continue farming or to sell. As orchardists have had to provide for their own retirement, the land has been viewed as a pension fund, to be sold to the highest bidder. If an orchardist happened to be located close to an urban centre, there was a greater chance that he could sell to urban interests, which brought the best price. It was stressed that once the decision was made to sell, an orchardist would want to make as much profit as possible, and that he was not concerned with the intended use.

One aspect of the economic problems has been the cost incurred in producing fruit. Every farm requires a range of equipment, such as tractors, sprayers and giraffes; the costs of purchasing and operating equipment has risen continually over the years, placing an increasing economic burden on the farmer, especially when fruit prices have not risen to the same extent. In chapter II it was shown that the average size of an orchard was 9.9 acres, a size of orchard too small for the efficient operation of some equipment, with the result that most farms were overequipped. The cost of equipment in relation to the size of operation has placed a considerable economic burden on the orchardist. In addition, a variety of other factors have contributed to the cost of producing fruit, including fertilizer, sprays, irrigation water, power and taxes. All of these costs have risen steadily in the past decade, thus contributing to the cost of running an orchard, and in some cases, to an orchardist's decision to sell.

Labour cost and availability has been one of the most significant

burdens of operating an orchard, especially larger orchards. Labour costs have risen considerably in recent years with the increase in minimum wage requirements. Small orchards can be operated by a single family, except for a short period during the picking season. Larger orchards require help for pruning, thinning, and picking. The picking period is especially critical, as the fruit has to be harvested in a very short time. Some of the larger orchards hired help on a full time basis and many orchardists reported that their hired help made a better living than they could. Labour, however, has become scarce, due to the higher wages being paid in other fields. Many orchardists blamed government policy. Federal Industrial Incentives created more employment opportunities in the local area, thus reducing the availability of labour for farm work. In the past, a heavy reliance was placed on student help at picking time, but with programs such as the Opportunities for Youth and L.I.P. projects this source virtually dried up. Orchardists have had to pay wages higher than they could afford in order to get whatever labour was available. Many orchardists felt that more money could be made through unemployment insurance than from working on an orchard.

The other side of an orchard operation has been the return received for the fruit produced. Low and variable returns on production were cited as the most important reasons why an orchardist decided to sell. "The Okanagan fruit grower is beset by many problems these days, but they could probably be summed up by two words: low prices." ² One orchardist stressed that "the main problem associated with orcharding is the constant undulations in the price of fruit." ³ Low returns on the sale of fruit have made it difficult for an orchardist to adequately pay

the costs of producing fruit. This has resulted in short cuts, which inevitably result in lower quality or quantity of fruit produced and created a downward spiral effect. In addition, capital has not always been available for orchard rehabilitation. In fact, some orchardists reported that in some years insufficient income was received to pay the interest on outstanding loans. A number of orchardists voiced dissatisfaction with the marketing system and felt that higher returns could be attained from a reorganization of the system.

Thus, orchardists have faced a cost-price squeeze; on the one hand, the costs of producing fruit have steadily risen, and on the other hand, returns have been low and have fluctuated from year to year. In addition, many orchardists have experienced economic problems and social pressures which have inhibited the efficient operation of an orchard. A variety of physical, social, and economic factors has combined to influence an orchardist to decide to sell. However, orchardists felt that no single item could be isolated as the main reason for selling; rather, it has been the cumulative effect of numerous factors and that the combination has varied from individual to individual. Whatever the reasons, the final decision has depended upon the choices and alternatives that have been open to an orchardist at any point in time.

CHOICE PROCESS

An orchardist who encountered economic or social problems had to make a decision to either continue farming or to sell out. If the decision was made to continue farming, an orchardist could continue as in the past, rehabilitate the orchard, or expand the operation to a more economically viable unit. If the decision was made to sell, the purchaser could be either a farmer or a developer. On the other hand,

prior to the Land Commission Act, an orchardist could subdivide and sell the land on his own.

An orchardist who was prepared to continue as in the past could still face similar problems in the future. This type of decision could be a result of optimistic expectations of the future or the reluctance to move away from a particular location. However, an orchardist could chose to rehabilitate the orchard by planting different fruit varieties or by increasing the density of fruit trees. Planting new varieties could increase future returns, but it has not always been successful as future market conditions have been impossible to predict. A change to high density planting could increase productivity per acre and reduce labour requirements. However, these options have been very expensive and capital intensive in the initial stages and may have been beyond the financial capability of the orchardist. Thus, these options have been rather limited, especially if the orchardist has experienced financial problems.

The expansion of an orchard has also been limited by financial reasons. If another orchard was purchased, the purchase could include buildings and equipment in addition to the land. A problem has also been experienced in obtaining land in contiguous units. Larger orchards are made up of several parcels of land, sometimes a mile or so apart, making an efficient orchard operation very difficult.

If a decision was made to sell an orchard, the orchardist could consider subdividing and selling the lots on his own volition. However, subdividing and developing land has required a considerable amount of capital. In addition, subdivision requires approvals and permits from public authorities and the procedures can be quite complicated and time consuming. An orchardist unfamiliar with the process may have been

reluctant to exercise this option because of the complicated procedures.

The easiest alternative has been to list the orchard on the market and sell it to the highest bidder. In some cases, it has been difficult to sell the land as a farm, as purchasers were limited because of the large amount of capital necessary to enter farming and because of the economically unsound prospects of the industry. If the land was located close to an urban centre, there was a greater chance that the land would be purchased by a developer and could bring a higher price than it would as farm land. In fact, several orchardists reported that in many cases the developers would take the initiative and approach the orchardist with an offer to purchase.

Orcharding has been hard work and a long term business characterized by a great deal of uncertainty resulting from climatic hazards and unstable market conditions. However, orcharding has been a way of life that has been very satisfying to many individuals because it has provided rural living and a great deal of independence. Orchardists felt that this has more than compensated for the lower standard of living if expressed in economic terms alone.

The choice process of an orchardist has been limited by a number of factors. The alternatives open at any point in time have been limited by the conditions of knowledge of future outcomes, economics, and the decisions of other individuals in the land conversion. When an orchardist has been faced with economic and social problems, and uncertain future conditions in the fruit industry, the choice of selling out has looked very attractive, especially if a reasonable price could be obtained for the orchard. The option of selling for urban uses has also depended upon the choice process of a developer who could be considering the purchase of the land for development.

SPECULATOR/DEVELOPER DECISIONS

The major responsibility for converting land from rural to urban uses rests with the private sector, namely speculators and developers, who act as intermediaries between the supply of land from predevelopment landowners and the demand for living space by urban consumers. They act as initiators in the process by purchasing land in suitable locations, obtaining the necessary approvals for rezoning and subdivision, and marketing of the residential parcels. However, their choice of suitable locations and the type of development has been influenced by a variety of factors and constraints.

Interviews with realtors and government officials indicated that prior to the land freeze of December 21, 1972 land speculation played a minor role in land development. Speculative holding of land was not necessary, as an adequate supply of land was usually available for development when required. If speculation occurred, it was on the part of the orchardist, who would anticipate selling for urban uses upon reaching retirement. In addition, residential lots were often purchased for speculative reasons.

Realtors indicated that they seldom encountered difficulties in purchasing land for development and could be quite selective in the choice of location. In fact, there were usually a number of orchards for sale at any one time. However, they suggested that the common practice was to approach an orchardist with land in a suitable development location with an offer to purchase. It was also to their advantage if the orchardist was experiencing financial problems.

The most suitable land for development was in orchard areas. Orchardists were willing to sell for a price above farm value. The land was usually quite flat, which reduces development costs, and the

transportation and utility infrastructure was readily available. On the other hand, it was difficult to obtain water for land outside irrigation district boundaries; for example, an orchardist in the Naramata area was experiencing difficulties in developing a one-hundred acre subdivision because the land was outside the irrigation district. Developers were unable to generate the capital necessary to install private water systems. Even public policies, such as zoning by-laws and subdivision regulations, did not provide a hindrance to development. Most orchard land was zoned A-R, which allowed rural residential development with a minimum size lot of 9,000 square feet. In fact, the realtors indicated that people looking for a building site in rural areas were demanding even larger lot sizes.

Rural residential developments in the southern Okanagan were generally comprised of small subdivisions scattered throughout the valley (Table IX, Chapter II). Small subdivisions were partly a result of the Okanagan land tenure system (small parcels) which made it difficult to assemble several parcels of land into one unit necessary for a larger subdivision. In addition, Okanagan developers were quite small and depended upon a fairly quick turnover of land and capital and could not afford to tie up capital in large scale development. The small subdivisions occurred at various locations in order to maximize the chances of selling the property. In this way, developers could provide a number of alternative sites for the urban consumer. Realtors also indicated that small subdivisions or staged development was necessary to control the supply and price of land.

Thus, the factors involved in a developer's decision to purchase and develop land for residential purposes all contributed to the fact that orchard land was the most attractive and easiest to develop. In

the past, developers have not experienced any difficulty in obtaining land in suitable areas. However, in order to develop land for residential purposes a developer had to comply with local standards and regulations and follow the required procedures for approval. These procedures were not considered to be a major limitation on the development of land.

Developers' decisions regarding the location and type of new development are based upon an assessment of the demands for various types of living space being made by the urban consumer. Land development in the Okanagan has been fairly competitive, as a result of the relatively large number of small real estate and development companies; therefore, success has depended upon adequately meeting the consumer's preferences.

URBAN CONSUMER DECISIONS

The demand for residential land is a result of urban consumers searching for a new residence. The selection of a residence can be made from the resale of existing housing stock, the sale of new homes, or the sale of building sites. The location, size, and type of residence varies with a family's position in the life cycle, individual requirements and personal preferences.⁴ Thus, demands will vary and the final decision will be influenced by a variety of factors. The purpose of this section is to examine the types of factors involved in an urban consumer's selection of a new residential location. Information was obtained from interviews with real estate agents and from a content analysis of real estate advertisements.

FACTORS INFLUENCING DECISIONS

Consumer demands for residential living space involve a combination

of basic and amenity requirements. The former involves consideration of the interior components of a residence, such as the number of bedrooms, and house cost, which can vary with family size and socio-economic position. Amenity requirements are the additional features associated with the house or the site and its location. These factors involve such things as fireplaces, lot size, view, trees, privacy, or the opportunity to keep animals.

Basic and amenity requirements may be found in either rural or urban environments. The demand for residences or building sites in the southern Okanagan was approximately even between urban and rural areas.⁶ Urban demands stressed the basic requirements and proximity to such services as shopping and schools. Accessibility to shopping was particularly important to older people without personal transportation. Rural demands stressed the amenity requirements and the alternatives to urban living. Many people wanted to escape the city in search of privacy, space, and tranquility, but still have access to all urban amenities.⁷ The price of a residential lot in urban and rural areas was approximately the same, but in the rural area a larger lot could be purchased for the same price; however, the number of services would be lower. Realtors indicated that a number of lots were purchased for retirement and would not be developed for several years.

The content analysis of real estate advertisements indicated the availability of rural and urban properties and the wording of the advertisements indicated the type of factors which may have been important to a purchaser. The issues of the Western Advertiser examined contained a total of 233 advertisements (excluding commercial and industrial properties), of which ninety-three were for urban residences, sixty-four for rural residences, eleven for urban land, thirty-two for rural land

and thirty-three for orchards (Table XIX). Advertisements for rural properties totaled ninety-six or 41.2 percent; however, if orchards are included, the total is 129 or 55.4 percent of all advertisements. Urban and rural properties with homes constructed accounted for 67.4 percent of all advertisements, while raw land advertisements accounted for 18.4 percent.

Basic house requirements were an important factor in the purchase of a home, as 170 or 73.0 percent of all advertisements described the house. All of the advertisements for urban residences described the house and sixty of sixty-four advertisements for rural residences involved the same description. The parcel of land was described in thirty-nine of the advertisements. Realtors indicated that the majority of their customers preferred a large lot or a small acreage, but would settle for a smaller lot if proximity to urban facilities was also an important criterion. Larger sized lots were available mainly in rural areas or within the District Municipality of Summerland. Subdivision and health regulations required a minimum lot size of 9,000 square feet if the property was not serviced by a sewer system; however, the demand in rural areas varied from one-third of an acre to five acres.⁸

View property was in large demand in all areas, but there was a greater opportunity to meet this demand in the rural areas, particularly on the bench land around Okanagan and Skaha Lakes. View was listed in the advertisements for twelve of the ninety-three urban residences and twenty-eight of the sixty-four rural residences (Table XIX). View was also listed in thirty of the forty-three advertisements for rural and urban lots.

The Okanagan Valley is also a major attraction for many tourists in the summer because it affords them the opportunity to pick their

TABLE XIX
 CONTENT ANALYSIS OF REAL ESTATE ADVERTISEMENTS

FACTORS MENTIONED	CATEGORY OF ADVERTISEMENTS					TOTAL	
	URBAN RES.	RURAL RES.	URBAN LAND	RURAL LAND	ORCHARD	#	%
PROPERTY DESCRIPTION	House	93	60	-	-	17	170 73.0
	Lot	21	10	7	8	-	39 16.7
	View	12	28	8	22	4	74 31.8
	Lake Front	-	9	-	4	3	16 6.9
	Fruit Trees	5	11	3	6	16	41 17.6
	Water	-	2	1	10	1	14 6.0
	Services	1	2	4	8	1	16 6.9
	Privacy	5	7	-	1	5	18 7.7
	Animals	-	4	-	3	-	7 3.0
	Farm	-	-	-	2	15	17 7.3
POTENTIAL	Country Home	-	3	-	5	-	8 3.4
	Future Subdivision	-	1	-	9	4	14 6.0
	Investment	2	2	2	5	-	11 4.7
	Retirement	10	2	6	2	-	20 8.6
TOTAL #	93	64	11	32	33	233 100	
%	39.9	27.5	4.7	13.7	14.2	100	

Note: Commercial and industrial properties were excluded

Source: The Western Advertiser, June 13, June 27, July 11, July 25, and August 22, 1972

own fruit. This opportunity has also been attractive for people moving into the area and has been one factor in their selection of a residence. Real estate agents reported that most clients wanted some trees on their property; some only wanted a few trees to provide fruit for home consumption, while others preferred a small acreage with trees to look after as a hobby and the opportunity to supplement their income through sales at the farm gate. A total of twenty-five or 12.5 percent of the non-farm advertisements indicated that trees were located on the property. However, operating a small orchard as a hobby can be expensive and time-consuming and many people take out the trees after a few years. Nevertheless, a few fruit trees could have been an important factor in their initial decision.

The availability of water and other services is particularly important for the purchase of an undeveloped lot, especially in rural areas. An adequate supply of domestic water was listed in ten or 31.3 percent of rural land advertisements, while other services were listed in eight of the thirty-two advertisements.

A variety of other factors may have influenced an urban consumer's decision and many were mentioned in the real estate advertisements. They included such things as lake frontage (6.9 percent), privacy (7.7 percent), opportunity to keep animals (3.0 percent), farm potential (7.3 percent), owning a country home (3.4 percent), future subdivision (6.0 percent), investment potential (4.7 percent) and retirement (8.6 percent). The majority of these factors were listed in rural advertisements, indicating that much of the demand would conflict with agricultural land. Future subdivision potential and investment potential were considered attractive features for some purchasers who were buying land for speculative purposes.

All of the factors discussed above may have influenced an urban

consumer's decision. Virtually all of these points were listed in a single real estate brochure advertising a rural residential subdivision on Skaha Lake; items mentioned included orchards, good soil, view, beach, peace and quiet of country living, wildlife, water, services, and accessibility to an urban centre (Appendix D).

Another factor influencing an urban consumer's choice of living in a rural area has been the belief that rural living is less expensive; however, purchasers have not conducted a detailed examination of the comparative costs of rural and urban living. In fact, country living can be much more costly when garbage disposal, water supply, septic tanks, and commuting are taken into account.

A number of realtors interviewed suggested that the demands placed by about fifty percent of the potential purchasers would indicate a preference for rural living and that the factors that were considered important would point to orchard land as the most suitable residential location.

CHOICE PROCESS

An urban consumer's decision to purchase a residential property is constrained in the first place by the range of available sites on the market. It is the developer who must provide a variety of sites at various locations in order to meet the consumer's demand for a mixture of basic and amenity preferences. Realtors indicated that the particular mix of preferences was seldom completely fulfilled and that purchasers tended to relax their objectives by the time a final decision was made. This indicates that urban consumers follow the "satisficing" criteria although they will attempt to "maximize" where possible. In many cases, financial constraints limit the extent to which goals may be achieved.

The purpose of selecting a residential property is also limited by time and information constraints. Realtors also indicated that most customers did not have the time or inclination to conduct a thorough search procedure in order to assess all possible alternatives. Rather, consumers tended to accept the first satisfactory property that was discovered. This would indicate that an urban consumer does not adopt a completely conscious decision-making process in his selection of a residential location.

However, in the past, enough choices have been available to meet the preferences of urban consumers. Residential properties have been available in both urban and rural areas and many sites have provided the preferences for view, fruit trees, services etc. Urban residential sites have been available primarily in Penticton on the east side of the valley and at higher elevations providing an excellent view. In recent years, a number of urban size lots have also been available in Summerland. Rural properties have been available in a variety of lot sizes and at various locations throughout the valley. Particularly attractive areas have included Osoyoos, Kaleden and Summerland.

SUMMARY

Some orchardists have been forced out of orcharding by a combination of a cost-price squeeze and social pressures and one of the most profitable alternatives has been to sell the land for urban purposes, especially if the land was located close to an urban centre. Thus, land speculation has usually been the role of the orchardist. Developers have always been able to obtain an adequate supply of land for development; in fact, they have been able to purchase land by directly approaching an orchardist whose land has been in a desirable location. The most suitable land for

development has been located on orchard land which has provided an adequate supply of domestic water, roads, services, etc. Orchard land has also provided the amenity preferences of urban consumers, such as larger lots, view, fruit trees, and privacy. The developer is the most active agent in the land conversion process; it is the developer who makes the locational decision to purchase land for development and provides the options available to an urban consumer.

Thus, all decisions made in the land conversion process have facilitated the conversion of orchard land to urban uses. Urban encroachment has been a direct result of these decisions. In addition, the decision process has contributed to the scattering of small subdivisions throughout the southern Okanagan, alienating additional orchard land through social pressures, which in turn has contributed to the orchardist's decision to sell. Moreover, urban encroachment has continued in spite of public controls on land use. It would seem that public policies have been inadequate to prevent the loss of orchard land to urban development, if they were ever designed for this purpose. Perhaps they may have actually contributed to the process.

FOOTNOTES

1. Dorling, M.J., The Okanagan Apple Producer: His Management Attitudes and Behavior, Department of Agricultural Economics, Faculty of Agriculture, University of British Columbia, June, 1968, p. 5.
2. Overend, Miles, "Okanagan Fruit Growers Locked in Mortal Combat With Demands of Marketplace," Kelowna Capital News, October 27, 1971, p. 28.
3. Anonymous, comment made by an orchardist during interviews conducted by the author.
4. Brown, L.A. and E.A. Moore, "The Intra-Urban Migration Process: A Perspective," in Internal Structure of the City, edited by L.S. Bourne, New York: Oxford University Press, 1971, pp. 200-209.
5. The idea of basic and amenity requirements was brought out by several realtors during interviews conducted by the author.
6. Realtors' responses at the interviews varied between forty percent and sixty percent for rural demand.
7. This point has been discussed by L.H. Russwurm, "The Rural-Urban Fringe With Comparative Reference to London, Kitchener-Waterloo, and Sarnia," unpublished M.A. thesis, Department of Geography, London, Ontario: University of Western Ontario, 1961, p. 38.
8. These figures were obtained from interviews held with real estate agents.
9. This opinion was held by several realtors and was expressed during the interviews conducted by the author.
10. Gilgan, W.W., "The Patterns of Settlement," Regional District of Bulkley-Nechako, no date.

CHAPTER IV

THE ROLE OF PUBLIC POLICY IN LAND CONVERSION

The positive influence of property rights in land, none the less, continues to work and sometimes to confound and confuse the objectives of planning authorities.

Donald R. Denman, 1969, p. 2.

The conversion of land from rural to urban uses is the result of a number of independent but interrelated private decisions. However, these private decisions are influenced by public policy, which, through legislation, regulations, and programs, establishes the framework in which private land use decisions are made. Public policy specifies limitations on the use of land, as well as the procedures required if a change in land use is desired. In addition, public policy influences other factors involved in private decisions; it may change a site's locational characteristics by improving or developing roads, change a site's institutional characteristics by instituting zoning or changing zoning by-laws, alter the nature of risk and uncertainty associated with various uses of land by increasing price support of produce or tariff protection, or modify the socio-economic factors by stimulating the growth and development of particular regions or individual sectors of the economy. The combined affect of all policies serves to "influence the outward expansion of urban areas by imbalancing the relative attractiveness of competing areas."

The purpose of this chapter is to examine the nature of public policy which influenced the decisions to convert orchard land to urban

uses in the southern Okanagan prior to the land freeze of December 21, 1972. First, the traditional techniques utilized by public agencies to influence land use are examined in general terms. Second, a more detailed examination is made of the public policies which have influenced land use decisions in the southern Okanagan. Finally, an evaluation is made of the influence that these policies have had in preserving agricultural land.

PUBLIC INFLUENCE ON LAND USE

The private market mechanism system serves to allocate resources between various users according to supply and demand conducted through the pricing system. However, externalities occur in the production or consumption of resources. When these occur, public bodies enter the market system in order to minimize the externalities and to promote social goals that are not being met in the private system.

The right of the individual to use his land in his own best interest is the concept behind property rights, but the use of land may impose costs to other members of society and as such justifies the role of government in imposing restrictions on the use of land.³ However, there are limitations to the extent of these restrictions.

The abstract idea, that the development of space in metropolitan areas should be guided sounds nice, but a community can do very little without controls. There are strict limits to a community's authority over landowners and what should be done with their real estate.⁴

The problem is to reconcile the difference between public and private property rights. Since the turn of the century more and more restrictions have been placed on the use of land because "the failure of free competition to serve social ends has become apparent in many instances."⁵

These restrictions fall into three general categories: police power,

fiscal measures, and eminent domain.

POLICE POWER

The use of police power centres on the "inherent right of government to legislate for the advancement, preservation, and protection of the public health, safety, morals, convenience and welfare." ⁷ In relationship to land, "the police power regulates private property in the public interest" ⁸ in order "to see to it that people do not use land in a way that injures the public welfare." ⁹

The term police power applies to a wide variety of regulations, many of which are not related to land use or misuse. In the land use context, three methods are traditionally employed: subdivision regulations; zoning; and master plans. Other aspects of the police power, such as building codes, fire protection codes, sanitation regulations, etc., may indirectly influence land use decisions. As these regulations do not "involve compensation to the landowners, care must be taken to avoid too stringent restrictions which might be interpreted as confiscatory." ¹⁰

Subdivision Regulations

Subdivision regulations originated with the legal requirements for land registration associated with the selection and layout of early town-sites. ¹¹ In addition, they provided a system of registration for the purpose of property taxation. At present, subdivision regulations are "laws governing the process of converting new land into building sites," ¹² and specify "the conditions for dividing new land into lots and offering it for sale." ¹³ These regulations further specify the layout and arrangement of parcels, street design and construction, drainage, the supply of water and sewage facilities. ¹⁴

Most subdivision regulations require that new subdivisions be surveyed by licensed surveyors, that plot maps be prepared to show the location and boundaries of every lot and the location of the streets and other areas dedicated to public use, that the subdivision plot be approved by certain officials, and that it be officially registered.¹⁵

Thus, subdivision regulations influence one stage in the conversion of land from rural to urban uses but apply only if the use requires the creation of new legal parcels.

Zoning

Zoning is defined as the "division of land into districts having different regulations."¹⁶ Its origin was based on laws to prevent nuisance, that is, to prevent a parcel of land from being used in such a way that could have adverse effects on neighboring property. "The principle of controlling land use by districts was found to be a convenient way of protecting residential districts without the troublesome and expensive litigation required to obtain injunctive relief against nuisance."¹⁷

In general, zoning is justified because it is used to promote health, safety and welfare of the inhabitants of urban [and rural] areas. It is also used to encourage the city's economy, to protect social values and to bring some degree of order and rationality to the present and future development of the city.¹⁸

Essentially the "intent of zoning efforts is to avoid conflicts,"¹⁹ which is accomplished by defining various land use districts along with regulations which govern:

- 1) the height and bulk of buildings and other structures.
- 2) the area of a lot which may be covered and the size of required open spaces.
- 3) the density of population, and
- 4) the use of buildings and land for trade, industry or other purposes.²⁰

Zoning limits an individual's property rights in the use of land and therefore can influence land conversion decisions. However, it is a technique for controlling the use of an individual site and not a development plan for the entire community.

Master Plans

The development of zoning as a land use control, designed to promote private property interests, proved to be limited in dealing with the complexities of rapidly growing urban centres. Guidelines were needed with which to measure zoning decisions in terms of long range plans. "Urban and regional planning is the process of preparing in advance and in a reasonably systematic fashion, recommendations as to policies and courses of action to achieve accepted objectives in the common life of urban and regional communities." ²¹ To accomplish this aim, planning agencies produce a conceptual scheme of future development, generally known as a master plan, general or regional plan.

The master plan is generally comprised of a report and map which "serves as the overall blueprint for the physical development of the community." ²² This conceptual scheme is implemented through the application of various techniques; however, "zoning is probably the single most commonly used legal device available for implementing the land use plan of a community." ²³

FISCAL MEASURES

Another major area of influence on land conversion decisions results from the fiscal powers of governments. Fiscal measures include the power to collect revenue through taxation and to redistribute these assets for the benefit of society. These measures influence land use decisions by making some areas more attractive for development than others.

Taxation

"The taxing power provides the means by which governments collect the major portion of the revenues they use to finance their many operations and functions; and it also provides a tool they can use of various non-fiscal and regulatory purposes."²⁴ The most significant types of taxes are income, property and capital gains. Property taxes are the major source of revenue for municipalities. Taxes are primarily a means of collecting revenue, but can also be used to promote public policy objectives such as: "1) foster more intensive land use, 2) promote conservation and environmental goals, 3) attain particular tenure goals,²⁵ 4) influence investment decisions, and 5) enhance property values."

Taxation is not generally used to specifically control land use, but has an indirect influence on land conversion decisions by imbalancing the relative attractiveness of alternative areas. This is not usually done consciously, but results from a multitude of political jurisdictions having taxation powers. Taxes are generally lower in rural areas than in urban areas. Taxation can influence: "1) the landowner's estimated future stream of income and expenses; and 2) the present or future market value of the land,"²⁶ and therefore influence the use of the land or the decision to buy or sell land.

Expenditures

Another aspect of governmental functions is the expenditure of revenue to meet societal objectives. Funds are spent in a variety of ways which can influence private land use decisions, such as on roads, water supply, sewage, parks, schools, and through the financial support of specific sectors of the economy.²⁷ The provision of services can provide an incentive or disincentive to development in certain areas.²⁸

Land may be purchased for specific uses such as roads, recreation areas, open space, or land banks. This land can help to shape the pattern of future private development. Full ownership of land allows full control of its use. However, governments can also purchase partial rights to land and therefore influence its use. Though the acquisition of full or partial rights is expensive, it is the most effective tool in controlling
29
land use.

EMINENT DOMAIN

When the acquisition of land is deemed in the best interest of society, governments may enter into negotiations for purchase. If these fail, the government can fall back on the power of eminent domain, which
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allows it to take property for public use without the owner's consent. This is commonly called expropriation and involves the payment of compensation. Expropriation is used to acquire sites needed for roads, railways, utilities, parks and other public improvements. It is very seldom used to control urban development or to preserve agricultural land.

THE USE OF TECHNIQUES IN AGRICULTURAL LAND PRESERVATION

All of the traditional land use control techniques outlined above have limitations for shaping the pattern of urban growth and particularly for preserving agricultural land. The master plan is the only device designed to consider the form of future urban growth. Some of the techniques have been utilized to implement agricultural land preservation policies but their success has been limited by the nature of the techniques.

Subdivision regulations do not have direct influence on land use as they were not designed for this purpose, but rather to control the efficient layout of individual lots and to ensure that provision is made

for public services. They do not, however, have the power "to prohibit excessive subdivisions, but by enforcing high development standards the number of excess building lots may be minimized."³¹ In fact, most of these standards have not proven to be a hindrance to development. The amount of subdivision is entirely dependent upon the decisions of the private sector which initiates subdivision proceedings; the public agency can only react to the initiative.

In addition, the location of subdivisions cannot be influenced by these regulations. "Service and design requirements do not guarantee that the location of subdivisions will be compatible with the overall objective of the municipality, nor do they prevent residential development from surrounding and isolating farm land."³² Subdivision regulations are generally not tied to master plans, and therefore contribute very little to a positive development policy. The main weakness is that the technique was designed on a small scale basis, which is inadequate to assist in influencing large scale developments or to preserve agricultural land.

Zoning originated to protect individuals from the offensive actions of neighbours in their use of land by trying to ensure that land uses would be compatible. As such, zoning places restrictions on the use of land, which many authors feel to be a derogation of common law property rights.³³ Zoning has also been criticized as being a negative technique because it only regulates what cannot be done in particular areas and because its administration is defensive, used primarily to prevent undesirable development.³⁴ As zoning restricts or makes it more difficult to exercise a full range of future options on the use of land, its acceptance has been difficult in many areas, especially rural areas.

"Most farmers see urban development not as a threat, but as a promise -
 a possible windfall."³⁵ They view zoning as a good thing for their
 neighbour but not for their own property. Consequently, in most
 cases, zoning has been ineffective in preserving agricultural land.

Zoning is the main technique used to implement a master plan, but
 its success depends on how closely its application follows the plan.
 Zoning by-laws provide the opportunity for individual property owners to
 apply for re-zoning, and many authors suggest that it has been fairly
 easy to obtain approval.³⁶ Furthermore, "strong local commercial or
 political pressures can break them [zoning by-laws] down and, more to
 the point, they can be quite inequitable."³⁷ In fact, zoning is only
 successful as long as the property owner decides not to build or sell
 for other uses. As long as the owner maintains the status quo, zoning
 appears to be working efficiently.³⁸ In fact, "it may be easier and
 cheaper to break the existing zoning than to conform to it."³⁹

Both subdivision regulations and zoning by-laws are limited in
 the extent that they can influence urban growth and conversion of
 agricultural land to urban uses. This limitation is a result of the
 techniques being protective, reactive, and negative in nature and
 implementation; that is, they specify what cannot be done and the
 conditions and standards which must be met if development proceeds.
 "They prevent land use developments that the community deems undesirable,
 but of themselves they have no power to effectuate desirable develop-
 ments."⁴⁰

The revenue and expenditure functions of government also influence
 land use decisions; however, these techniques are seldom used for the
 purpose of directing land use change or as part of a coordinated approach

towards implementing a master plan. Except for certain taxation policies, these governmental functions are never used to preserve agricultural land. Taxation policies in the form of preferential assessment have been used in a few cases to preserve agricultural land, but the success has been limited in the long term because a farmer "is not going to forswear a large capital gain so suburbanites will have pretty scenery." ⁴¹ In some cases, it can help to accelerate the conversion process by providing a tax shelter for speculation. Specific techniques to preserve agricultural land utilizing preferential taxation and assessment are examined in more detail in Chapter V.

The value of the above land use control techniques in influencing land use decisions depends upon the coordination and cooperation of authorities having jurisdiction. These techniques "are a curious patchwork of devices, many an outgrowth of special-purpose efforts to meet particular problems and needs of their time, and many bearing the mark of the fragmented governmental situations that have prevailed during the period when the techniques evolved." ⁴² Agencies responsible for land use decisions are limited spatially by political boundaries. A region may be divided into several areas, each with differing objectives, powers, and methods of control. In addition, each political area has a variety of agencies and departments with responsibilities which may influence land use decisions. "The confused arrangement of local governments has also made it difficult to plan their physical and social development. ⁴³ As a consequence, growth has occurred in a disorderly fashion." The result is that some areas may be more attractive for development than others.

This geographical and functional fragmentation of responsibility

contributes to the difficulty of influencing land use decisions. For example, "it is conservatively estimated that in the Fraser Valley there are some 400 administrative and jurisdictional Boards, Agencies, Councils, Commissions and Departments. Almost all of these agencies influence the use of land and resources." ⁴⁴ Public influence on land use and the conversion of land from agricultural to urban uses depends upon the administrative arrangements for land use control and the techniques and tools available to public agencies.

PUBLIC INFLUENCE ON LAND USE IN THE SOUTHERN OKANAGAN

Public policies which influence land use decisions in the southern Okanagan are administered by a variety of agencies for a variety of purposes. These policies can be categorized in two ways; some policies are designed and administered to directly influence land use, while others indirectly influence land use and land use decisions even though they are designed for other purposes. Public policies will be examined in terms of the type of influence on land use and in terms of their contribution to the preservation of agricultural land.

ADMINISTRATIVE ARRANGEMENTS FOR LAND USE CONTROL

Public policies which influence land use in the southern Okanagan are implemented by a variety of administrative units including: the municipalities of Penticton and Summerland; the villages of Oliver and Osoyoos; the Regional District of Okanagan-Similkameen (R.D.O.S.); two Indian Reserves; numerous irrigation districts; and several other special purpose jurisdictions for taxation, schools, highways, etc. Thus, the administration of public policy exhibits a geographical fragmentation of responsibility. In addition, each administrative unit has different functions and responsibilities, some of which have functional overlaps,

as in the case of the regional district and irrigation districts.

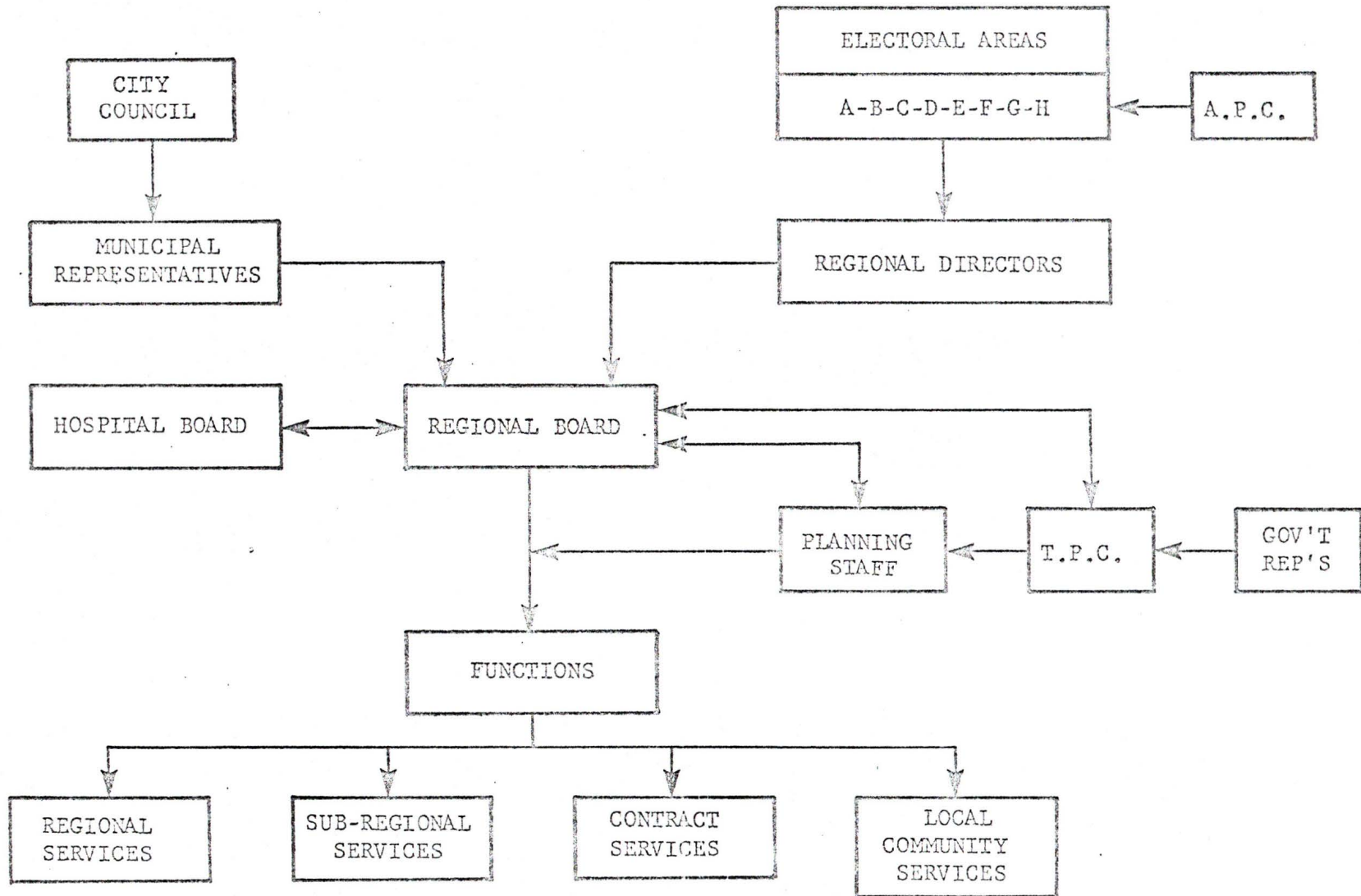
The power to control or influence land use in British Columbia is a provincial responsibility as delegated by the British North American Act of 1867. In turn, the province has further delegated some of this responsibility to local governments. The responsibility for control of land use is delegated to incorporated municipalities and regional districts by the Municipal Act. ⁴⁵ Municipalities and regional districts are "authorized to protect health, safety, convenience, morals, and the general well-being of the community, and to control the use of private property to protect these ends." ⁴⁶ Land use planning and control in urban areas is the responsibility of the municipalities of Penticton and Summerland, and the villages of Oliver and Osoyoos, while in rural areas it is the responsibility of the R.D.O.S. As the incorporated centres do not have planning departments, the R.D.O.S. provides planning services, but final decisions are still made by the respective municipalities.

The R.D.O.S. was incorporated by Letters Patent on March 4, 1966. The District's functions and responsibilities are also spelled out by Letters Patent, but its primary function is to provide land use planning in rural areas and the provision of special services. ⁴⁷ The land use planning function includes the responsibility to prepare a regional plan, develop and administer zoning by-laws, administer development areas and the power to enter into land use contracts.

The R.D.O.S. is governed by a Regional Board comprised of elected representatives from electoral areas A through H (A,C,D,E,F are included in the study area) and elected representatives of each municipality (Fig. 14). Each elected representative of the electoral area has an

FIGURE 14

ORGANIZATIONAL STRUCTURE OF THE REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN



Source: Regional District of Okanagan-Similkameen

Advisory Planning Commission, comprised of personnel from the electoral area, for the purpose of advising him on matters pertaining to his electoral area. The Regional Board also establishes a Technical Planning Committee, chaired by the Planning Director and comprised of representatives of various governmental departments at their option. Government agencies which may be represented include: the Lands Service, Water Resources Service, Agriculture, Highways, Forest Service, Fish and Wildlife, Parks Branch, Municipal Affairs, Mines and Petroleum Resources, School Board, Medical Health Officer, municipal employees, and any other departments or Crown agencies from the provincial or federal government as may be designated by the Minister. The function of the Technical Committee is to:

- a) advise the Regional Board on planning matters referred to it by the Board;
- b) act as a liason between the administration of the Regional Board and the respective departments of the government and the member municipalities.⁴⁸

The planning Director and planning staff carry on the day-to-day operations of the R.D.O.S., prepare long range plans, prepare zoning by-laws, act as a liason between the Board and Technical Planning Committee, and coordinate activities of members of the Technical Planning Committee. The Board makes the ultimate decision on master plans, zoning by-laws, and re-zoning applications after receiving recommendations for the Planning Director and the Technical Planning Committee, and after public hearings have been held.

The provincial government also retains certain responsibility for land use. All local governments are directly responsible to the Department of Municipal Affairs. Additional control on land use is delegated by the Environment and Land Use Act to the Environment and Land Use

Committee (a Ministerial Committee) which is empowered to recommend or institute programs relating to land use and the environment. Specifically the duty of the Committee is to:

- (a) establish and recommend programmes designed to foster increased public concern and awareness of the environment;
- (b) ensure that all the aspects of preservation and maintenance of the natural environment are fully considered in the administration of land use and resource development commensurate with a maximum beneficial land use, and minimize and prevent waste of such resources, and despoliation of the environment occasioned thereby;
- (c) if considered advisable, make recommendation to the Lieutenant-Governor in Council respecting any matter relating to the environment and the development and use of land and other natural resources;
- (d) inquire into and study any matter pertaining to the environment, or land use; and
- (e) prepare reports, and, if advisable, make recommendations for submission to the Lieutenant-Governor in Council.⁴⁹

Potentially this piece of legislation has broad and all-encompassing powers to influence land use. However, the majority of work done by this Committee has been to conduct studies of specific sites or problems. The most significant action affecting land use was to place a freeze on the subdivision of farmland by Orders in Council of December 21, 1972 and January 18, 1973. This change in public policy and its implications for land use decisions will be discussed in depth in Chapter V.

Although not established to provide land use control, irrigation districts provide an indirect influence on land use through the supply of services. Irrigation districts (improvement districts) are public bodies incorporated under the Water Act, whose "original purpose was to facilitate cooperative use of water resources in areas outside municipalities."⁵⁰ There are eleven irrigation districts located in the southern Okanagan. However, the power and functions of these districts have been expanded in most cases to include such things as fire protection, drainage, parks, cemeteries, garbage collection, and street lighting. In

addition, each district can adopt policies regarding the provision of water for urban development. In many cases, these functions conflict with those of the R.D.O.S.

A variety of other provincial legislation provides an indirect influence on land use through its implementation in the southern Okanagan. Taxation policies are administered by each municipality and by the provincial government for rural areas. Subdivision and health regulations provide conditions for land conversion, but are not directly concerned with influencing land use. The Health Act specifies regulations governing the disposal of domestic sewage and is administered by the Provincial Medical Health Officer of the South Okanagan Health Unit in Penticton. Subdivision regulations set standards for creation of new parcels of land and are administered by the municipalities or by the Department of Highways for rural areas. Finally, the Indian reserves are administered by the federal government and the use of land is independent of any other administrative unit.

The administrative arrangements for land use control in the southern Okanagan exhibit varying degrees of geographic and functional fragmentation. This situation can lead to variations in attractiveness for development throughout the valley, and therefore, influence private land use decisions. Whether or not this imbalance occurs will depend upon the techniques available to each administrative unit and the manner in which they are implemented.

DIRECT INFLUENCE ON LAND USE

Land use control techniques, designed and implemented to provide a direct influence on land use, are primarily administered through the R.D.O.S. and include regional planning, zoning, and land use contracts.

Additional power is available to local and provincial governments to control land use by the acquisition of land.

The Regional Plan

The Municipal Act specifies that each regional district shall prepare a regional plan which is a "general scheme without detail for the projected uses of land within the regional district, including the location of major highways," and the plan "may be expressed in maps, plans, reports, or by other means."⁵¹

The development of a regional plan in the R.D.O.S. has been under way for several years and involves the analysis of all factors relating to the past, present and future development of the region. Specific information being examined includes land use, physical factors, transportation and utilities, resources, recreation, fish and wildlife, population, and regional relationships. Phase one, a regional resource analysis, was adopted by by-law in December, 1974. Phase two, covering the urban aspects of the region, is expected to be completed in 1975.

Upon completion, the regional plan will provide an overall scheme of future growth and a guideline for zoning decisions, and as such, influence future land use patterns. Success will depend upon the final form and content of the plan, which in turn depends upon the attitude of the Regional Board. The acceptance of the plan will not guarantee orderly urban growth, as ultimately it will depend upon how closely the day-to-day decisions will comply with the plan.

Furthermore, a plan by any municipality is essentially passive or even negative. It does not create anything other than an atmosphere. It depends entirely on others taking an initiative, and then, provided there are teeth in the regulations and a willingness to use them, it only ensures that the initiative is not contrary to the plans.⁵²

Zoning

Zoning is the main technique for public influence on land use in the southern Okanagan and is the primary tool for implementing a regional plan. The Municipal Act indicates that Municipal Councils or Regional Boards may, by by-law:

- a) divide the whole or portion of the area of the municipality into zones and define each zone either by map, plan, or description, or any combination thereof;
- b) regulate the use of land, buildings, and structures including the surface of water, within such zones, and the regulations may be different for different zones and for different uses within a zone, and for the purpose of this clause the power to regulate includes the power to prohibit any particular use or uses in any specified zone or zones;
- c) regulate the size, shape, and siting of buildings and structures within such zones, and the regulations may be different for different zones and with respect to different uses within a zone;
- d) without limiting the generality of clause (b), require the owner or occupier of any building in any zone to provide off-street parking and loading space for such building, and may classify buildings and differentiate and discriminate between classes with the respect to the amount of space to be provided, and may exempt any class of building or any building existing at the time of adoption of the by-law from any of the requirements of this clause.⁵³

The development of zoning by-laws shall have regard for:

- a) The promotion of health, safety, convenience, and welfare of the public;
- b) The prevention of the overcrowding of land, the preservation of the amenities peculiar to any zone;
- c) The securing of adequate light, air, and access;
- d) The value of the land and the nature of its present and prospective use and occupancy;
- e) The character of each zone, the character of the building already erected, and the peculiar suitability of the zone for particular uses;
- f) The conservation of property values:

The Regional Board has the responsibility for developing a regional plan and zoning by-laws for the rural areas. The general procedure is to first prepare and adopt a regional plan and then to adopt complementary zoning by-laws. This procedure was reversed in the southern Okanagan as zoning by-laws, reflecting the existing land use pattern, were first prepared for each electoral area. Electoral area A adopted its by-laws in February 1973, area C in January 1970, area D in April 1970, area E in July 1972, and electoral area F in April 1970. These zoning by-laws are regarded as a step toward developing the regional plan and will be revised after the adoption of the plan.

Zoning by-laws in each electoral area divide the area into districts, and for each district minimum lot sizes and permissible uses are specified (Appendix E). In addition, the by-laws set development control standards for such things as parking, set-backs, height, etc. The minimum lot size indicates the area required for the construction of uses permitted in each district unless other and more stringent requirements are imposed by the Department of Health or an irrigation district. Land uses and lot sizes which existed at the time of the adoption of the by-law were permitted to continue.

The zoning by-laws for all electoral areas are very similar. Seventeen zoning districts are identified in the by-laws and include forestry/grazing (F-G), agricultural/residential (A-R), low density residential (R-1), low density residential (R-1A), multi-family (R-2), mobile home park (R-1M), mobile home and factory built units (R-1R), resort cottage (RC-1), local commercial (C-1), highway commercial (C-2), central business (C-3), tourist commercial (CT-1), tourist commercial (CT-2), rural recreational (RR-1), general industrial (M-2), heavy industrial (M-3), and public parks (P-1). The minimum lot size for the

F-G district varies for each electoral area; electoral areas A and C have a three acre minimum, and electoral areas D, E, and F have a ten acre minimum.

Zoning by-laws provide a fairly tight control over most land uses except residential, which is permitted in most districts (Appendix E). The A-R district is the weakest for controlling development because it is essentially a catch-all category and the minimum parcel size is quite small. Consequently, it does not preserve agricultural land or control residential development; most of the orchard land is zoned A-R, allowing both orcharding and urban development. These limitations in the zoning by-laws are a result of concessions made at the time of adoption of the by-laws. Proposed zoning by-laws met a great deal of opposition from orchardists, who considered zoning as an infringement on their rights; therefore, by-laws were only accepted that still provided the orchardist an opportunity to subdivide his land. Zoning by-laws were unable to incorporate agricultural land preservation objectives.

Land Use Contract

The Municipal Act provides the opportunity for a municipality or a regional district to enter into a "land use contract" with a landowner, which contains conditions for the use of land agreed to by both parties. As such, it is a technique that provides for public influence over land use through the exercise of performance standards. Land use contracts can only be negotiated after the land in question has been designated a "development area," which voids any prior zoning restriction. The advantage of this technique is that it allows flexibility in dealing with development proposals, whereas zoning is fairly restrictive. The

contract forms a restrictive covenant which is registered in the Land Registry Office and runs with the land title. This technique is only used in cases where a development requires special considerations, such as large scale developments, multiple use developments, or where performance is important. The contract should be used to set higher standards than could be achieved through zoning.

The land use contract can be a powerful and useful tool in influencing land use, but its success depends on actions of the planners and the Regional Board. Its use is also limited because of the complicated negotiations between the public and private parties which are needed to arrive at a mutually acceptable solution; the process can become costly and time consuming.

Land Acquisition

The most direct public control of land use accrues from outright ownership, which can be obtained by purchase or expropriation. In British Columbia, a municipality may "acquire for municipal purposes by purchase, gift, lease, or otherwise, any real property and any rights, easements, rights-of-way, or privileges in and to real property from Canada or the Province, or from any person." Municipal owned land may be developed "for residential, commercial, or industrial area, or any combination of such uses, and provide such works and services as are deemed necessary or beneficial to the development." Thus, the municipalities of Penticton and Summerland, and the villages of Oliver and Osoyoos can acquire and dispose of land for urban purposes. To date, these powers have only been used to provide urban services, such as roads, utilities, parks, and public buildings. No attempts have been made to provide land for urban development or to purchase the development

rights to land in order to preserve agricultural land.

The powers of the R.D.O.S. are designated by Letters Patent, which state that the R.D.O.S. has "for the purpose of exercising its powers, duties, and obligations, the full power to acquire, hold, and dispose of real and personal property."⁵⁹ Most of the powers delegated to the R.D.O.S. by Letters Patent are regulatory in nature and do not require the ownership of land. In addition, land acquisition is extremely costly and beyond the financial capability of local governments. Thus, the power of the R.D.O.S. to control urban or agricultural land use by acquisitions is virtually non-existent.

On March 17, 1972, the Provincial Government passed the Green Belt Protection Fund Act to "encourage the establishment and preservation of areas of land, commonly known as 'green belts', throughout the Province."⁶⁰ A total of \$25 million was set aside for the purpose of acquiring land to be used as park lands, forestry reserves, for lease as farms or any other purpose which may be designated. The Act is administered by the Environment and Land Use Committee, and to date, approximately \$12 million has been spent, the majority to purchase farm land as open space adjacent to major highways.⁶¹ Most of this amount has been spent in the Lower Fraser Valley and on Vancouver Island. Only one farm of 21.6 acres has been purchased in the Okanagan, and this was located in Kelowna. This fund will not be effective in preserving farm land or in shaping urban growth as \$25 million is not sufficient to purchase any significant amount of land, especially when the fund applies to the entire province. In addition to the Green Belt Protection Fund Act, various other provincial departments have the authority to purchase land for special purposes, such as parks, highways, waterworks, etc. However,

these programs are not designed or implemented to control urban growth or preserve agricultural land.

INDIRECT INFLUENCE ON LAND USE

In addition to the techniques and policies outlined above, a number of other public policies influence land use in the southern Okanagan, even though they are designed and administered for other purposes. These policies either influence land conversion decisions or are an integral part of the procedures and approvals necessary for conversion.

Subdivision Regulations

Subdivision regulations applicable to the southern Okanagan are provided in B.C. Regulation 262/70 pursuant to the Local Services Act. These regulations govern the manner in which land is divided into individual parcels and are imposed to ensure that a proposed subdivision is: (1) suited to the configuration of the land; (2) suited to the intended use; and (3) that it does not make impracticable the further subdivision of the land or of adjacent properties. To accomplish these objectives, the regulations specify conditions for the provision of roads, parking requirements, and parcel size requirements in relation to water supply and sewage disposal systems.

Water Supply

An adequate supply of water is essential for both orcharding and urban development. Domestic and irrigation water is supplied by municipalities, irrigation districts, or private systems, and each supplier of water requires a licence as specified by the Water Act. Irrigation districts are the main suppliers of water in rural areas and

can impose restrictions on minimum lot sizes that will be serviced, or control the location where services will be provided. These powers can greatly influence the location of development and whether or not development will be allowed. However, in the past, water has been readily supplied for urban development by both municipalities and irrigation districts. In fact, some districts have encouraged development because they could obtain more revenue for domestic water. Consequently, some irrigation districts have experienced water shortages because of the increased demand, and have been changing toward more restrictive policies. For example, the amount of growth in the Kaleden area severely taxed the irrigation district's resources. The result was that the irrigation district refused to service any additional subdivisions. The provision or control of water has rarely been used to prevent urban development or to preserve agricultural land. Restrictive policies have only been introduced when the water resource is limited. 62

Water availability has played a major part in land use decisions, especially decisions to convert orchard land to urban uses. As domestic water supply is largely controlled by municipalities and irrigation districts, which are located on good agricultural land, water provision policies have directly contributed to the loss of agricultural land to urban development. The lack of a water supply to marginal land has limited the option of utilizing this type of land for development.

Health Regulations

Rural residential development in the southern Okanagan utilizes septic tanks for the disposal of domestic sewage. Regulations governing sewage disposal, pursuant to the Health Act, provide control over the disposal of domestic sewage from single family homes or duplexes which

discharge less than 5,000 gallons per day. For all new construction, a permit is required before the installation of a septic tank. The regulations specify the size and construction of the septic tank and the size of the drainage field required.

The sewage disposal regulations are administered by the Medical Health Officer, who has the authority to refuse permits if the development is located on a flood plain or in an area of poor drainage. In the southern Okanagan, the good agricultural land for orchard production also has the soil characteristics suitable for septic tank disposal, while some areas of marginal agricultural land are also considered marginal for septic tanks. ⁶³ Thus, acceptable areas for sewage disposal tend to coincide with agricultural areas, which also serves to reduce the range of choice of locations for urban development.

Taxation

Taxation on property and improvements is levied in order to pay the costs of providing public services. Property taxation is a provincial responsibility which is in turn delegated to municipalities by the Municipal Act. Taxes in rural areas are collected by the provincial government. The amount of taxes paid depends on the assessment rates (a percentage of market value), and the mill rate (the charge levied against the assessment).

Assessment rates vary between rural and urban areas and between municipalities. Land and improvements in Summerland and Penticton are assessed at 100 percent of market value, while the assessment in Oliver, Osoyoos, and rural areas is based on approximately fifty percent of market value. The mill rate in any particular area is a combination of mill rates assigned for different purposes, including general, school,

hospital, debt, fire, and regional district. The total mill rate varies between municipalities; in 1971, Penticton had a mill rate of 51.73, Summerland 47.51, Oliver 58.36, and Osoyoos 53.62 mills. ⁶⁴ The rural areas have a general mill rate of ten mills. Even when the other rates are added the total rate is still lower than in urban areas. Differences in assessment and mill rates from one area to another result in lower taxes for some areas. Some people consider these differences in their decision to purchase a home. However, the level of services provided in rural areas is also lower than urban areas. When consideration ⁶⁵ is given to services, very little difference in total cost is evident.

Farm land in both municipal and rural areas is taxed at a lower rate than urban uses. In municipalities, land of more than five acres in area may be classified as farm land for taxation purposes, after consideration is given to the proportion of the land actually under ⁶⁶ cultivation, the time devoted to farming, and the value of the produce. In rural areas, land of more than two acres in area may be classified ⁶⁷ as farm land using similar criteria.

Property which obtains the classification of farm land is able to procure considerable taxation relief benefits. The assessed value of land and improvements for all properties is based upon fifty percent of market value, however, farm land must "be assessed at the value which the same have for such purposes without regard to their value for any ⁶⁸ other purpose or purposes." Once land is classified as farm land for taxation purposes, it can receive a number of tax exemptions. Up to \$1,000 may be exempted per farm for school purposes. Improvements used in the operation may be exempted to a maximum to \$5,000 and the value of fruit trees are exempt. In addition, farms in rural areas are taxed at

a general rate of five mills, while non-farm uses are taxed at ten mills. These exemptions allow farms to realize a lower tax cost than non-farm uses.

The definition of farm land is rather vague, and its administration is up to the individual assessor. The result has been that many small holdings, rural residential developments or land held in speculation, have been able to obtain farm land classification with minimal agricultural production and thereby receive tax relief. The taxation reduction advantages of having land classified as a farm contributes to the development of rural residences and to the existence of a large number of "hobby farms," and may explain why in Chapter II the data showed that a large number of rural lots were over two acres in size, and that a large number of orchards were between two and five acres in size. In addition, both urban and rural properties can qualify for the provincial government's Home Owners' Grant. In 1973, this grant was \$200.00, with the result that many properties only paid a token tax of one dollar.

Taxation can influence land use decisions by affecting the costs of farm operations, the costs of owning a home in various areas, or the costs of holding land for speculation. As such, it can influence the choice of location for new development by providing economic incentives or disincentives for such a choice. Taxes probably played a part in the decisions to live in Kaleden and Summerland, two rapidly expanding areas close to Penticton. Although property taxation plays a major role in the conversion of agricultural land to urban uses, it has not been used as a tool to shape urban growth or to preserve agricultural land. It could, however, provide a powerful tool if directed toward these objectives, especially if it was used in conjunction with zoning as a

method of implementing a regional plan.

Miscellaneous

The public policies and land use control techniques discussed above directly or indirectly influence land use decisions. However, almost every public action may have an indirect influence on land use decisions. For example, the federal government's Regional Development Incentives Program stimulated the expansion of secondary manufacturing, and in turn population growth and the demand for new residences. Orchardists' decisions to sell are influenced by low returns on production which may be influenced by the marketing system and by the lack of tariff protection against the importation of United States fruit.

The developer's locational decisions are influenced by the availability of land and the attractiveness of land at various locations. The A.R.D.A. assistance for irrigation systems helped provide orchard land with the necessary water supply for both agricultural and domestic purposes. Although C.M.H.C. would not provide mortgages for homes not serviced by a community sewer system, mortgages for rural properties have been readily available from other lending institutions. The provincial government has provided low interest second mortgages for new homes, thereby helping to stimulate new single-family construction. These and many other programs influence the land conversion process and many provide an incentive to convert agricultural land to urban uses.

LAND CONVERSION PROCEDURES

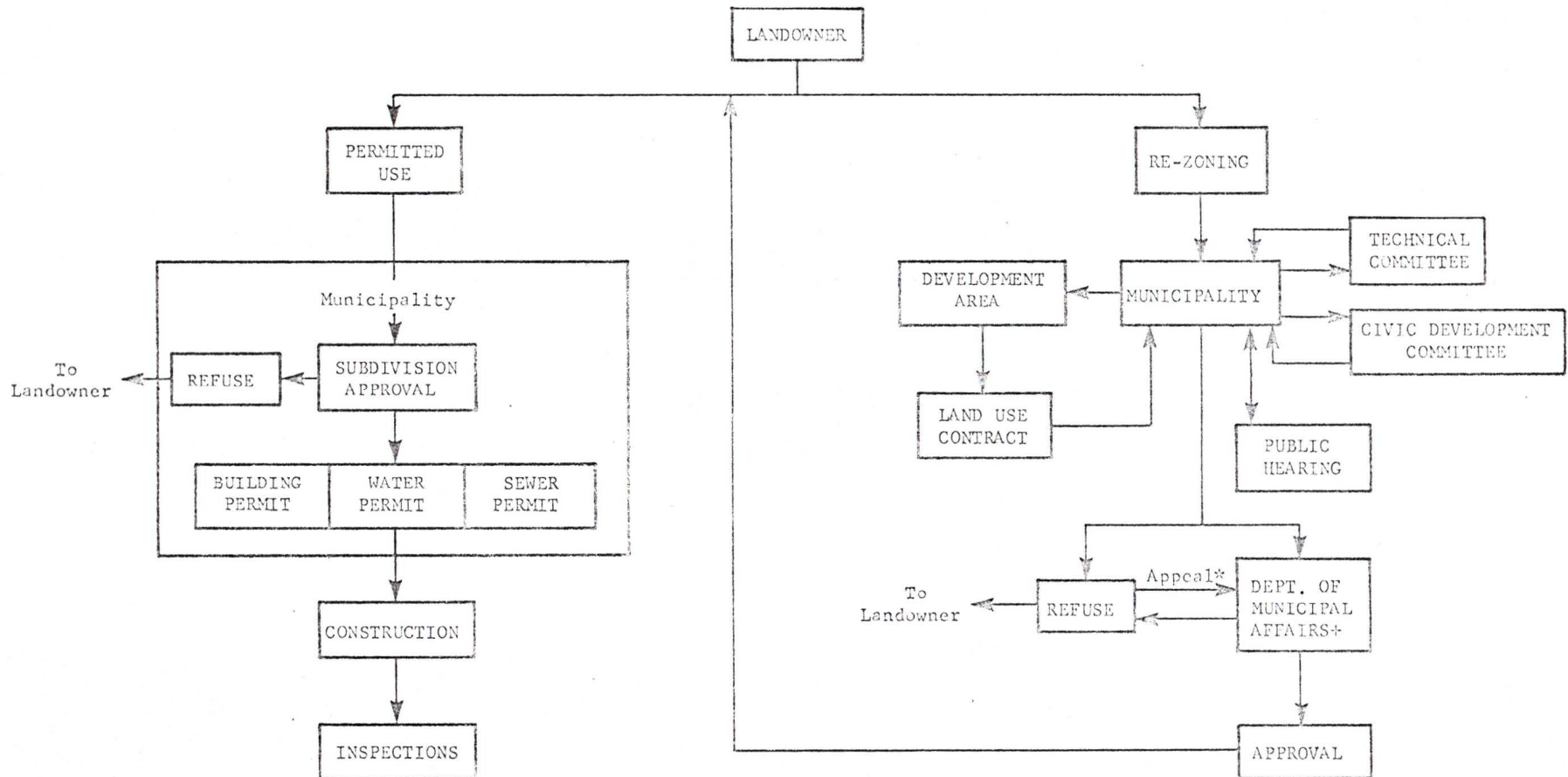
The conversion of land from rural to urban uses in the southern Okanagan requires a complicated series of procedures before development can proceed. The procedures and criteria are established by public

policy, with different agencies being involved at various steps in the process. The conversion process depends upon private initiative, with government agencies reacting to this initiative on the basis of the regulations each agency is authorized to enforce. The process in the southern Okanagan involves three basic steps: the process of obtaining re-zoning if required; the process of obtaining subdivision approval; and the process of obtaining the necessary permits for development. However, the process varies slightly, depending upon whether the proposed development is located in an urban or a rural area (Figs. 15 and 16).

The first step in the conversion of land from rural to urban uses depends upon whether or not the intended use is permitted under the zoning by-law. If the use is permitted, the landowner can proceed with the approvals needed for subdivision and development. If the use is not permitted, the landowner must apply for re-zoning to the municipality concerned or to the R.D.O.S. if the land is in a rural area. Within a municipality, the application is considered by Council after circulation to a technical committee, a civic development committee, and after a public hearing has been held. The technical committee is made up of representatives of municipal and provincial government departments, including the R.D.O.S. If the application is refused, the landowner may re-apply after some of the objections are eliminated, or enter into negotiations for a land use contract. If accepted, the intended use will be in conformity with the zoning by-law and the landowner can proceed with a subdivision application.

An application for re-zoning in rural areas is processed by the R.D.O.S. The final decision is made by the Regional Board after circulation for comments to the Technical Planning Committee, the Advisory Planning Commission of the electoral area, and after a public

FIGURE 15
 LAND CONVERSION PROCEDURES: MUNICIPALITIES

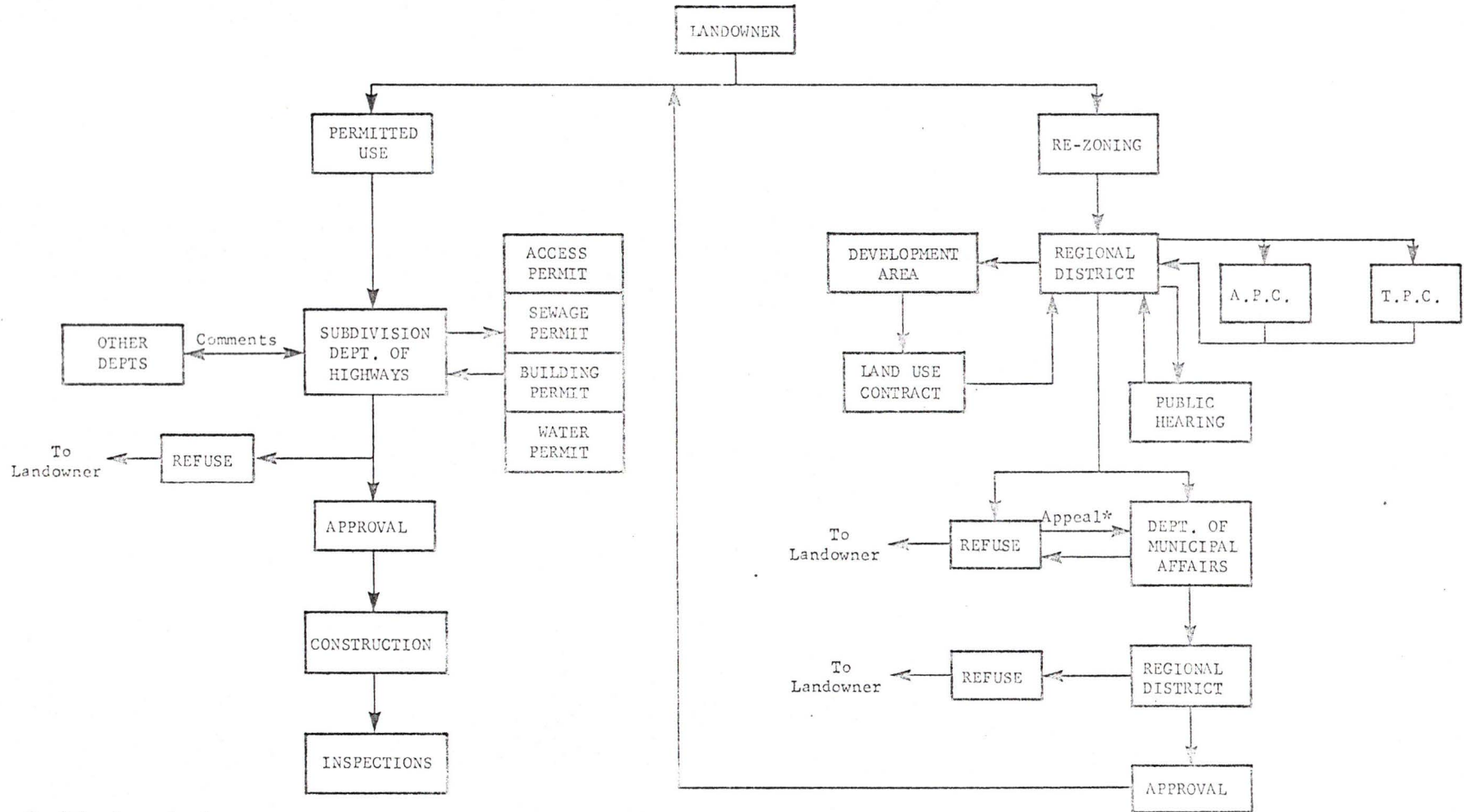


+ Approval needed only if the proposal affects a designated highway

* Only for a land use contract

FIGURE 16

LAND CONVERSION PROCEDURES: RURAL AREAS



* Only for a land use contract

hearing has been held. If refused, the landowner has the option of re-applying or negotiating a land use contract.

Since the adoption of the zoning by-laws, the R.D.O.S. has processed a number of re-zoning applications for rural areas. As of November 20, 1973, a total of seventy-nine applications had been processed for electoral areas A,C,D,E, and F (Table XX).

TABLE XX

RE-ZONING APPLICATIONS: RURAL AREAS

ELECTORAL AREA	SUBMITTED	ACCEPTED	REFUSED	PENDING
A	15		8	7
C	3		1	2
D	43	19	21	3
E	17	6	6	5
F	1		1	
TOTAL	79	25	37	17

SOURCE: Regional District of Okanagan-Similkameen

The most active area was "D" (Kaleden-Okanagan Falls) with forty-three applications; of those processed, 47.5 percent were approved. Out of the total applications for all areas, twenty-five were accepted (40.4 percent of those processed) and thirty-seven refused. Reasons for refusing re-zoning applications included prime orchard land, sewage disposal problems, pedestrian traffic hazard, too far from urban development, inadequate services, poor access, poor parking, or a lack of water supply.

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A land use contract may be negotiated between a landowner and a municipality or the R.D.O.S., in which the zoning regulations are waived and new and legally binding regulations are drawn up which are acceptable

to both parties. However, the land in question must first be designated as a "development area."⁷² Approval of a land use contract requires the same procedures as a re-zoning application. In some cases, a land use contract may be recommended by the R.D.O.S.

When the proposed development is in accord with the zoning by-law, approvals are needed only for subdivision and development, and procedures vary between urban and rural areas. The first step involves subdivision approval. Within municipal boundaries the approving officer is bound by the subdivision regulations and the policies of the municipality. When the development is located in a rural area and subdivision is required, a preliminary layout application is first made to the Approving Officer of the Department of Highways, and proof must be given to show that the land has an adequate percolation rate and an adequate water supply. The Approving Officer may forward copies of the applications to other agencies for comments. This procedure is not required nor does he have to consider any of the comments in his decision. Considerable negotiations take place during this stage between the landowner, the Department of Highways and other government agencies. After preliminary approval is granted, the landowner has to apply for all the necessary permits covering sewer, water, utilities, etc. Official subdivision application is then made based on a survey by a British Columbia Land Surveyor,⁷³ along with all the necessary permits.⁷⁴ When all of these procedures have been followed the development may proceed subject to periodic inspections.

These land conversion procedures can be quite complicated and time consuming for the landowner and may discourage individual landowners from following the process. If a development has to follow all procedures, it may be difficult to predict the final outcome unless the

landowner is familiar with the process. Before a developer enters the process he is fairly sure of the final decision. These procedures are a necessary part of the land conversion process and provide a means whereby the public sector can exert some influence and control over development. However, they are intended to control specific parts of the process with each stage being administered separately and not part of a unified approach to controlling development.

THE INFLUENCE ON ORCHARD LAND

Public policies that influenced land use in the southern Okanagan, prior to the land freeze of December 21, 1972, included a variety of policies and techniques administered by numerous agencies for different purposes. Some policies were administered to directly influence land use, while others indirectly influenced land use even though they were designed for the other purposes. Consequently, the policies had different effects on controlling urban growth and preserving orchard land.

Policies aimed at directly influencing land use were very limited in number and scope. A complete regional plan had yet to be adopted and land acquisition programs for controlling growth or preserving orchard land were nonexistent. Zoning was the only technique available to control land use, but its implementation was limited because of the absence of a regional plan to guide re-zoning decisions. In addition, zoning by-laws required local public approval which was impossible to obtain if the by-law contained strict controls on urban growth and attempted to preserve orchard land. Consequently, the by-laws that were adopted allowed residential development in most districts, including the A-R district, which included most of the orchard land. The minimum

parcel size was not large enough to prevent development because large lot zoning was unacceptable to the public. Public control of land use was primarily designed to prevent non-compatible uses locating next to each other and zoning could ensure the compatibility of land uses in most cases, with the exception of the agricultural-residential conflict. Moreover, zoning by-laws were ineffective in controlling the location and pattern of residential growth because this depended upon the private initiative. As a result, zoning by-laws were unable to preserve orchard land because they were not designed for this purpose; in fact, they served to encourage urban development on orchard land because in most cases marginal land was zoned F-G with a minimum parcel size of ten acres.

Other public policies indirectly influenced land use by influencing the locational decisions of the private sector and in most cases directed or encouraged urban development to locate on orchard land. Subdivision regulations were primarily concerned with access and the efficient layout of parcels. A domestic water supply was most readily available from municipalities and irrigation districts and the supply systems were located on orchard land. Rural residential development required septic tanks for the disposal of domestic sewage and therefore required land with good drainage; in most instances, this type of land was also good agricultural land. Finally, taxation policies made rural orchard land the most attractive for development, especially if a resident could obtain farm classification. Although policies were not directed toward influencing urban growth or preserving agricultural land, they actually contributed to urban encroachment on orchard land by making this type of land the most attractive or feasible for development.

In summary, direct public influence on land use was unable to prevent urban development locating on orchard land, while other policies actually stimulated the conversion of orchard land to urban uses. Consequently, it became evident that locally designed and adopted public policies were inadequate to administer broader objectives, such as the preservation of agricultural land. With this in mind, the provincial government placed a freeze on the subdivision of agricultural land on December 21, 1972, and the Land Commission Act, designed to preserve agricultural land under provincial control, was adopted on April 17, 1973.

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45. British Columbia, Municipal Act, R.S.B.C., 1960, Chapter 255, Consolidated for Convenience, July 1, 1972.
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47. Functions and powers of the Regional District of Okanagan-Similkameen include:
 - the power to acquire and dispose of property
 - the power of Sections 795 and 798D of the Municipal Act
 - contract work for municipalities
 - Part XVI of the Municipal Act, except sections 589 and 590
 - Osoyoos Centennial Community Centre
 - noxious insect control
 - Oliver and District Skating Arena
 - garbage disposal - electoral area A and Osoyoos
 - participation on the Okanagan Basin Water Board
 - the power to regulate the sale of produce, shows, health regulations, nuisances and disturbances as provided by Sections 458N, clause(a); 634; 870, clauses (b) to (i) inclusive of the Municipal Act
 - soil removal
 - German Measles immunization programme
 - garbage disposal in Penticton, Kaleden, Naramata and West Bench
 Additional functions may be added by Letters Patent at the discretion of the Regional Board
48. British Columbia, Municipal Act, Section 798B, paragraph (2).
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CHAPTER V

THE PRESERVATION OF AGRICULTURAL LAND:

THE B.C. LAND COMMISSION ACT

There is nothing more difficult to carry, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things. For the reformer has enemies in all who profit by the old order, and only luke-warm defenders in all those who could profit by the new order. This luke-warmness arises partly from fear of their adversaries, who have the law in their favour; and partly from the incredulity of mankind, who do not truly believe in anything new until they have had actual experience of it.

Machiavelli, The Prince, 1513

Public policies designed to influence land use may be implemented when the developing pattern of land use causes problems and conflicts, which are deemed to be contrary to the best interests of society. The loss of agricultural land to urban development is one conflict which has received a great deal of attention in recent years. Concern over this loss has prompted many governments to adopt new legislation in an attempt to preserve agricultural land.

New legislation is deemed necessary because in most cases existing land use policies are inadequate to solve the problems. In fact, they can actually contribute to the problem, as shown in chapter IV. Traditional land use controls, such as master plans, zoning, and subdivision regulations, are designed and administered for purposes other than the preservation of agricultural land.

This chapter examines the nature of some attempts that have been implemented to preserve agricultural land in North America. The emphasis is on preservation of agricultural land rather than on urban containment

policies, although it is recognized that the latter policies may in effect preserve agricultural land. The bulk of the chapter is concerned with the B.C. Land Commission Act, a recent change in public policy in British Columbia designed to preserve agricultural land. An examination is made of the introduction and initial public reaction to the legislation, the content and administration of the Act, its projected impact on the land conversion process in the Okanagan, and finally a discussion of the limitations and implications of the Act.

ATTEMPTS TO PRESERVE AGRICULTURAL LAND

One of the first major attempts to preserve agricultural land was tried in Santa Clara County, California, in the mid-1950s. Farmers were concerned over the rise in taxes and assessments as urban development encroached on their land. As a result, the farmers pressured for the establishment of exclusive agricultural zones, within whose limits "there could only be farming - no subdivisions, no commercial establishments."¹ Exclusive zoning allows only one type of use within the zone, as distinct from cumulative zoning, which ranks the zones from restricted to unrestricted. The unrestricted zones allow all uses from the previous zones. "Cumulative-type farm zoning districts are not the best tools for holding areas of this kind in agriculture for the longer term."² Most planning agencies utilize this latter type of zoning because of political acceptability.

The exclusive agricultural zones developed by California farmers worked well initially. "By 1958, some 40,000 acres of farmland had been zoned; by 1960, 70,000 acres."³ Developers then raised their offers for the land. "Farmers began to ponder. They had gotten themselves zones; they could get themselves unzoned."⁴ By 1965, 5,000 acres had been depleted from the agricultural zones. Zoning, whether restrictive or

cumulative, suffers from a major shortcoming, the relative ease of rezoning.

Public policies in North America designed specifically to preserve agricultural land primarily revolve around a manipulation of property taxes, either through tax deferment or preferential assessment. The most common method is "preferential assessment," which provides "that land which is actively devoted to farming shall be assessed on the basis of its value for agriculture, and that other potential uses, such as housing subdivisions, shall be ignored."⁵ Preferential assessment takes some of the tax pressures off farmers with the hope that this will be all that is required for a farmer to decide not to sell his land. Legislation providing for preferential assessment of agricultural land has been enacted by numerous states, including California and Florida in 1957, and Connecticut and New Jersey in 1963.⁶ A number of other states introduced legislation but failed to obtain approval.

The preferential assessment approach has serious problems, in fact, it may actually contribute to urban sprawl rather than its prevention.

Opponents argue that nonfarmer speculators succeed in getting their land classified as farmland by conducting very minimal farming operations on it, and that the laws benefit these speculators more than they do the bona fide farmers; that is, the laws simply subsidize individuals who are holding land for eventual urban uses, rather than serving to preserve agriculture.⁷

Whyte feels that preferential assessment will be ineffective in preventing the conversion of open space or agricultural land, because "even if the speculator is weeded out and only the true farmer benefits, the true farmer is going to do what anybody else would do. When the price is right, he is going to sell out, low taxes or no. And why should he not?"⁸

Because of these limitations, suggestions have been made to reverse the assessment structure; that is, to assess agricultural land or open space close to cities to its maximum. "Full-value taxation would force the most developable land into development earlier, and thereby relieve the pressure on further-out land. The result: more orderly development, less urban sprawl." ⁹ As far as could be determined, this technique has not been deliberately used to control growth.

In order to overcome the objections to the preferential approach, an alternative system has been utilized based upon a tax deferral. In this system, agricultural land is granted preferential assessment, however, the owner would pay retroactive back taxes when the land was converted to other uses. "While it was farmed, the owner would be taxed only on farm value; if and when the land was developed, the owner would retroactively pay the additional taxes that otherwise would have ¹⁰ applied." Both Oregon and New Jersey have instituted legislation based upon this approach.

Both preferential assessment and tax deferral techniques have met a great deal of opposition. Farmers, speculators and developers oppose tax deferral because it makes it difficult for them to exercise future options. Many planners argue that tax deferral and preferential assessment are inadequate because they ignore the role of planning agencies. They suggest that taxation should be tied in to land use zoning; farmland would receive preferential assessment only in areas specified as agricultural or open space zones.

In 1965, the California Land Conservation Act was passed in an attempt to combine taxation and zoning policies which provided for "binding contracts between the landowner and the local government, before

land will be assessed on the basis of its value in agriculture." ¹¹ The purpose of the act was to:

provide a relatively stable environment with regard to use of agricultural land and agricultural land values near centres of urbanization such that both the landowner and the local government agencies can plan, with a relatively high degree of certainty, the timing of future land use transitions.¹²

"The heart of the legislation involves voluntary contracting of non-agricultural development rights for a specified period of years," ¹³ as such, the assessment is then based upon the agricultural value of the land.

"The first step in implementing the Land Conservation Act is the designation of an 'agricultural preserve'." ¹⁴ Once the "preserve" has been defined and adopted, the county can offer contracts to the "prime land owners" and agreements to the "non-prime land owners." These contracts and agreements depend upon the voluntary compliance of land owners, and are transferable with the title of the land.

For prime land contracts, the land must meet the following conditions: "1) land to be contracted must be devoted to agricultural use, (2) it must be located within a defined agricultural preserve, and (3) it must be prime agricultural land." ¹⁵ The contract has a term of ten years, which is automatically renewed each year, unless either the landowner or the government choose not to do so. It is essentially a compensable contract in that in the event of a rise in assessed value, the county must pay the landowner a tax offset payment of \$5.00 for each \$100.00 increase in assessed valuation. As taxes on the \$100.00 increase would be lower than the \$5.00, the county would lose money if the assessment is raised. ¹⁶ Agreements cover non-prime land or prime land

in a reserve of less than 100 acres, and terms are negotiated between

the landowner and the government. No allowance is made for tax offset payments and the "effect on assessments ... will depend upon the length of the agreement and firmness of its terms."¹⁷

The legislation seems limited on a number of points. First, the schemes depends entirely upon voluntary participation on the part of the landowner; only if the landowner determines that he will stay in farming for at least ten years would it be to his advantage to subscribe to the plan. Second, an individual may break the contract at any time, though it would still take ten years to expire. If a landowner could determine that he would like to sell in ten years, he could sell to other uses at that time. Third, the system depends upon the negotiation of contracts with individual property owners, which is costly and time consuming to administer.

Very little has been written about the success of this piece of legislation; however, Kerr has made some observations regarding Orange County, California. He suggests that "based on historical population trends and associated acreage decline, it is hypothesized that no significant agricultural acreage will remain after 1990 despite ... the implementation of the Land Conservation Act."¹⁸ Nevertheless, in 1971, New York State introduced farm preservation legislation very similar to the California Land Conservation Act.

A more comprehensive approach to land use planning was instituted in Hawaii in 1961 through the Land Use Law. It was instituted because:

Inadequate controls have caused many of Hawaii's limited and valuable lands to be used for purposes that may have short-term gain to a few but result in a long-term loss to the income and growth potential of our economy. Inadequate basis for assessing lands according to their value in those uses that can best serve both the well-being of the owner and the well-being of the public have resulted in inequities in the tax burden, contributing to the forcing of land resources into uses that do not best serve the welfare of the State. Scattered subdivisions with expensive,

yet reduced, public services; the shifting of prime agricultural lands into nonrevenue producing residential uses when other lands are available that could serve adequately the urban needs; failure to utilize fully multiple-purpose lands; these are evidences of the need for public concern and action.¹⁹

The Act vested the authority for zoning in a nine member State Land Use Commission, although some zoning powers were delegated to other government agencies. All lands were zoned, "with land classified into 'agricultural', 'conservation', and 'urban' zones - later weakened by the addition of a catchall 'rural' zone."²⁰ The Act and regulations specify the uses permitted in each district. A change in the boundaries of a district requires a recommendation by the County Planning Commission,²¹ a public hearing, and approval of the Land Use Commission. Although implementation is conducted at the local level, final control is vested in the State through the Land Use Commission.

In addition to zoning, the Act provides for these districts to be the basis of property assessment and taxation. It also provides for the establishment of a "dedicated land reserve ... to enable the owner of any parcel of land within an agricultural district and/or a conservation district to dedicate his land for a specific ranching or other agricultural use and to have his land assessed at its value in such use."²²

Dedicated land could not be changed in use for a minimum period of ten years; however, dedication may be cancelled after five years with five years notice by either the state or the owner. Whyte feels that this provision is inadequate because "the farmer can sell out whenever he pleases; all he has to do is pay back the taxes forgiven plus a five percent surcharge."²³

Hawaii's Land Use Law is the most comprehensive approach to preserving farmland and controlling urban growth in North America. One report indicates that the legislation "has directed this growth, and

restrained scatteration and needless encroachment upon prime agricultural land." ²⁶ Another report produced in 1969 also indicated that the legislation had met with considerable success:

1. The Land Use Commission has been more strict than the counties in approving petitions for rezonings;
2. 'In-filling' of existing Urban Districts has been encouraged and scatteration has been largely brought to an end;
3. Speculative subdivision of new lands far beyond the need for new home sites has been greatly reduced;
4. Prime agricultural and conservation district lands have been protected from urbanization by the Land Use Commission denial of rezoning applications.²⁵

Hawaii's success can be attributed to the comprehensive nature of the method, the overall coordination at a State level, and the utilization of a variety of techniques to attain the stated objectives. It recognizes that the loss of agricultural land and urban growth are inseparable problems and that solutions must be aimed jointly at both spheres.

THE BRITISH COLUMBIA LAND COMMISSION ACT

In recent years, a great deal of concern has been expressed over the loss of agricultural land in British Columbia. This concern was precipitated by the realization that there is a very limited supply of arable land within the province, and that urban development has been encroaching upon this good agricultural land. On December 21, 1972, the provincial government placed a freeze on the subdivision of farmland, and on April 17, 1973, the government passed the Land Commission Act, a piece of legislation, radically different from the old order, designed to preserve agricultural land.

BACKGROUND TO THE ACT

The introduction of agricultural land preservation legislation in

British Columbia resulted from the realization that a great deal of prime agricultural land was being lost to urban development. The British Columbia Department of Agriculture had been concerned with this problem for several years. In 1971, the Department met with twenty-five United States State Commissioners of Agriculture in Victoria, at which time enquiries were made regarding the preservation of agricultural land in the United States. It was found that most legislation was based upon the taxation approach, primarily preferential assessment. However,

in response to an enquiry as to the degree of success achieved by state farm land preservation programs, none of the twenty-five Commissioners present could report substantial success. In almost every instance, the existing state programs were considered to have a temporary effect at best.²⁶

The majority of agricultural land preservation programs in North America are based upon preferential assessment. British Columbia has had preferential assessment for farm land for many years, and the problem still exists, because people who own land and are not bona fide farmers may also be able to obtain farm land classification and thereby receive the same benefit. Such policies provide a tax shelter for land being held for speculative purposes. The tax shelter also provides an incentive for people to move to rural areas on small acreages. Both factors contribute to urban sprawl and the loss of agricultural land. Rather than preserving agricultural land, taxation policies may accelerate the loss as discussed in Chapter IV. It would seem that a revision of farm land taxation policies is desperately needed to ensure that preferential assessment only benefits the bona fide farmer.

In 1970, a suggestion was put forward by the B.C. Federation of Agriculture to help preserve farmland as open space through the restructuring of taxation policies. They proposed new legislation termed the "Open

Space Preservation Act." A farm owner would have the option of dedicating his land as "open space" and would be zoned accordingly. Dedication would be permanent and would be transferred with the land title if sold. Land could be removed from dedication only if and when local government rezoned the land to a use or uses inconsistent with that stated in the application. In exchange for the dedication of land, the owner would receive a tax relief. Land would be assessed in accordance with the Assessment Equalization Act. In addition, the dedicated land, except for the dwelling and one-half acre on which it is situated, would be exempt from all rates imposed by the Taxation Act, Municipal Act, Public Schools Act, Regional Hospital Districts Act, Water Act, and the Municipal Finance Authority Act. This proposed legislation would have been very similar in nature to the California Land Conservation Act and would be subject to the same problems and limitations mentioned earlier. Consequently, no action was taken on this proposal.

Farmers were still concerned with the question of farm taxation. At the 39th Annual Convention of the B.C. Federation of Agriculture, a resolution was passed which stated that:

whereas farm land is unfairly taxed under the present tax structure, and whereas Regional Districts are becoming involved in the building of recreational facilities, fire protection, hospitals, etc.; therefore be it resolved by this 39th annual convention of the B.C. Federation of Agriculture that all such taxes, including school taxes, be removed from farm land, and that the home and home site principle be implemented. ²⁷

The B.C. Federation of Agriculture is one of the main organizations through which farmers can petition for changes in public policy. In the past, it has continually stressed the need for programs to preserve agriculture and to improve the economic viability of farming. However, it has rejected the idea of strict zoning policies as an infringement

on property rights. In the opinion of the B.C. Federation of Agriculture preservation should be accomplished by making it worthwhile for a farmer to continue farming.

In its election campaign of 1972, the New Democratic Party expressed concern over the depletion of natural resources, particularly the loss of agricultural land. Three months after taking office, the Minister of Agriculture, the Honourable D. Stupich, again voiced concern over the loss of agricultural land and indicated that the government was considering legislation to prohibit the subdivision of farm land. On December 11, 1972, the Minister of Municipal Affairs, the Hon. J.G. Lorimer, issued a letter to all municipalities and regional districts indicating that proposed zoning by-laws would be considered in light of the government's policy on the preservation of farm land. Reasons for the concern over the loss of agricultural land were cited as:

1. Losses of approximately 10,000 acres per year of high quality agricultural land in the best climates on the best soils;
2. There is less than 3% of the land area in B.C. west of the Rocky Mountains suitable for cultivated agriculture;
3. Approximately 1/100 of the land area of the province has a climate suitable for the production of tree fruits and grapes;
4. Agriculture makes a significant contribution to the provincial economy through basic returns to the farmers, multiplier effects of wholesale, retailing, servicing, etc., as well as providing economic diversity for the province;
5. International concerns:
 - world wheat shortages
 - beef shortages and price problems
 - California and Mexico populations will eventually need all their food producing land for their own ever-expanding populations
 - recent American embargos on some food products likely indication of future things to come
 - English and French speaking population of North America is approximately 6% of the world's population yet it consumes 30% of the world's resources. The new affluence of Western European, Eastern European and Asiatic peoples is creating increasing pressures on the world's food supplies. 60,000,000 more mouths to feed in the world every year.²⁸

After the announced intentions of the government, some areas experienced a large increase in the number of subdivision applications. With this in mind, Order-in-Council 4483/72 was approved on December 20, 1972, under the auspices of the Environment and Land Use Act, which provided that "the Lieutenant-Governor in Council ... may make such orders respecting the environment, or land use, as he may consider necessary or advisable."²⁹ The Order-in-Council prohibited the subdivision of farm land as defined in Section 2 of the Taxation Act, as well as all lands deemed suitable for cultivation by the Committee. This action was designed as a temporary measure to take effect until new legislation could be drafted.

As this definition of farm land was rather vague, Order-in-Council 157/73 was approved on January 18, 1973, which further defined the intent of the land freeze. Farm land was defined as any land of two acres or more that is:

- (a) situated in unorganized territory and classified as farm land as that expression is defined in Section 2 of the Taxation Act; or
- (b) situated in a municipality and classified as farm land under Section 332 of the Municipal Act; or
- (c) designated as Class 1, 2, 3, or 4 of the classification of soil capability for agriculture developed as part of the Canada Land Inventory under the Agricultural and Rural Development Act (ARDA) (Canada)³⁰

Permission would not be granted for subdivision applications, building permits, zoning by-laws, land use contracts, or deposit of a subdivision plan if farm land was involved, unless sufficient proof could be presented to show that these actions were substantially commenced prior to December 21, 1972, or that the proposal was for agricultural purposes only. Provision was made for a landowner to appeal to the Environment and Land Use Committee.

Needless to say, these actions met with violent opposition from the general public and from opposition parties. They charged that the farmland freeze was dictatorial, a confiscation of private land, and a denial of individual rights. Newspaper headlines included such titles as "Angry Orchardists Want Land Payments,"³¹ "300 Angry Farmers Rap Freeze,"³² "Opposition Members Take Aim at Gov't Freeze on Farmlands,"³³ and "Richter Charges in Legislature: Land Freeze 'Mis-Use' of Power."³⁴

During the furore, the government was preparing legislation to deal with the preservation of farm land. After reviewing various methods used in North America it concluded that only radically different legislation could be effective. The limitations of previous techniques were: they depended upon the voluntary participation of the landowners; included review and cancellation clauses; and depended upon preferential assessment, which did not provide enough incentive to stay in farming, and which, moreover, provided a tax shelter for land speculation. The main problem was that "many local jurisdictions have not been able to withstand pressure to change zoning and it is at this point that almost all known land preservation schemes have failed."³⁵ The new legislation was designed to overcome these obstacles and on February 22, 1973, the Honourable D. Stupich, Minister of Agriculture introduced Bill 42, The Land Commission Act, into the Provincial Legislature.

THE PROPOSED LAND COMMISSION ACT: BILL 42

The Introduction of Bill 42

The purpose of the proposed legislation (Bill 42) was to establish a Provincial Land Commission, which would set up and control reserves of agricultural land, green belt land, lard bank land, and park land. The Bill provided for the creation of a Provincial Land Commission of

not less than five members appointed by the Lieutenant-Governor in Council. The Commission would constitute a corporation and act as an agent of the Crown, and as such could "hold in its own name any land or other real or personal property, and likewise may dispose of, mortgage, hypothecate, pledge, and assign any such property." ³⁷ The Commission could also make such by-laws and regulations necessary to administer the Act.

The objectives of the proposed Commission were to: (1) preserve agricultural land; (2) encourage the establishment and maintenance of family farms; (3) preserve green belt land around urban areas; (4) encourage the establishment and maintenance of land in a green belt land reserve; (5) preserve land bank land having qualities for urban or industrial development; (6) encourage the establishment and maintenance of land in a land bank reserve; (7) preserve park land for recreational use; and (8) encourage the establishment and maintenance of land in a park land reserve. ³⁸

To fulfill these objectives the Commission could: "purchase or otherwise acquire land;" dispose of Commission land and Crown land within a designated reserve by sale, lease, or otherwise; accept gifts of land; "acquire and hold personal property and dispose of personal property so acquired;" and purchase and dispose of land if authorized by any other Act. ³⁹ Any land within the province could be designated and established (with or without actual purchase) as an agricultural land reserve, a green belt land reserve, a land bank land reserve, or a park land reserve.

Land within an agricultural reserve could not be used for any purpose other than farm use, and the designation of agricultural reserves

would be endorsed on the certificate of title of the land and transferable with the title. As such, no public agency could approve an application for subdivision or construction if it was to be located on agricultural land unless it was intended for farm purposes only, or if the land was less than two acres in area. Landowners could apply to the Land Commission for exemption from the agricultural reserve; however, the Commission's decision would be final and no provision was made for appeal. Appeals could be made only on a question of law or excess of jurisdiction.

The proposed Commission would also have the authority to enter into any agreements regarding the use of agricultural land with private owners or with any other public agency. It could use or dispose of any Commission land for the purposes of the Act. Finally,

subject to the approval of the Minister of Finance, or of the Minister of Municipal Affairs, as the case may be, [it may] establish a system of tax incentives to encourage the dedication of privately owned agricultural land to permanent farm use, and to increase the agricultural productivity thereof.⁴⁰

Land which would be designated as agricultural land, green belt land, land bank land, or park land would "be deemed not to be taken or injuriously affected by reason of the designation,"⁴¹ and as such there would be no right for compensation.

Reaction to Bill 42

The introduction of this proposed legislation prompted a new surge of opposition, again charging that the Bill was dictatorial and an infringement on an individual's property rights, and that it vested too much power in the hands of government. In contrast, others strongly supported the legislation, indicating that it was the most important and worthwhile program to have been put forward in British Columbia. The

attack on the Bill was led by the vocal and emotionally charged campaigns of the opposition parties and other interest groups, denouncing "the heavy hand of socialism." Some people, including a number of orchardists of the Okanagan, felt that a great deal of the private opposition following this emotional appeal was based upon a misinterpretation of the Bill. Some of the opposition, however, was based upon a careful analysis of the Act and included concrete proposals for improvement.

Opponents of the Bill charged that it gave too much power to a five-man Commission which would not be accountable to the legislature. They suggested that as the Commission would have complete control of all land in the province by being able to designate it as part of the four land reserves, private ownership would be destroyed. In addition, it was also argued that the government would have power to take over an individual's land or private property through expropriation. No compensation would be provided if a person's land was included in a reserve. Others criticized the Bill because there was no right of appeal, because the Commission's decision was final, and because of the lack of provision for public hearings on the designation of land into the reserves. With so much power being delegated to the Commission, planning and administration were being removed from the jurisdiction of local municipalities and regional districts.

All of these arguments, and others, were used by opposition parties in the legislative discussion during second reading of Bill 42 which commenced on March 9, 1973. Debate on the second reading took all or part of ten days to complete, including night sessions, and ended on March 29, 1973. One member of the opposition spoke for 12 hours before relinquishing the floor. Throughout the session, the Hon. D. Stupich,

Minister of Agriculture, spent a large amount of time explaining the bill to the public, refuting many allegations, and trying to clarify the operation of the Land Commission.

He stressed that only land of prime importance would be designated in a reserve. The Commission would not arbitrarily take possession of farm land but would only indicate the allowable uses, as in zoning by-laws. The Bill did not include the power of expropriation. An individual whose land was designated in a land reserve could appeal to the Commission; however, the Commission's decision would be final. The Bill would not prevent an individual from selling his land, but it did stipulate that the purchaser could use the land only for agricultural purposes. If a farmer wanted to sell his land and could not find a buyer, the Commission would be prepared to purchase the property at fair market value. Land purchased by the Commission could be leased or re-sold for farm use. The Commission would not be taking over the planning functions of local governments, rather the intention was for the Commission to work cooperatively with them in order to designate and administer the land reserves. Land would not be locked into the reserves forever, ⁴² exclusions would be made as conditions changed. The Minister also stressed that it seemed as if some sections of the bill could lead to confusion and that he would consider any suggestions for amendments.

Opposition to the bill reached a climax on March 15, 1973, when a demonstration organized by the B.C. Federation of Agriculture drew over 2,000 people to the Parliament Buildings in Victoria. The group included both opponents and supporters of the legislation. A large number of the demonstrators carried placards with slogans such as "Stop Bill 42," "Equity for Farmers," "Compensation not Confiscation," "Today

our Land, Tomorrow our Homes," and "Don't Stand Still, Kill the Bill" (Plates 11 and 12). At the demonstration, the President of the B.C. Federation of Agriculture, Mr. Charles Bernhardt, presented the government with a brief, which contained objections and alternative proposals.

The brief, one of the best of the many organized and presented during the debate on the bill, contained the following objections:

- Opposition*
1. Bill 42 gives the Commission the power to confiscate our property at whatever price it sees fit.
 2. Bill 42 devalues our assets and denies all right to compensation.
 3. Bill 42 denies our right to a public hearing with notification.
 4. Bill 42 denies all reasonable routes of appeal.
 5. Bill 42 creates a political Land Commission.
 6. Bill 42 puts government in competition with private farmers.
 7. Bill 42 extends the powers of the Commission to all lands.
 8. Bill 42 creates agricultural reserves automatically.
 9. Bill 42 allows the Commission to take, hold, and sell a person's personal belongings.
 10. Bill 42 does not allow the continuation of non-conforming uses.
 11. Bill 42 gives the Commission the right to tell a farmer how to farm.
 12. Bill 42 changes our titles by implication.
 13. Bill 42 allows the Commission to make decisions without publication.
 14. Bill 42 has the powers of expropriation without compensation.
 15. Bill 42 permits by-laws that inhibit normal farming practices.
 16. Bill 42 could permit property taxes to rise significantly.
 17. Bill 42 does not provide adequate capital.
 18. Bill 42 does not have clear workable definitions.⁴³

Accompanying each objection was a suggestion for improvement or an indication of a need for clarification.

Reaction to the proposed legislation by orchardists in the Okanagan varied considerably. Orchardists close to the more urbanized centres, such as Penticton and Summerland, voiced stronger objections than those further away. Orchardists in the more rural Oliver - Osoyoos area were generally in favour of the legislation. Most indicated that the majority of opposition was coming from the Kelowna region, where there was a greater possibility of selling to urban uses. Several felt that the



Plate 11. Slogans exhibited at a demonstration against Bill 42, Victoria, March 15, 1973.



Plate 12. Demonstrators in front of the parliament buildings, Victoria, March 15, 1973.

opposition was politically motivated. However, they were not without concern. If the proposed legislation, which placed tighter controls on use of agricultural land, was approved the government should guarantee that steps would be taken to make agriculture more viable, that is, to preserve farming as well as farm land.

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While debate on the second reading continued, the Department of Agriculture stressed that if Bill 42 was passed, it would accomplish the following:

1. Greatly curtail further loss of prime land throughout British Columbia.
2. Stabilize the agricultural land base so that land improvement programs designed to improve farm income are not frittered away to housing and other non-agricultural uses. These include irrigation systems, farm development loans, dyking and drainage systems, to mention a few.
3. Guarantee the people of British Columbia that we will not be helplessly dependent on others for our food supply. The cheapest source of food capable of production in British Columbia, will usually be derived from local sources.
4. Reinforce the efforts of those citizens serving the Municipal Councils, Regional Boards, Planning Committees who share our serious concern for the preservation of farm land in this province.
5. Improve opportunities for young people to enter farming. This will occur through being able to lease Crown owned farms and in some situations, depending on experience, able to carry through with purchase of a farm.
6. Protect the quality of the environment by creation of green belt reserves - some will be composed of farm lands.⁴⁵

Immediately following the completion of the second reading on March 28, 1973, the Minister of Agriculture introduced a number of amendments to Bill 42. The amended version, the land Commission Act, was passed in the Provincial Legislature on April 17, 1973.

THE ADOPTED LEGISLATION

The approval of Bill 42, as amended, resolved most of the criticisms levied against the initial legislation.

The basic objections to the old bill were that it gave the government, through the five-man commission it intends to set

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up, almost dictatorial powers. It denied the regional boards and municipalities a role in developing land-use policies on the doubtful promise that a central body would know better. It set rules for land acquisition that appeared totally in favour of the government at the expense of the individual landowner. It denied the basic right of appeal against commission decisions.⁴⁶

The amended legislation (Appendix F) provided for a greater role for local governments, who would have the initial responsibility to prepare agricultural reserve plans with the advice and assistance of the Commission. The Commission still held the responsibility to designate land as agricultural land with approval of the Lieutenant-Governor in Council, including privately owned land; however, land designated as a green belt land reserve, land bank land reserve, or park land would have to be purchased by the Commission before designation. The purchase or acquisition of land would not include the power of expropriation.

Regional districts were requested to prepare agricultural reserve plans within ninety days after the adoption of the Act, and to recommend the plans to the Commission. A recommendation could not be made until after a public hearing was held on the proposed plan. Provision was also made to exclude land from an agricultural reserve after designation and allowance was made to appeal a Land Commission decision to the Environment and Land Use Committee under limited conditions. The major emphasis in the revisions was that land use controls would be initially administered at the local level, and provision was made for a greater degree of public involvement in the decision-making process.

The Establishment of Agricultural Reserves

The Regional Districts were charged with the responsibility of filing a proposed agricultural reserve plan by October 1, 1973, but extensions to this deadline were granted. Agricultural reserves were to be designated on the basis of soil capability for agriculture maps

prepared by the B.C.L.I. Agricultural classes 1, 2, 3, and 4 were designated as having sufficient capability for inclusion in the reserve.

During the summer of 1973, the Land Commission and members of the B.C.L.I. staff visited all regional districts to explain the process of establishing the agricultural reserve. In addition, soil capability maps were provided showing suggested reserve boundaries. Later in the summer, additional maps were provided, tying reserve boundaries to legal boundaries. Regional districts were requested to use these maps as a basis for drawing up agricultural reserve plans.

The Commission also issued guidelines for the delineation of the reserves. Reserve plans were to be drawn on the basis of legal boundaries. Parcels containing two or more acres with agricultural capability classes 1 to 4 were to be included. However, parcels of less than five acres and faced by development on two sides could be excluded. The major criteria were that reserves were to be established on the basis of physical land capability only and no consideration was to be given to present use or economic factors. Regional districts could establish their own criteria if they fell within these guidelines. They were also allowed to exclude such lands as would be required for five years of projected growth. Provision was made in Order-in-Council 157/73 for regional districts to apply for such exemptions to the freeze to the Environment and Land Use Committee prior to the designation of the reserves.⁴⁷ On October 25, 1973, Order-in-Council 3539/73 rescinded this procedure and provided that these appeals would be made to the Land Commission.

The Land Commission Act specified that a Regional Board could not propose an agricultural reserve plan until it had held a public hearing. A public hearing provides the vehicle through which "all persons who deem their interest in property affected by the proposed by-law shall be

afforded an opportunity to be heard on matters contained in the by-law."

The Commission further stipulated that objections would be considered relevant only if they questioned the land's suitability for farm use or if they related to the Commission's and Regional Board's criteria for exemption. Questions of the economics of farming, type of crops that could be grown, or the desirability of non-farm use would not be eligible for consideration. Individuals could request either the exclusion or the inclusion of their land within the agricultural reserve. After the public hearing, a Regional Board could decide on each application and revise the proposed agricultural reserve plan accordingly.

After the Board adopts the proposed plan, the plan is forwarded to the Land Commission for review by means of a by-law of transmission. In reviewing the proposed plan, the Land Commission can suggest either additions or deletions to the reserves; the proposed plan and these suggested changes are then forwarded to the Lieutenant-Governor in Council for approval to designate. However, before approval is granted, the proposed plan undergoes additional review procedures.

At the next stage in the process, the Environment and Land Use Committee arranges for an interdepartmental review on behalf of the Lieutenant-Governor in Council. This review is coordinated by the Environment and Land Use Committee Secretariat. First, the proposed plan is examined by the Regional Inter-Sector Committee, composed of regional representatives of all departments represented on the Environment and Land Use Committee plus a representative from Housing. This Committee can provide comments and recommend improvements. Second, the plan, along with the regional comments, is examined by the Headquarters Committee comprised of senior governmental representatives in Victoria. Third, the proposed plan is returned to the Land Commission for their

comments and possible revisions to their initial proposals. Fourth, the plan is returned to the Secretariat, where the review is summarized, remaining conflicts outlined, and solutions proposed if necessary. Finally, the plan is returned to the Environment and Land Use Committee for a final review before it is brought before Cabinet for the approval to designate. This approval is given in the form of an Order-in-Council and the plans are returned to the Land Commission for designation.

After designation by the Land Commission, the freeze on the subdivision of farm land imposed by Orders-in-Council 4483/72 and 157/73 is lifted and the "reserve" sections of the Land Commission Act and its regulations take effect. These provisions allow a landowner to sell his land to anyone; however, the Act specifies that if such land is within an agricultural reserve, the purchaser can only use the land for agricultural purposes. A farmer can offer to sell his land to the Commission at any time. Land purchased by the Commission can be resold, leased, or combined with other parcels to create more economically viable units. A farmer can sell his land to the Commission and lease it back, thereby providing the capital necessary for improving his operation. The major emphasis of the Commission will be the accumulation of land into economic units.

Exclusion and Appeal Procedures

The Land Commission Act, as passed in the provincial legislature, included a provision for the exclusion of land from an agricultural reserve, and the right of appeal. A municipality, regional district, or the Land Commission can apply to the Lieutenant-Governor in Council for the exclusion of land pursuant to section 9 (1) of the Act and section 1 of the B.C. Regulation 60/74 (Appendices F and G). The

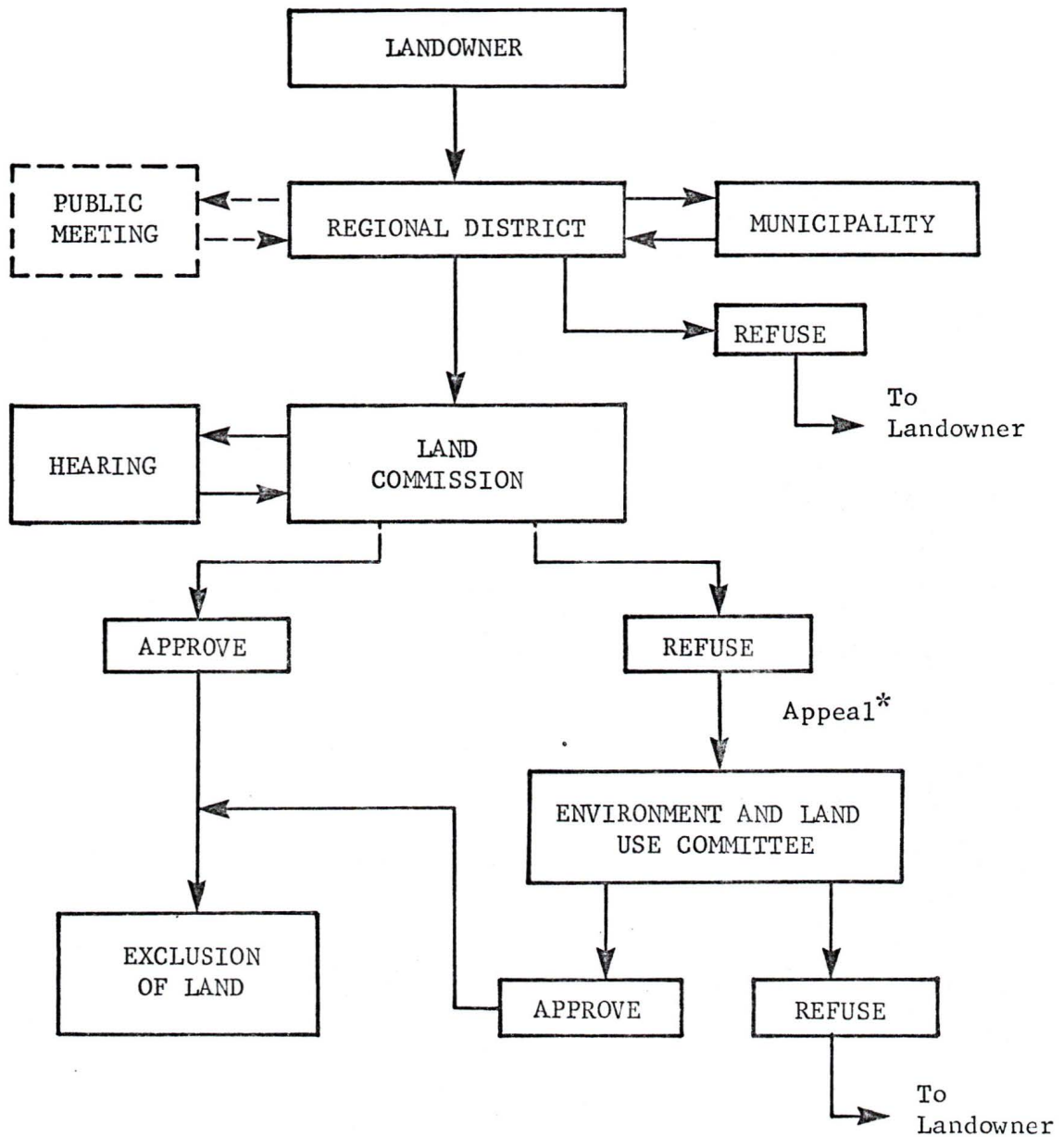
applicant must notify the two other parties concerned and provide them with copies of the application and supportive material. All parties can make representation to the Lieutenant-Governor in Council concerning the application, but his decision is final.

A private landowner can also apply for exclusion under section 9 (2) of the Act. The application is made to the appropriate regional district for processing, and it is circulated to a municipality if the land is within municipal boundaries. If the land in question was zoned as agricultural prior to December 21, 1972, the application can be refused at this stage and no appeal is allowed (Fig. 17); however, the application may proceed if an authorizing resolution is passed by the Regional Board or Municipal Council. Specific information for the application must be supplied by the landowner and the regional district or municipality (Appendix G). The regional district may, if desired, hold a public information meeting to ascertain public support for or opposition to the application. The Regional Board and Municipal Council may also consider the application at its regular meetings and make a recommendation on the application to the Land Commission. The application, along with comments, recommendations, or other information, must be sent to the Land Commission by a regional district within a specified time period.

In processing an application for exclusion, the Land Commission must hold a hearing and any individual or agency may make representation. After the hearing, the Commission can approve or refuse the application. If the application is refused, the landowner may appeal the decision to the Environment and Land Use Committee only if authorized by a regional district or municipality, and by two members of the Land Commission. The Environment and Land Use Committee must hold hearings on all appeals; if the appeal is approved, the land is excluded from the reserve by the Land

FIGURE 17

EXCLUSION PROCEDURES FOR INDIVIDUAL LANDOWNERS⁺



⁺ Under Section 9 (2) of the Act

* Appeal must be authorized by a regional district or municipality and two members of the Land Commission

Commission. If the appeal is refused, the applicant is required to pay all the costs of the hearing. Once land is excluded from the reserve plan, a landowner must follow the required procedures to obtain rezoning and building permits as outlined in Chapter IV.

No use other than agriculture is allowed in an agricultural reserve unless permitted by the Act, the Regulations, or by an order of the Land Commission. Non-conforming uses are allowed if the parcel is less than two acres on a separate title as of December 21, 1972, or the use was existing for at least six months prior to December 21, 1972.⁵¹ A landowner may apply for a land use exemption to allow a non-conforming use within a reserve and follows a procedure similar to that outlined above (Section 11 (4) of the Act). However, the Land Commission is not required to hold a hearing, and may impose any conditions on approval. The Commission's decision is final and appeals are allowed only on a question of law or excess of jurisdiction.

AGRICULTURAL RESERVES IN THE SOUTHERN OKANAGAN

The Orders-in-Council of December 21, 1972 and January 18, 1973, which placed a freeze on the subdivision of all farm land, provided the opportunity for municipalities or regional districts to apply to the Environment and Land Use Committee for the exemption of land required for immediate growth. The R.D.O.S. presented plans for each of the municipalities in the district showing areas necessary for five years growth and to allow for infilling of partly urbanized areas. The appeal was submitted to the Environment and Land Use Committee in early March, 1973, and was the first appeal to be submitted by any regional district. The exemptions were granted in early April, 1973, and were later used in developing the agricultural reserve plans.

After Bill 42 was passed in the legislature on April 17, 1973, the regional district proceeded to prepare the agricultural reserve plan. Once the plan was prepared, the regional district held a series of public information meetings at various locations in the valley during August, 1973. The purposes of these meetings was to inform the public of the procedures involved in defining the plan, to present the plan to the public, and to hear objections and comments on the proposed plan. 52

Attendance at these meetings varied from twenty-one at Osoyoos to eighty-five at Summerland. The larger turnout at Summerland could reflect the greater opposition to the Land Commission Act. Discussions with orchardists indicated that there was more objections raised in the Penticton and Summerland areas because of the greater demand for residences and the higher probability of land being purchased for urban uses.

The objections and comments raised at these meetings were considered by the regional district. No field checks were made of land capability, and it was suggested that individuals appeal to the Land Commission on this basis after the reserve was established. Several ranches in the area wanted grazing land (land capability classes five and six) included within the reserve boundaries. A revised plan was prepared based upon the objections and comments received at the information meetings.

A public hearing on the revised plan was held in Penticton on September 18, 1973. A total of thirty-eight submissions were made to the hearing. A total of fifty-four members of the public attended the hearing. 53 Following the hearing, the Regional Board met and made a decision on each submission. Of the thirty-eight submissions, eighteen were accepted and twenty were refused. Seven of the submissions requested inclusion in the reserve, of which five were accepted and two refused. Thirty-one requested exclusion, and thirteen were accepted and eighteen

refused. The plan, as revised, was adopted by the Board and submitted to the Land Commission on September 24, 1973. Public reaction to the proposed agricultural reserve plan was fairly mild, considering the violent objections raised after Bill 42 was first introduced. This mild response could suggest that either the amendments to the legislation were sufficient to overcome most objections, or that the media coverage of the "controversial" legislation was somewhat overemphasized.

After reviewing the R.D.O.S. plan, the Land Commission suggested several changes, such as the deletion of grazing land (capability classes five and six); however, critical grazing areas have been included in other regional districts and will probably be included in the R.D.O.S. The proposed plan was submitted to the Lieutenant-Governor in Council on November 2, 1973, and the review process was initiated. The proposed plan was reviewed by the Inter-Sector Committee in early November, 1973, by the Headquarters Committee in mid-November, and by the Land Commission again by November 30, 1973. The review summary was prepared by the Secretariat and the proposed plan was submitted to the Environment and Land Use Committee on December 14, 1973. On January 17, 1974, an Order-in-Council was passed approving designation. The Land Commission designated the R.D.O.S. agricultural reserve on February 13, 1974 (Fig. 18), and the land freeze was lifted on February 26, 1974.

The first application for exclusion in the Regional District of Okanagan-Similkameen was lodged on March 4, 1974. As of December 31, 1974, a total of ninety-one applications had been received by the regional district for land located in the study area (Table XXI). Thirty-seven, or 40.7 percent, were to exclude land from a reserve, while fifty-four, or 59.3 percent, were for exemptions of the land use restrictions within a reserve. Twelve exclusion applications were granted and twelve were

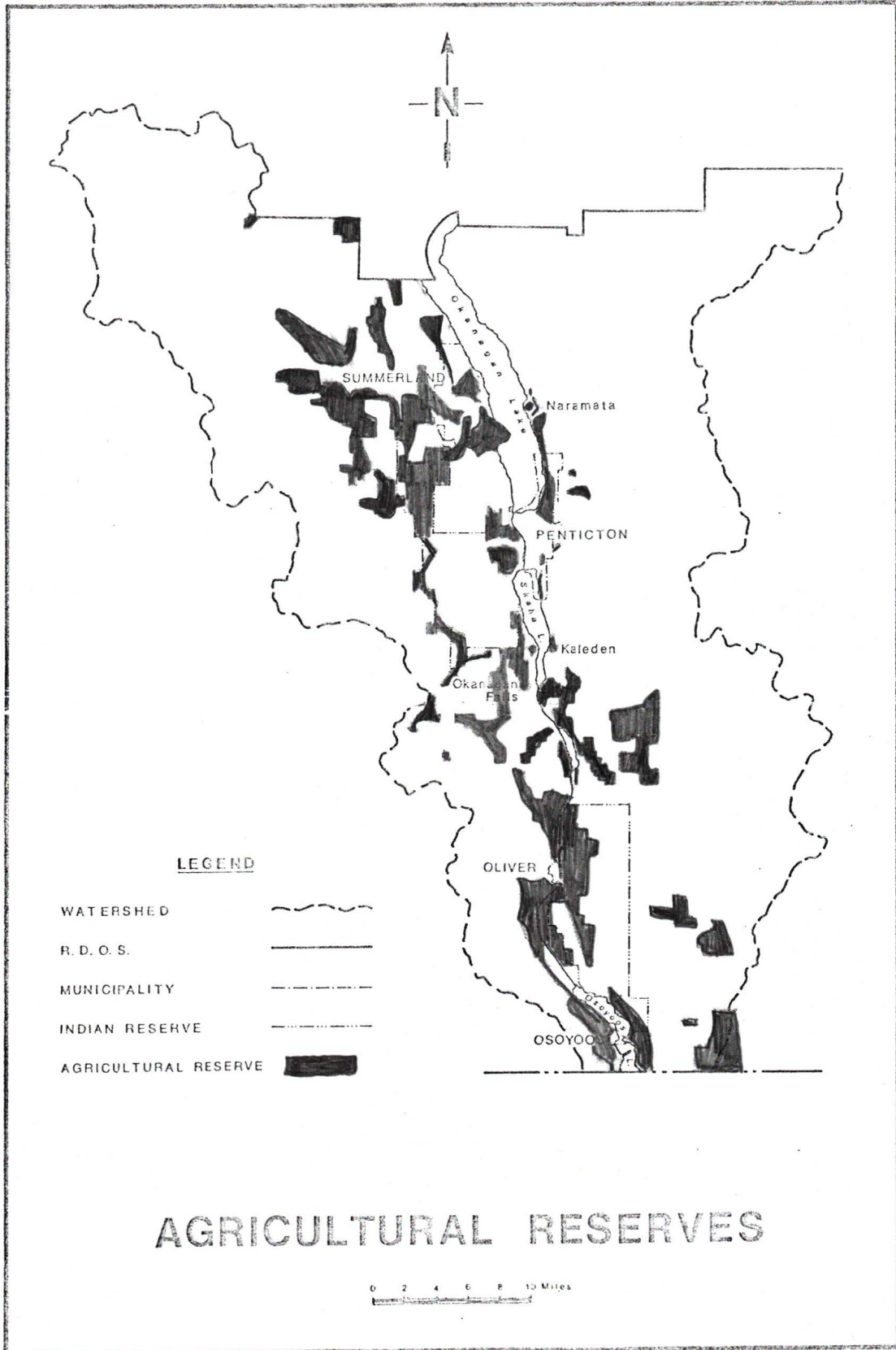


FIGURE 18

TABLE XXI

APPLICATIONS TO EXCLUDE LAND FROM THE R.D.O.S. AGRICULTURAL RESERVE PLAN

AREA	TOTAL RECEIVED	SECTION OF ACT		GRANTED		REFUSED		OTHER	PENDING
		9(2) ²	11(4) ²	9(2)	11(4)	9(2)	11(4)		
ELECTORAL AREA A	14	7	7	1	2	3	-	2	6
ELECTORAL AREA C	22	6	16	3	7	2	3	1	6
ELECTORAL AREA D	11	3	8	1	2	1	1	2	4
ELECTORAL AREA E	5	2	3	1	1	1	2	-	-
ELECTORAL AREA F	4	3	1	1	1	-	-	2	-
OLIVER	2	2	-	2	-	-	-	-	-
OSOYOOS	-	-	-	-	-	-	-	-	-
PENTICTON	9	4	5	2	3	1	1	-	2
SUMMERLAND	24	10	14	1	6	4	2	4	7
TOTAL	91	37	54	12	22	12 ³	9 ⁴	11	25
%	100	40.7	59.3	13.2	24.2	13.2	9.9	12.1	27.5

1. As of December 31, 1974

2. 9(2) - exclusion of land from reserve; 11(4) - exemption of land use

3. Under Section 9(5) of the Act, three of these appeals did not proceed to the Land Commission
The Councils of Penticton and Summerland each refused one and the Regional Board refused one (Area E).

4. Under Section 11(4a), five of these appeals did not proceed to the Land Commission

Two were refused by Summerland Council and three by the Regional Board (2 in Area E, 1 in Area D).

SOURCE: Regional District of Okanagan-Similkameen.

refused; one was refused by the Regional Board, one by Penticton, one by Summerland, and nine by the Land Commission. Twenty-two exemption applications were granted and nine refused; three were refused by the Regional Board, and two were refused by Summerland Council under Section 11 (4a) of the Act. No decision has been made on the remaining applications. It is interesting to note that the largest number of applications were received from Electoral Area "C" (Oliver area) and Summerland with a total of twenty-two and twenty-four respectively. The Summerland area has been one of the most rapidly urbanizing areas in the Valley (Chapter II). The Land Commission was somewhat permissive with regard to land use exemptions, as 84.6 percent of those submitted to the Commission were granted. It was only slightly more restrictive on exclusion applications, as 57.1 percent were granted. However, the system has been in operation for less than one year and obviously some problems and difficulties have yet to be worked out. The overall effect on the land conversion process will depend upon how permissive or restrictive the Land Commission will be in the future.

THE IMPACT OF THE ACT ON THE LAND CONVERSION PROCESS

The Land Commission Act represents a change in public policy designed to resolve a particular land use conflict, the loss of agricultural land to urban development. The ultimate success of this change in public policy, whether preserving orchard land in the Okanagan or agricultural land elsewhere in the province, will depend upon the long term implementation of the Act. However, an assessment of its probable success can be made by examining the way in which the Act could influence the decision-making process of rural to urban land conversion. First, the Act establishes a new set of procedures required to convert land

from an agricultural to an urban use. Second, it changes a site's institutional property characteristics by imposing stricter zoning controls. Both serve to influence the decision-making process of the various actors involved in land conversion. The objective of the Act is to alter the developing patterns of land use.

THE INFLUENCE ON ACTOR'S DECISIONS

The Land Commission Act influences the range of choice available to an individual decision maker. Prior to the Act, a predevelopment landowner had the options of continuing farming, subdividing, or selling to a developer. If his land is now located within an agricultural reserve, these options are limited. He is unable to subdivide the land, unless the land is excluded from the reserve. He still has the option of selling the land, but the purchaser can only use the land for agricultural purposes. Therefore, it is unlikely that he will be able to sell to a developer. In another sense, the orchardist's options have been increased; he now has the option of selling his land to the Commission if he is unable to find another buyer. For an orchardist who wishes to continue farming, the Act has reduced the degree of uncertainty associated with farming. He knows that agricultural reserve land will probably not be subdivided and therefore can anticipate fewer conflicts arising from adjacent land being developed for urban uses.

Orchardists with land within the agricultural reserve but located on the fringe of urbanized areas may benefit at some point in the future. Enough land has been excluded from the reserve to accommodate five years growth. When this land is used up, unless there is sufficient marginal land for development in the immediate vicinity, pressures will mount for land to be excluded from the reserve. Orchardists in this situation

have the possibility of reaping substantial profits as a result of a future public decision for exclusion. Land will have to be excluded unless other alternatives are made available. This situation could be the breeding ground for speculative activities. The majority of realtors interviewed felt that as the supply of developable land is reduced land prices could rise, resulting in greater potential for speculation.

On the other hand, orchards situated on marginal land and outside the agricultural reserve boundaries have their options increased. With the amount of potentially developable land reduced, there could be a greater demand for other land, especially orchard land that has the necessary attributes of water supply, roads, trees, services, etc. The probability of this type of land being purchased for development has been increased, and the marginal orchardist stands to reap a considerable profit.

The range of choice open to a developer will also be limited through the establishment of the agricultural reserves. The stricter regulations limit the locations where developers can purchase land for development. Developable land will have to be obtained from marginal areas or from that land granted exclusion from the reserve. Development costs will probably rise, either as a result of increased land prices or from the higher costs of servicing marginal land. Marginal land available for development is limited by topography, which may be too severe for construction, soil characteristics unsuitable for sewage disposal or a lack of water supply. It may prove to be extremely costly, in some cases even almost impossible, to obtain water outside irrigation district or municipal boundaries. The increased cost of servicing marginal land may force some of the smaller developers out of business.

In the past, developers have easily obtained the necessary

approvals for development, as zoning has proven to be somewhat ineffective and far too flexible. The developer, as the main initiator in the land conversion process, has always had the advantage. The Land Commission Act, by creating agricultural reserves with far stricter regulations than any previous agricultural zoning, imposes additional procedures for the conversion of land from agricultural to urban uses. It is still possible to exclude land from the agricultural reserve; however, the probability of success will be much lower. The developer has the choice of taking this route or concentrating on non-reserve land for development which may incur higher costs.

Ultimately, the decisions made at each of the stages mentioned above determine the choices available to the urban consumer. Demands for larger lots, view property, fruit trees, serviced land, etc., will still exist. The ability of the developer to meet these demands is limited by the Land Commission Act. As land available for development will be located on the immediate fringe of the expanding centre or on marginal land located higher up the valley sides, lot sizes may be reduced, fruit trees may not be available, and other amenities may be limited.

The Land Commission Act provides for a greater degree of control on land use at the provincial level, as all applications for exclusion are decided on by the Commission. Thus land use controls will be less susceptible to local pressures and reduce the opportunity for political favours. In addition, administration at the provincial level will provide the opportunity to ensure compatibility of land use policies throughout the province.

THE INFLUENCE ON LAND USE PATTERNS

The Act was designed to change the locational aspects of the pattern of development by preventing development from occurring on agricultural land. The controls and procedures imposed to accomplish this purpose are quite rigid and if strictly implemented, will reduce development in areas designated as agricultural reserves, and by implication, influence the form and pattern of urban growth. However, in the short term, the Act is unable to prevent additional development from taking place within agricultural reserves in the southern Okanagan. The historical development of agriculture was based upon a large number of small parcels, much too small to be considered viable orchard operations (Chapter II). In many cases farms are made up of a number of these small parcels, which still exist in legal terms. Even under the Act, each individual parcel may be sold separately and a dwelling constructed on each parcel. With additional subdivision being prevented, there is an increasing market for these lots.

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In the long term, scattered development on agricultural land will be reduced and more compact, continuous development should occur on urban peripheries. The reserves will create a shortage of land for development in some areas and it may be anticipated that more efficient use will be made of the land that is available. Areas excluded from the reserve due to the presence of existing scattered developments will probably experience a gradual infilling as available land becomes scarcer.

The legislation should facilitate a more orderly expansion of urban areas, but only if future land exclusions are planned and staged to occur immediately adjacent to the built up areas. Future exclusions are inevitable; there is nowhere else to go. Agricultural reserves,


topography and political boundaries fence in many urbanized areas. For example, the growth of Osoyoos is restricted by the agricultural reserve on all sides. Oliver is encircled by reserve boundaries to the north and south, an Indian reserve to the east, and steep topography to the west. Okanagan Falls is encircled by reserve boundaries as are Kaleden and Naramata. Considerable infilling can occur in all these areas. The main town centre of Summerland is bounded by the reserve and steep hills; however, a considerable amount of land has been excluded for future growth. At present development is quite scattered in southern Penticton and considerable infilling can take place. Further growth of Penticton is limited by Skaha Lake and the agricultural reserve to the south, Okanagan Lake and the reserve to the north, steep hills to the east, and an Indian reserve and the agricultural reserve to the west. The only major area for potential development on marginal land lies to the north and west of Penticton; however, the area is outside the municipal boundaries (Fig. 18). Thus, the present centres of population are all in close proximity to agricultural reserves. To take some of the pressures off these areas, an alternative might be to develop additional growth centres in areas where there is sufficient marginal land for development.

The demand for rural residential development is quite high in the Okanagan and the demand will now have to be met through the utilization of marginal land away from orchard areas. Marginal land suitable for urban development occurs at scattered locations throughout the valley. Without some policy to direct growth into only a few of these areas, rural development will continue to occur in a scattered fashion, only now on marginal land. Although one problem of urban growth will be reduced, that is, the loss of agricultural land, other problems of

urban growth, such as high service costs and poor services and facilities will still occur. In addition, forcing development onto the hillsides may create conflicts with wildlife, grazing, and forestry.

The success of the Land Commission Act in preserving agricultural land will depend upon the manner in which initial applications for exclusion are handled, which will serve to set precedents for the future. In any event, the developing patterns of land use will be considerably altered. It is hoped that these new patterns will not result in different, but more serious problems.

LIMITATIONS AND IMPLICATIONS OF THE ACT



The Land Commission Act, if strictly administered, and if alternative areas for development are provided, will probably considerably reduce the loss of agricultural land to urban uses in the southern Okanagan, and elsewhere in the province. Orchardists and new purchasers of agricultural land will be locked into farming. However, the Act preserves agricultural land but not farming and thus companion legislation is needed to improve the economic aspects of farming. This was a major plea of farmers opposing the initial introduction of the legislation. The B.C. Department of Agriculture introduced such legislation in the fall of 1973, to provide low interest loans, price stabilization and guaranteed minimum price programs. Interviews conducted with orchardists suggest that policies should also be implemented to raise prices as well as providing stability.

One of the major impacts of the Act will be a redistribution of property values and property taxation; however, the Act does not recognize these consequences. A question arose at the agricultural reserve public hearings held by the Capital Regional District in

Victoria regarding whether or not land within the reserves would be eligible for farm land taxation. Agricultural land and agricultural taxation could still provide a tax shelter for speculative activities, particularly in areas where future exclusion is inevitable. It would seem that the preferential assessment and taxation structure should be reviewed in light of the Land Commission Act, in order to ensure that the tax benefit will apply only to the bona fide farmers.

The exclusive agricultural reserves have created a situation in which potential high land values may be transferred to owners of marginal land and to owners of agricultural land with potential for future exclusion. As exclusion will be a result of a public decision, perhaps some provision should be made to recoup some of the profits resulting from this decision. Problems will thus arise when additional areas need to be excluded from the reserves. Some consideration should be given to the fact that:

It would be clearly unethical and illegal for a public authority to permit one farmer to sell his land for great profit to real estate developers and to deny this right to his neighbor on the assumption that their acres should be conserved as open space until the community approved conversion to other uses.⁵⁶

Responsibility lies heavily on the decision maker and the potential for abuse is great.

The Act creates agricultural reserves with much stronger regulations than any agricultural zoning implemented to date in British Columbia. In a negative framework, it states categorically where urban development will not be allowed. As such, it hopes to prevent the loss of agricultural land to urban use, and by implication influence urban growth patterns. The loss of agricultural land has been viewed as the primary land use problem in British Columbia and the solution was designed with this in mind. However, the loss of agricultural land is not the primary

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problem, but only a symptom of the problem. The problem is uncontrolled urban growth. "Urban growth would seem to be the single most powerful force that the Commission must deal with. If urban growth cannot be resisted then the Commission can only ensure that farmland is lost in an orderly way. ⁵⁷ The Act is a treatment of the symptom and not a cure of the cause. Its success will be limited by this fact as urban growth pressures continue to mount. Other problems associated with uncontrolled growth will still exist.

The major emphasis of planning to date has been to prepare regional plans, and to implement these plans through the imposition of negative restraints. However, the stronger the restriction, the greater the need for positive programs and policies to state where development will be accepted, and, which assumes some of the responsibility of ensuring that growth will in fact occur where desired. The Land Commission Act imposes strong negative restraints, but programs are also needed to guide development into conflict-free areas, suitable for development. The Act is limited in its scope. A more comprehensive approach to planning is required at the provincial level, perhaps similar to Hawaii's state-wide zoning, which would be administered at the local level and subject to provincial supervision. Such an approach could have the advantage of dealing with growth and all of its consequences, and could override the fragmentation of responsibility which at present occurs because of the large number of social and political jurisdictions.

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CONCLUSION

Just as there is no instant solution to complex urban problems, likewise there is no single solution.

Marion Clawson, 1971, p. 4.

The rural to urban land conversion process in the southern Okanagan is the result of numerous independent but interrelated decisions being made by orchardists, developers, and urban consumers. These decisions are influenced by the individual motives and preferences, by the locational and physical characteristics of the site, and by public policy, which establishes the framework in which private decisions are made.

This conversion process has resulted in a conflict between agriculture and urban development. Since 1960, the average size of an orchard has been increasing while the number of growers and the total orchard acreage has been declining. Concomitant with the decline has been a rapid increase in urban development. A computer mapping analysis revealed that all categories of urban development increased by a minimum of forty percent between 1963 and 1970. A great deal of this increase displaced previously existing orchards or was located in conjunction with existing orchards. Moreover, urban growth tended to occur in a very scattered form, which alienates additional orchard land. The analysis also revealed that over seventy percent of the urban development in 1970 was located on the best agricultural land and that this trend was accelerating between 1963 and 1970. Thus, the concern over the loss of agricultural land was justified.

The pattern of urban growth and the loss of agricultural land was the direct result of individual private decisions. In many cases, orchardists, who were faced with economic and social problems, were only too happy to sell their land for urban purposes. The certainty of an immediate profit was particularly attractive compared with the uncertainty of future economic conditions. From the developer's point of view, orchard land was the most suitable for development; the land was generally flat and easy to develop, it provided excellent views, the transportation and service infrastructure was developed, and an adequate supply of domestic water was usually available from irrigation districts and municipalities. The difficulty of obtaining contiguous large tracts of land contributed to the large number of small scattered subdivisions throughout the valley. Orchard land also provided the attributes that were being sought by many urban consumers. About fifty percent of the residential demand was for larger sized lots, which could be found mainly in rural areas. Therefore, the factors involved in individual land conversion decisions pointed to orchard land as the most attractive for new urban development.

Prior to the Land Commission Act, urban development occurred on orchard land despite public land use controls. Zoning was the only technique available for directly influencing land use, but the by-laws were not designed to preserve orchard land because of the difficulty of obtaining local approval. In fact, they encouraged conversion by placing more restrictive zoning on marginal land. Other public policies, such as subdivision, taxation, sewage disposal, and water supply regulations, were not designed to control land use, but indirectly influenced land use by influencing the locational decisions of the

private sector. In many cases, they directed or encouraged urban development to locate on orchard land. Direct public influence on land use was unable to prevent urban development from locating on orchard land, while other policies actually stimulated the conversion of orchard land to urban uses.

The inadequacy of existing public policies to prevent the loss of agricultural land prompted the provincial government to adopt the Land Commission Act on April 17, 1973, which was designed specifically to preserve agricultural land. The Land Commission Act significantly altered the land conversion process in the southern Okanagan. It established specific policies for agricultural land preservation, introduced additional procedures to be followed before agricultural land could be used for urban purposes, and provided provincial control over land conversion. As such, this new public policy will alter the amount of orchard land that will be used for urban purposes, as well as the form and pattern of future urban growth. First, the legislation can be expected to reduce the scatteration of urban development in orchard areas, and, therefore, reduce the alienation of orchard land through urban sprawl. Second, it will reduce the amount of good orchard land taken out of production, at least in the short term. Third, by implication, the legislation will result in a more compact and dense form of urban growth when growth does occur on agricultural land.

However, the long term success of the Land Commission Act is questionable. The reasons why orchard land was converted to urban uses in the past will continue to exist in the future. Orchard land will still be the most attractive for urban development because of

the difficulties and costs involved in developing marginal land. As population and the demand for residential property increases, it can be expected that pressures will mount to have land excluded from the agricultural reserve, unless alternative areas are available for development. The long term success will depend upon how individual applications for exclusion are processed.

To ensure that the Land Commission Act will actually fulfill its objectives, several suggestions can be made. First, a set of policy guidelines should be developed in order to evaluate future applications for exclusion. Second, detailed records must be kept of all applications, appeals, and exclusions from the agricultural reserves. Third, an independent review of the Land Commission and its operation should be made every five years. Fourth, provincial taxation legislation should be changed so that agricultural reserves become the basis for preferential taxation and assessment. Finally, if the agricultural reserve does become the basis for preferential taxation and assessment, legislation should be introduced to allow retroactive tax differentials to be collected if and when land is excluded from an agricultural reserve. This action will provide a disincentive for future exclusion applications and allow the public to share in the profits which accrue as a result of a public decision.

Perhaps the major limitation of the Land Commission Act is that it views the loss of agricultural land as the basic problem which must be solved. However, the loss of agricultural land is only one consequence of uncontrolled urban growth. For the Land Commission to be effective in preserving agricultural land in the long term, additional policies and programs must be developed, or existing ones changed, in

order to provide a more unified and coordinated approach to urban growth. Only in this way can pressures for exclusion be minimized. To supplement the Land Commission Act, the provincial government should develop an overall provincial land use policy and an urban growth policy. Agricultural land preservation should form one objective within such policies. These policies would provide positive direction for municipal and regional planning within provincial guidelines. Perhaps the role of the Provincial Land Commission could be expanded to administer these policies.

In the past, zoning has been the only technique available to directly influence land use in the southern Okanagan. This technique is limited in scope, and "we must find a means of implementing land-use planning based on policies rather than on zoning."¹ However,

the effectiveness of policies as a means for shaping urban growth is dependent on whether the relevant policies can be brought together in one 'modus operandi' - a framework for steering public policy - and whether such a framework becomes a recognized basis of co-ordinated action by all levels of government in policy decisions relating to urban development.²

Lack of coordination has been recognized as a problem in British Columbia, especially in the Fraser Valley, where it was suggested that "a major task in the planning for the use of the land and resources of the valley will be the guiding of government at all levels in a co-ordinated and combined plan of action."³ This study has shown that a variety of public policies indirectly influence land use in the southern Okanagan. If these policies could be brought together to directly influence land use as part of an overall scheme or regional plan, more effective public control could be attained over urban growth, and therefore, the preservation of orchard land. Such coordination cannot be left to local decisions, but will require provincial direction and

legislation.

In addition to the coordination of regulatory techniques, more positive policies and programs should also be instituted to provide an incentive for development in desirable locations.

Merely to prohibit development in one location by refusing planning permission will not solve the problem of where the activity in question will locate. It is also necessary to give positive indications as to where development will be permitted and encouraged.⁴

For example, the development of marginal land for urban uses is inhibited by the problems encountered in obtaining an adequate water supply. A program to provide a domestic water supply to marginal land could make this type of land attractive for development. By providing alternative areas for urban development through positive programs, potential pressure can be taken off good orchard land and reduce the need to exclude land from the agricultural reserve.

Whether positive or negative techniques are used to control urban growth and resolve land use conflicts, problems may still exist due to geographical fragmentation. Policies and techniques should be administered and implemented on a comparative basis for all jurisdictions. At present, the regional district is the only agency authorized to consider land use on a regional scale and to provide land use planning. More effective control over land use may be attained by increasing the powers and functions of regional districts. Another approach could be "a complete readjustment of municipal boundaries, perhaps using the 'city region' as a basic municipal unit."⁵ In either case, the control of urban growth and the resolution of land use conflicts, such as the loss of agricultural land to urban development, requires more comprehensive urban-rural planning.

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APPENDIX A

INTERVIEWS

GOVERNMENT OFFICIALS

NAME	AFFILIATION	DATE OF INTERVIEW
Mr. E. Antony	B.C. Water Resources Service, Kelowna	May 17, 1973
Mr. Cornock	City Assessor Penticton	May 18, 1973
N/A	Environment and Land Use Committee, Victoria	November 21, 1973
Mr. Metivier	Summerland Town Office	May 15, 1973
Mr. McLeod	Department of Highways Penticton	May 29, 1973
Mr. J. Price	District Horticulturalist Oliver - Osoyoos B.C. Department of Agriculture	March 27, 1973
Mr. G. Runka	Manager, Provincial Land Commission	November 19, 1973
Mr. Shannon	Medical Health Officer South Okanagan Health Unit Penticton	March 29, 1973
Mr. Smith	Clerk-Treasurer, Osoyoos	May 9, 1973
Mr. Stevenson	Provincial Assessor Penticton	September 12, 1972 February 21, 1973
Mr. T. Swailes	District Horticulturalist Kaleden B.C. Department of Agriculture	March 27, 1973
Mr. Tassie	Department of Municipal Affairs Victoria	April 12, 1973
Mr. H. Thomson	Director, Regional District of Okanagan-Similkameen Penticton	August, 1972 November 20, 21, 1973 May 10, 1973 September 6, 1974
Mr. M. Traumpour	District Horticulturalist Penticton, Naramata, B.C. Department of Agriculture	March 27, 1973 September 12, 1972
Mr. A. Watt	District Horticulturalist Summerland B.C. Department of Agriculture	March 29, 1973

Mr. Wilkinson	Extension Service B.C. Department of Agriculture Victoria	November 7, 1973
N/A	Town Clerk, Oliver	May 10, 1973

ELECTED PUBLIC OFFICIALS

Mr. P. Farmer	Chairman of Regional District Board, Director for electoral area "D", orchardists, Okanagan Falls Real Estate	March 27, 1973
Mr. A. Pederson	Regional District Director electoral area "E", orchardist (Naramata), Director on the B.C. Fruit Board	March 29, 1973
Mr. H. Stall	Alderman for Summerland, Representative on Regional District Board, Director on the B.C. Fruit Board, Director on the Board of Health	May 15, 1973
Mr. J. Tait	Regional District Director electoral area "C"	August, 1972 May 19, 1973

ORCHARDISTS

Mr. C. Bernhardt	Orchardist (Summerland) President of the B.C.F.G.A., President of the B.C. Federation of Agriculture	March 28, 1973
Mr. A. Biech	Orchardist (Oliver), Chairman of Oliver Local of the B.C.F.G.A.	March 28, 1973
Mr. A. Garrish	Orchardist (Oliver) Past President of the B.C.F.G.A. (15 years), Member of the B.C. Land Commission	March 28, 1973
Mr. B. Irvine	Chairman of the Naramata Local of the B.C.F.G.A.	March 29, 1973
Mr. R. Karrer	Orchardist (Penticton)	May 17, 1973
Mr. F. King	Orchardist (Kaleden), crop insurance representative	March 30, 1973
Mr. G. Kunz	Orchardist (Osoyoos), ex- chairman of the Osoyoos Local of the B.C.F.G.A.	May 10, 1973

Mr. D. Mephan	Orchardist (Osoyoos) Vice President of the B.C.F.G.A.	March 30, 1973
Mr. D. Peaker	Orchardist (Penticton)	March 30, 1973
Mr. A. Pederson	Orchardist (Naramata), Regional District Director, Director on the B.C. Fruit Board	May 28, 1973
Mr. W. Smith	Retired orchardist, long-time resident of the Oliver area, writes an agricultural column in the Oliver Chronicle	March 28, 1973
Mr. R. Towgood	Orchardist (Summerland) Chairman of the Summerland Local of the B.C.F.G.A.	May 12, 1973
Mr. and Mrs. Workman	Orchardists (Naramata) owns the largest orchard in the southern part of the valley (180 acres)	March 29, 1973

REALTORS

Bowsfield, F.O., Ltd.	Penticton	May 15, 1973
Collinson Mortgage & Investments Ltd.	Penticton	May 15, 1973
Fraser Real Estate Agents Ltd.	Osoyoos	May 10, 1973
Gregson Real Estate	Penticton	May 11, 1973
Lawrence, J.W., Insurance	Penticton	May 15, 1973
Oliver Agencies Ltd.	Oliver	May 17, 1973
Pruden Realty Ltd.	Summerland	May 11, 1973
Summerland Realty	Summerland	May 11, 1973

MISCELLANEOUS

Mr. D. Dickson	Oliver-Osoyoos Cooperative	May 11, 1973
Mr. G. Lane	Farm Credit Corporation Summerland	May 16, 1973
Mr. Lidster	Summerland Cooperative	May 16, 1973
N/A	B.C. Tree Fruits Ltd.	May 17, 1973

N/A

B.C. Fruit Board

May 17, 1973

N/A - NOT AVAILABLE

APPENDIX B

INTERVIEW FORMAT FOR ORCHARDISTS

Interviews were conducted with representatives of the orchard industry, chosen because they could represent the opinions of orchardists in general. An attempt was made to contact people who are or have been on the local executive of the B.C.F.G.A. The purpose of the interview was to assess the type and nature of the factors which are involved in a farmer's decision to hold or sell his land and the alternatives which are open to him in each situation. An attempt was made to assess the orchardists reaction to the proposed Land Commission Act.

The interview utilized the following format and topics which was derived from an analysis of the literature and through preliminary discussions held with a few orchardists. The interview format was designed to provide points of discussion rather than a specific question and answer session.

1. Physical factors
 - A. Land capability
 - B. Climatic conditions

2. Social factors
 - A. Age
 - B. Personal
 - C. Health
 - D. Experience and knowledge of fruit industry
 - E. Vandalism
 - F. Residential complaints
 - G. Local by-laws

3. Economic factors
 - A. Costs of production
 - equipment and machinery
 - labour
 - fertilizer and sprays
 - water
 - taxes
 - B. Returns on production
 - productivity
 - climate
 - infestation
 - price of fruit
 - packing, processing, storing
 - marketing system
 - competition

Could any of these items be considered more important than others?

4. Miscellaneous
 - If orcharding is an uneconomic situation, why do people continue farming or purchase farms?
 - What problems are encountered when trying to improve an orchard operation?
 - expansion
 - rehabilitation
 - high density planting

- What constitutes a viable orchard operation?

5. Choices

- continue farming
- expand or improve operation
- sell or subdivide part of farm
- sell as a farm unit
- sell to a developer

6. Bill 42 - Land Commission Act

- what impact will the act have on the orchard industry?
- what impact will the act have on farmers' land use decisions?

APPENDIX C

INTERVIEW FORMAT FOR REAL ESTATE AGENTS

Interviews were conducted with representatives of real estate companies for the purpose of obtaining information on the factors involved in a farmer's decision to sell, and urban consumer's selection of a residence, the role of developers and speculators in the land conversion process, and their assessment of the impact that the Land Commission Act will have on the process. Interviews were held with eight out of the twenty-six real estate companies operating in the southern Okanagan. The interviews were of an open ended discussion session and utilized the following format to guide the discussions.

Supply of land

1. What factors are involved in a farmer's decision to sell his land?
 - land capability or climate
 - social
 - economic
2. What choices does a farmer have if he decides to sell?
 - sell to other farmers
 - subdivide and sell individual lots
 - sell part of farm
 - sell to developers
 - other
3. What factors limit his choice?

Demand for land

4. What factors are involved in a person's decision to purchase property for urban purposes?
 - house size and design
 - lot size
 - accessibility
 - proximity to facilities
 - view
 - fruit trees
 - privacy, freedom
 - retirement
 - services - water, power, sewer
 - purchase price
 - ongoing costs - taxes, water, power, services
5. What proportion of people are looking for either urban or rural locations? Why?
6. What factors limit their choice of a residential property?

Land speculation

7. How important is land speculation in the southern Okanagan?
8. What types of people speculate in land? Why?
9. What factors limit the extent of land speculation?

Land development

10. What land and locations are the most important for residential development?
11. What problems are encountered in developing land for residential purposes?
 - supply of land

- rezoning
- health regulations
- supply of services
- accessibility
- demands for land

Bill 42

12. What impact will the Land Commission Act have upon the...
 - land development process?
 - land and housing market?
 - real estate business?
13. Will the Act be effective in preserving agricultural land? Why? Why not?
14. With the Act in effect, what else will governments have to do to ensure its effectiveness?

APPENDIX D

REAL ESTATE BROCHURE FOR A RURAL RESIDENTIAL SUBDIVISION

"In the Heart of the Peach Country"

Skaha Estates is situated on one of the Okanagan's most famed and most photographed soft fruit orchards. Many years of irrigation and fertilization have produced a rich loam soil for superior landscaping. Residents may retain producing trees on their property if they so desire.

In addition to fruit trees, there are magnificent Ponderosa Pines which are an aesthetic delight to the lover of naturally "framed" viewpoints.

Lots 90 and 91 are the community park for residents and guests. This borders on a safe, sloping beach perfectly suited for summer fun.

This desirable location is one of the picture spots of western Canada with the peace and quiet of country living, but within reach of the main communications.

A Contractor is available to custom build to your specific requirements. Suitable plans are available for your persual at any time.

An interesting note is that Canada Geese and Swans often spend the winter in the cove bordering on the community beach lots. Bighorn Sheep are to be seen in the area.

The Apex Ski Resort, an hour away, provides excellent skiing from December to May. This modern winter resort has a nice lodge, and the longest Poma Lift in Canada.

Skaha Lake abounds in fishing for Kokanee and Kamloops trout.

The bench-like contours of this location are ideally suited for a "View Lot" housing development. Almost all lots enjoy an uninterrupted view of the lake, surrounding hills and orchards.

Located on the sunny east bank, late evening sunsets provide a daily natural spectacle.

All lots are provided with water and power. Convenient walk-ways permit easy access from the upper lots to the park bench. Nowhere else in Canada can apricots, peaches and many varieties of sub-tropical plant life be so successfully grown.

Seven miles of good paved road links Skaha Estates with Penticton where there is Greyhound bus service with all connections, and daily airline service to Vancouver and Calgary.

Okanagan Falls lies two and one half miles to the South with connections to Highway 97 and Highway 3.

Source: Collinson Mortgage and Investments Ltd., Realtors, 462 Main Street, Penticton, B.C.

APPENDIX E

ZONING DISTRICTS, MINIMUM LOT SIZE AND PERMISSIBLE USES FOR ELECTORAL AREA "D"

DISTRICT	NAME	MIN. LOT SIZE		PERMISSIBLE USES
		COMM. WATER NO SEWER	NO COMM. WATER OR SEWER	
F-G	Forestry/Grazing		10 acres	agricultural, prossing and packing agricultural produce, forestry, single-family homes, factory-built homes, mobile homes, home occupation, open land recreational and institutional, public services and utility
A-R	Agricultural/residential	9,000 sq ft	18,000 sq ft	agriculture, single-family homes, mobile homes, pickers' cabins, home occupations, schools, churches, community halls, open land recreational and institutional, public service and utility
R-1	Low density residential	9,000 sq ft	18,000 sq ft	Agricultural (except animals) and processing activities) single-family homes, home occupations, schools, open land recreational and institutional, public service and utility
R-1A	Low density residential	9,000 sq ft	18,000 sq ft	same as above
R-2	Multi-family	9,000 sq ft	18,000 sq ft	same as R-1 plus two family dwellings, row houses, apartments
R-1M	Mobile home park		3 acres min. 6 units	Agriculture (except animals and processing activities) mobile homes convenience commercial establishments, public service and utility

R-1R	Mobile home and factory built units	9,000 sq ft	18,000 sq ft	Agriculture (except animals and processing activities), single family dwellings, mobile homes, factory built homes, home occupations
RC-1	Resort cottage	9,000 sq ft	1 acre	Agriculture, travel trailers, mobile homes, single family dwellings, schools, churches, community halls, open land recreational and institutional, public service and utility
C-1	Local commercial	9,000 sq ft	18,000 sq ft	Local retail and service establishments, accessory dwellings, home occupations
C-2	Highway commercial	9,000 sq ft	18,000 sq ft varies with type of use	Motels, campsites, service stations, restaurants, fruit stands, food stores and gift shops, accessory dwelling units, home occupations, agriculture (except animals and processing activities)
C-3	Central Business	none	18,000 sq ft	Hotels, motels, service stations, resaurants, commercial amusement and recreation, accessory dwelling units, public and private institutions, retail trade, business offices, personal and business services, public parking lots
CT-1	Tourist commercial	9,000 sq ft	18,000 sq ft varies with type of use	Agriculture (except animals and processing activities) campsites, gift shops, concession stands, fruit stands, restaurants (including drive-ins), museums, public entertainment, amusement and recreational, accessory dwelling units, home occupations

CT-2	Tourist commercial	9,000 sq ft varies with type of use	18,000 sq ft	Motels, resorts, restaurants, campsites, food and gift stores, accessory dwelling units, home occupations, agriculture (except animals and processing activities)
RR-1	Rural recreational	9,000 sq ft or 5 acres	18,000 sq ft	Agriculture, forestry, grazing, open land recreational and institutional, sporting, recreational, amusement and entertainment facilities, museums, gift shop concession stands, restaurants (including drive-ins) single family dwellings, mobile homes, public service and utility
M-2	General industrial	-----	-----	Light industry
M-3	Heavy industrial	-----	-----	Light industry, agriculture, manufacturing, wholesaling, warehousing, public services, gravel processing, sanitary landfill, auto wrecking, stockyards
P-1	Public parks	½ acre		Parks, playgrounds, cemeteries, carnivals, circuses, fairs, bands, community buildings, stadiums, restaurants, skating rinks, swimming pools, tennis courts, zoological gardens, aquaria, public service and utility

- N.B. 1. Regulations governing minimum lot sizes are also implemented by the Department of Health and the irrigation districts
2. The zoning by-law also spells out specific regulations for each district for such things as site width, buildings per lot, set-back, lot coverage, height, floor area, etc.

3. Minimum lot sizes for F-G vary between electoral areas as Follows:
area A - 3 acres; area C - 3 acres; area E - 10 acres; and area F - 10 acres.

Source: Regional District of Okanagan - Similkameen, Electoral area "D", Zoning by-law no. 100, April, 1970.

APPENDIX F

Certified correct as passed Third Reading on the 17th day of
April, 1973. I.M. HORNE, *Law Clerk.*

HON. MINISTER OF AGRICULTURE.

BILL

No. 42]

[1973

Land Commission Act

HER MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of British Columbia, enacts as follows:

Interpre-
tation.

1. In this Act, unless the context otherwise requires,
- "agricultural land" means land designated under section 8;
 - "commission" means the commission established under section 2;
 - "commission land" means land acquired by the commission for the purposes of this Act;
 - "farm use" means an occupation or use of land for bona fide farm purposes, including, without limiting the generality of the foregoing, husbandry of the land and the plants, and animals thereon, and any other similar activity designated as farm use by the Lieutenant-Governor in Council;
 - "green belt land" means land referred to in section 7;
 - "land" includes any estate or interest in land;
 - "land bank land" means land referred to in section 7;
 - "land reserve plan" means a plan prepared pursuant to this Act in the manner prescribed by the regulations, which sets out clearly the areas within a municipality or regional district that, subject to the approval of the Lieutenant-Governor in Council, may be designated by the commission as an agricultural land reserve;
 - "minister" means that member of the Executive Council charged by Order of the Lieutenant-Governor in Council with the administration of this Act;
 - "park land" means land referred to in section 7;
 - "regulation" means a regulation or order of the Lieutenant-Governor in Council made under this Act;
 - "reserve" means a reserve of land established under section 8 of this Act.

Commission
established.

2. (1) There is hereby established a commission to be known as the Provincial Land Commission (hereafter referred to as the "commission") consisting of not less than five members appointed by the Lieutenant-Governor in Council, to hold office during pleasure, and upon their appointment the members constitute a corporation and shall be the directors thereof.

(2) Each member shall be reimbursed for any reasonable travelling or out-of-pocket expenses necessarily incurred by him in discharging his duties, and in addition may be paid such remuneration for his services as a member of the commission as the Lieutenant-Governor in Council may determine.

(3) Except as provided in sections 8 and 9, at any meeting of the commission, a majority of the members constitutes a quorum.

Chairman.

3. The Lieutenant-Governor in Council shall designate one of the members as chairman and one other member as vice-chairman.

Agent of
Crown.

4. (1) The commission is for all purposes an agent of the Crown.

(2) The commission may, on behalf of the Crown, carry out its powers and duties under this Act in its own name without specific reference to Her Majesty and may hold in its own name any land or other real or personal property, and likewise may dispose of, mortgage, hypothecate, pledge, and assign any such property.

Staff.

5. (1) The commission may, pursuant to the *Civil Service Act*, appoint such officers and employees as it considers necessary for the purpose of this Act, and may determine their duties.

(2) The Lieutenant-Governor in Council may appoint a general manager of the commission, to be appointed during pleasure, and may fix his remuneration and may declare that the *Civil Service Act* applies to him.

(3) The Lieutenant-Governor in Council may declare that the *Civil Service Superannuation Act* applies to the members of the commission and to the general manager.

(4) The commission may, with the approval of the minister, engage and retain such experts, consultants, or specialists as it considers advisable and fix their remuneration.

By-laws,
etc.

6. The commission may make such by-laws and pass such resolutions, not contrary to law or this Act, as it considers necessary or advisable for the conduct of the affairs of the commission and, without limiting the generality of the foregoing, may make by-laws and pass resolutions with respect to the time and place of calling and holding meetings, the procedure to be followed at the meetings, and generally with respect to the conduct, in all respects, of the affairs of the commission; and may repeal, amend, or re-enact them.

Objects
and
powers.

7. (1) It is the object of the commission to

- (a) preserve agricultural land for farm use;
- (b) encourage the establishment and maintenance of family farms, and land in an agricultural land reserve, for a use compatible with the preservation of family farms and farm use of the land;
- (c) preserve green belt land in and around urban areas;
- (d) encourage the establishment and maintenance of land in a green belt land reserve for a use compatible with the preservation of a green belt;
- (e) preserve land bank land having desirable qualities for urban or industrial development and restrict subdivision or use of the land for other purposes;
- (f) encourage the establishment and maintenance of land in a land bank land reserve for a use compatible with an ultimate use for industrial and urban development;
- (g) preserve park land for recreational use;
- (h) encourage the establishment and maintenance of land in a park land reserve for a use compatible with an ultimate use for recreation; and

- (h1) advise and assist municipalities and regional districts in the preparation and production of the land reserve plans required for the purpose of this Act;

and, for these objects, it has the power and capacity, by itself, or in co-operation with the Government of Canada, or any of its agencies or corporations, or with any department of Government, or with a municipality or regional district to

- (i) purchase or acquire land, except by expropriation, on such terms and conditions as may be negotiated, and hold such land for the purposes of this Act;
 - (j) dispose of, by sale, lease, or otherwise, commission land and Crown land that is in an agricultural land reserve, a green belt land reserve, a land bank land reserve, or a park land reserve, subject to such terms and conditions as the commission may determine;
 - (k) accept gifts of land subject to such terms and conditions as the commission may determine;
 - (l) acquire and hold personal property and dispose of personal property so acquired by sale, lease, or otherwise; and
 - (m) if authorized by any other Act, purchase or otherwise acquire, hold, administer, and dispose of land, including Crown land, for the purposes of that other Act.
- (2) For the purposes of this section, the commission may
- (a) purchase or acquire land, except by expropriation, including Crown land, the present condition or future potential of which merits preservation by reason of its aesthetic quality or its location in or around urban areas, as green belt land;
 - (b) purchase or acquire land, except by expropriation, including Crown land, having desirable qualities for urban or industrial development or redevelopment, as land bank land; and
 - (c) purchase or acquire land, except by expropriation, including Crown land, having desirable qualities for, or future potential for, recreational use, as park land;

and, upon being so purchased or acquired, the green belt land, land bank land, or park land is established as

- (d) a green belt land reserve; or
- (e) a land bank land reserve; or
- (f) a park land reserve,

as the case may be, and shall be subject to this Act and the regulations.

Agricultural
land reserves.

8. (1) For the purposes of section 7, the commission may, subject to this section, with the prior approval of the Lieutenant-Governor in Council, designate land, including Crown land, that is suitable for farm use, as agricultural land, and, upon being so designated, the agricultural land is

established as an agricultural land reserve and shall be subject to this Act and the regulations.

(2) The regional board of every regional district, either alone, or in co-operation with its member municipalities, shall, with the advice and assistance of the commission if required, including such financial assistance as may be determined by the commission, within ninety days after the coming into force of this Act or within such further time as the commission may allow, by by-law, adopt a land reserve plan prepared in accordance with the regulations and file the by-law and land reserve plan with the commission.

(3) The council or regional board, as the case may be, shall not adopt a by-law for the purpose of this section until it has held a public hearing, notice of which has been published in the manner prescribed in section 703 of the *Municipal Act*, and except upon the affirmative vote of a majority of all the members of council or of all the directors of a regional board.

(4) The provisions of section 703 of the *Municipal Act* apply, with the necessary changes and so far as are applicable, to a hearing under subsection (3).

(5) Where the commission considers that the land reserve plan filed under subsection (2) carries out the intent and purpose of this Act, it shall, after approval of the Lieutenant-Governor in Council, designate the agricultural land shown therein as an agricultural land reserve.

(6) Where the commission considers it necessary or advisable to amend the land reserve plan filed under subsection (2) to better carry out the intent and purpose of this Act, it may recommend to the Lieutenant-Governor in Council amendments to the land reserve plan, and shall, after approval by the Lieutenant-Governor in Council of the land reserve plan or the land reserve plan as amended, designate the agricultural land therein as an agricultural land reserve.

(7) Where the council or regional board of a municipality or regional district, as the case may be, fails or refuses to prepare and file a land reserve plan with the commission in accordance with subsection (2), the commission shall, subject to subsections (8), (9), and (10), prepare a land reserve plan and submit the land reserve plan to the Lieutenant-Governor in Council for approval.

(8) The commission shall not submit the land reserve plan prepared under subsection (7) to the Lieutenant-Governor in Council until it has held a public hearing, notice of which has been published in the manner prescribed in subsection (1) of section 703 of the *Municipal Act*, and the provisions of subsections (2), (3), and (4) of section 703 of the *Municipal Act* apply, with the necessary changes and so far as are applicable, to a hearing under this subsection.

(9) For the purpose of a hearing under subsection (8),

- (a) the commission has and may exercise all the powers of a Commissioner under sections 7, 10, and 11 of the *Public Inquiries Act*;

- (b) the commission may accept written submissions or any other form of evidence; and
- (c) notwithstanding subsection (3) of section 2, three members of the commission have and may exercise all the powers of the commission.

(10) The Lieutenant-Governor in Council may approve a land reserve plan as submitted by the commission under subsection (7), or with such alterations or variations as he may consider necessary or advisable to carry out the intent and purpose of this Act, and the commission may thereupon, pursuant to subsection (1), designate the agricultural land shown therein as an agricultural land reserve.

(11) Notwithstanding the other provisions of this section, pending the establishment of an agricultural land reserve in a municipality or regional district under this section, all land that is zoned for agricultural or farm use under a by-law of the municipality or regional district subsisting immediately prior to the twenty-first day of December, 1972, shall be deemed to be an agricultural land reserve and subject to this Act and the regulations, unless excepted by the commission.

Exclusion
from agri-
cultural land
reserve.

9. (1) The Lieutenant-Governor in Council may, upon the application of a municipality, regional district, or the commission, or on his own, by order, exclude any land, whether Crown land or private land, from the reserve established under subsection (1) of section 8.

(2) Subject to subsection (5), an owner of land aggrieved by a designation by the commission of his land as part of an agricultural land reserve under section 8 may, notwithstanding that he appeared before, or made representations to, the municipality, or regional district, or the commission under subsection (3) or (8) of section 8, apply to the commission in the manner prescribed by the regulations to have his land excluded from the agricultural land reserve.

(3) The commission, after a hearing held in such manner and after such notice as is prescribed by the regulations, may allow the application upon such terms and conditions as it considers advisable, or may refuse the application.

(4) Notwithstanding subsection (3) of section 2, for the purpose of the hearing, three members of the commission have and may exercise all the powers of the commission.

(5) Where land of an owner was, immediately prior to the twenty-first day of December, 1972, zoned for agricultural or farm use under a by-law of a municipality or regional district subsisting on that date, the owner is not entitled to apply to the commission under subsection (2) unless so authorized by a resolution of a municipality or a regional district, as the case may be.

(6) The commission shall, at the request of the owner,

- (a) deliver to him its decision in writing; and

(b) allow him to examine and make available to him copies of all relevant documents in the custody of the commission pertaining to his application.

(7) A person who is dissatisfied with the decision of the commission,

(a) upon being authorized to appeal by a resolution of the municipality or regional district, as the case may be; and

(b) upon being granted leave to appeal by any two members of the commission,

may appeal, in the manner prescribed in the regulations to the Environment and Land Use Committee established under the *Environment and Land Use Act*.

(8) Subject to the procedure prescribed by the regulations, an appeal under this section shall be a hearing and review, but the Environment and Land Use Committee may accept written submissions or any other form of evidence, provided any such submission or other form of evidence is made available to the appellant.

(9) The Environment and Land Use Committee may, after a hearing, allow the appeal, subject to such terms and conditions as it may consider advisable, or refuse the appeal; and, in the event the appeal is refused, may order that any costs of the hearing be paid by the appellant, and, in the event the appeal is allowed, shall order that the reasonable costs incurred by the appellant be paid by the commission.

(10) The commission is entitled to be a party on the hearing of the appeal and may take part in the proceedings.

(11) Where land is excluded from a land reserve plan by order of the commission or the Environment and Land Use Committee under this section, the commission shall amend the land reserve plan accordingly and notify the municipality or regional district, as the case may be, and the appropriate Registrar of Titles.

**Agricultural
land reserve.**

10. (1) No person shall occupy or use agricultural land designated as an agricultural land reserve pursuant to section 8 for any purpose other than farm use, except as permitted by this Act or the regulations or by order of the commission upon such terms and conditions as the commission may impose.

(2) In addition to the exceptions, reservations, or limitations set out in subsection (1) of section 38 of the *Land Registry Act*, a certificate of title heretofore issued under that Act in respect of agricultural land that is designated as an agricultural land reserve shall be subject, by implication and without special endorsement on the certificate of title, to this Act and the regulations respecting the reserve and farm use of the land contained therein; and the Registrar under the *Land Registry Act* shall note on every certificate of title of agricultural land hereafter issued that is designated as an agricultural land reserve an endorsement that the certificate of title may be affected by this Act.

(3) Notwithstanding subsection (2), the commission may, in respect of any agricultural land that is an agricultural land reserve, register a caveat in the appropriate Land Registry Office restricting the agricultural land described therein to farm use.

(4) On, from, and after the twenty-first day of December, 1972, except as permitted by this Act, or the regulations, or by an order of the commission upon such terms and conditions as the commission may impose,

- (a) no municipality, or regional district, or any authority, board, or other agency established by it shall authorize or permit agricultural land in an agricultural land reserve to be used for a purpose other than farm use, or authorize or permit a building to be erected thereon except
 - (i) for farm use; or
 - (ii) for residences necessary for farm use; or
 - (iii) such residences for an owner of the agricultural land as may be permitted to be erected by the regulations;
- (b) no person, designated or appointed under the *Local Services Act*, shall authorize or permit agricultural land in an agricultural land reserve to be used for a purpose other than farm use, or authorize or permit a building to be erected thereon except
 - (i) for farm use; or
 - (ii) for residences necessary for farm use; or
 - (iii) such residences for an owner of the agricultural land as may be permitted to be erected by the regulations;
- (c) no approving officer under the *Land Registry Act* and no approving officer or Board of Variance under the *Municipal Act* shall authorize or permit agricultural land in an agricultural land reserve to be used for a purpose other than farm use; and
- (d) no Registrar of Titles under the *Land Registry Act* shall accept an application for deposit of a plan of subdivision under the *Land Registry Act*, or under the *Strata Titles Act*, or under the *Real Estate Act*, all or part of which consists of agricultural land in an agricultural land reserve.

Exemption.

11. (1) Section 10 does not apply in respect of agricultural land in an agricultural land reserve that, on the twenty-first day of December, 1972, was, by separate certificate of title issued under the *Land Registry Act*, less than two acres in area.

(2) Where a use of agricultural land that is within an agricultural land reserve

- (a) is a use other than farm use; and
 - (b) was established and carried on continuously for a period of at least six months immediately prior to the twenty-first day of December, 1972; and
 - (c) is permitted by, or is not in contravention of, any other Act, regulation, by-law, order, or any other law respecting land use,
- that agricultural land is exempted from section 10 unless and until
- (d) the use of that agricultural land is changed to a use other than farm use without the permission of the commission; or

- (e) any other Act, regulation, by-law, order, or any other law made after the twenty-first day of December, 1972, prohibits such use; or
- (f) permission for any other use granted under any other Act, regulation, by-law, or order is withdrawn or expires.

(3) Where agricultural land, exempted under subsection (2), is sold, leased, transferred, transmitted, or otherwise disposed of, this Act and the regulations thereupon apply to that land, except as otherwise permitted by the commission.

(4) The commission may, in accordance with the regulations, hear and determine applications for permission under subsections (2) and (3), and under subsections (1) and (4) of section 10, and may grant or refuse permission for a use of the land for other than farm use, and may impose whatever terms and conditions it considers advisable, and, except as provided in subsection (5), the decision of the commission is final and no appeal lies from that decision.

(4a) Where land of an owner was, immediately prior to the twenty-first day of December, 1972, zoned for agricultural or farm use under a by-law of a municipality or regional district subsisting on that date, the owner is not entitled to apply to the commission for permission for any other use under section 10 or 11, unless so authorized by a resolution of a municipality or a regional district, as the case may be.

(5) An owner of land aggrieved

- (a) by an order or decision of the commission refusing permission under subsection (1) or (4) of section 10 or under this section; or
- (b) by the terms and conditions imposed by the commission in an order made under subsection (1) or (4) of section 10, or a permission granted under this section,

may appeal, on a question of law or excess of jurisdiction only, by way of stated case to the Supreme Court, and the provisions of the *Summary Convictions Act* respecting appeals by way of stated case apply, with the necessary changes and so far as are applicable, to the appeal, and to any further appeal therefrom, and a reference in that Act to a Justice shall be deemed to be a reference to the commission.

12. With respect to agricultural land designated as an agricultural land reserve, the commission may

- (a) make agreements with the owners of agricultural land respecting continued farm use of the agricultural land upon such terms and conditions as may be agreed;
- (b) carry on farming operations on commission land or agree with other persons to do so;
- (c) withdraw from an agricultural land reserve agricultural land owned by the commission and, with the prior approval of the Lieutenant-Governor in Council, dispose of such land to the Crown to be dealt with under the *Land Act*;

Additional
powers re
agricultural
land.

- (d) dispose of agricultural land owned by the commission, with the prior approval of the Lieutenant-Governor in Council, to private ownership for permanent farm use, or any other use considered by the commission to be in the public interest, subject to such terms and conditions as the commission may determine; and
- (e) subject to the approval of the Minister of Finance, or of the Minister of Municipal Affairs, as the case may be, establish a system of tax incentives to encourage the dedication of privately owned agricultural land to permanent farm use, and to increase the agricultural productivity thereof.

**Capital
improvements.**

13. The commission may make, place, or construct on or bring onto, or cause to be made, placed, or constructed on or brought onto, any commission land such capital improvements as it considers necessary or desirable for the efficient development or use of the commission land or other land in the vicinity, and pay for or purchase any capital improvements made, placed, or constructed on or brought onto any commission land by any person.

Taxes.

14. Where commission lands are unoccupied or a lease of commission land does not provide for the payment of tax by the lessee, the commission may pay to the municipality or regional district a grant in lieu of taxes.

Fees.

15. The commission may establish, with the approval of the Lieutenant-Governor in Council, a schedule of fees to be paid to the commission for the preparation of leases and other documents, for appraisals and evaluations of land, and for copies of documents of the commission.

**No right to
compensation
in respect
of reserve
land.**

16. Land shall be deemed not to be taken or injuriously affected by reason of the designation by the commission of that land as an agricultural land reserve.

Agreements.

17. For the purposes of this Act, the minister may, subject to the approval of the Lieutenant-Governor in Council, enter into such agreements as the minister considers advisable with

- (a) the Government of Canada;
- (b) a municipality;
- (c) a regional district;
- (d) an agent of the Crown; or
- (e) any other department of Government.

Reports.

18. (1) The commission shall submit annually to the Lieutenant-Governor in Council

- (a) a report respecting the operations of the commission for the immediately preceding fiscal year;

- (b) a financial statement showing the business of the commission for that fiscal year, in such form as may be required by the Comptroller-General.

(2) The report shall be laid before the Legislative Assembly within fifteen sitting days from the commencement of the session next following the end of the fiscal year for which the report is made; but the commission is not required to submit its annual report less than ninety days after the end of its fiscal year.

Regulations.

19. For the purpose of carrying out the provisions of this Act according to their intent, the Lieutenant-Governor in Council may make such regulations and orders as are ancillary thereto and not inconsistent therewith; and every regulation shall be deemed to be part of this Act and has the force of law; and, without restricting the generality of the foregoing, the Lieutenant-Governor in Council may make regulations and orders

- (a) respecting land reserve plans for, and the designation, establishment, and approval of, agricultural land reserves, and the designation of farm use;
- (b) respecting applications to the commission for permission under section 10 and section 11, and the practice and procedure for hearing the application, and for applications, hearings, and appeals under sections 8 and 9;
- (c) respecting residences for owners under subsection (4) of section 10;
- (d) respecting the appraisal of land and the acquisition, by purchase or lease, of land;
- (e) respecting applications for sale or lease of commission land or personal property, or Crown land that is in a reserve, and the terms and conditions of sale or lease;
- (f) respecting the management and control of commission land;
- (g) prescribing the method of determining the eligibility of applicants to lease or purchase commission land;
- (h) prescribing the interest payable in respect of purchases from the commission or arrears of rents;
- (i) providing for varying, waiving, postponing, or rescheduling of interest or rent or the payment of interest or rent; and
- (j) respecting any other matter required for carrying out the purpose of this Act.

**Application
of other
Acts.**

20. (1) This Act is subject to the *Environment and Land Use Act*, and the *Pollution Control Act, 1967*, but otherwise, except as provided in this Act or in the regulations, this Act and the regulations are not subject to any other Act or regulations, whenever enacted or made, and no Minister, department of Government, or agent of the Crown shall exercise any power granted under any other Act or regulation except in accordance with this Act and the regulations.

(2) Notwithstanding the *Land Act* or any other Act or law, the commission, as agent of Her Majesty in right of the Province, shall administer as commission land all Crown land that is established under section 7 or 8 as reserve land, and may sell, lease, or otherwise dispose of any portion of such land in accordance with this Act upon such terms and conditions as the commission may determine.

(3) Notwithstanding subsection (1), where Crown land that is established as an agricultural land reserve under section 8 has been leased by the Crown, or sold by agreement for sale by the Crown and not transferred to the purchaser before the twenty-first day of December, 1972, and on that date was being used for a purpose other than farm use, but as permitted by, or not in contravention of, the terms and conditions of the lease or agreement for sale, that use may continue until the termination of the lease or the issue of title to the purchaser under the agreement for sale.

(4) Subject to subsection (5), nothing in this Act or the regulations affects or impairs the validity of a by-law of a municipality or regional district relating to the use of agricultural land in an agricultural land reserve except in so far as the by-law is contrary to, or is in conflict with, inconsistent with, or repugnant to, this Act, or the regulations, or an order of the commission; and in case of any conflict, inconsistency, or repugnancy between the by-law and this Act, or the regulations, or order of the commission, this Act or the regulations or the order of the commission prevails.

(5) A by-law or regulation of a municipality or regional district, or any provision thereof, that is, in any manner, in conflict with, inconsistent with, or repugnant to this Act, or the regulations, or order of the commission is suspended and of no effect to the extent of such conflict, inconsistency, or repugnancy.

(6) A by-law or regulation of a municipality or regional district that provides for further or additional restrictions or conditions respecting farm use of agricultural land than those provided by this Act and the regulations is not, for that reason alone in conflict with, inconsistent with, or repugnant to this Act and the regulations.

(7) Subject to subsection (8), the *Companies Act* does not apply to the commission.

(8) The Lieutenant-Governor in Council may, by order, declare that any of the provisions of the *Companies Act* apply to the commission, and those provisions thereupon apply to the commission.

Appropriation.

21. (1) For the purposes of this Act and the establishment of an agricultural land reserve under section 8, the Minister of Finance shall, from time to time as required by the commission, pay out of the Consolidated Revenue Fund, or the Revenue Surplus Appropriation Account of the Consolidated Revenue Fund, or partly from the Consolidated Revenue Fund and partly from the Revenue Surplus Appropriation Account, to the

commission, an amount not exceeding in the aggregate twenty-five million dollars.

(2) For the purposes of this Act and the establishment of green belt land reserves, land bank land reserves, or park land reserves, the Minister of Finance may pay under the *Green Belt Protection Fund Act* or the *Accelerated Park Development Fund Act*, or any other Act that authorizes moneys to be paid for such purposes, such amounts as he may consider necessary for the purpose of this Act.

(3) Further moneys required for the purposes of this Act shall be paid out of the Consolidated Revenue Fund with moneys authorized by an Act of the Legislature to be paid and applied for such purposes.

**Commence-
ment.**

22. (1) This Act, excepting this section, comes into force on a date to be fixed by the Lieutenant-Governor by his Proclamation and he may fix different dates for the coming into force of the several provisions of this Act; and the date of the coming into force of any of the provisions of this Act may be declared to be before or after the enactment of this Act.

(2) Where the date of the coming into force of any of the provisions of this Act is prior to the enactment of this Act, that provision of the Act is retroactive to the extent necessary to give full force and effect to that provision on, from, and after that date.

(3) This section comes into force on Royal Assent.

APPENDIX G

B.C. Reg. 60/74

Filed February 4, 1974

LAND COMMISSION ACT

ORDER IN COUNCIL 353, APPROVED AND ORDERED JANUARY 31, 1974

Pursuant to the *Land Commission Act*, and upon the recommendation of the undersigned, the Lieutenant-Governor, by and with the advice and consent of the Executive Council, orders that the following regulation be made:

APPLICATIONS UNDER LAND COMMISSION ACT

Applications by a Municipality, Regional District, or the Commission to Exclude Land From an Agricultural Land Reserve Under Section 9 (1) of the Act

1. Where a municipality, regional district, or the commission makes an application to the Lieutenant-Governor in Council under section 9 (1) of the Act, the application shall be in substantial compliance with Schedule A to this regulation, and the applicant shall notify the other two parties referred to in section 9 (1) of the Act by sending to each party a copy of the application and the supporting material, and the Lieutenant-Governor in Council, prior to considering the application, shall allow each party to make representations in respect of the application.

2. Where the Lieutenant-Governor in Council, under section 9 (1) of the Act, intends, by his own Order, to exclude land, he shall notify the commission, the regional district, and, if applicable, the municipality, and shall allow each party to make representations in respect of the intended action.

3. Where the Lieutenant-Governor in Council, by his own Order under section 9 (1) of the Act, excludes any land, the Lieutenant-Governor in Council shall notify the commission of such action, and the commission shall in turn notify the regional district and, if applicable, the municipality, and the appropriate registrar of titles.

Applications by an Owner to Exclude Land Under Section 9 (2) Pursuant to Section 9 (3) of the Act

4. Where an owner makes an application to the commission under section 9 (2) of the Act, the applicant shall file the application in compliance with Schedule A to this regulation in the office of the secretary-treasurer of the regional district in which the land is situated and shall pay to the secretary-treasurer a processing fee of twenty-five dollars.

5. (1) The secretary-treasurer shall forthwith obtain the information as prescribed in Schedule B to this regulation and complete the Schedule.

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(2) Where the land is located in unorganized territory, the secretary-treasurer shall supply the information required by items (1) to (9) of Schedule B; but, where the land is located in a municipality, the secretary-treasurer shall require the clerk of the municipality to supply the information referred to in items (2) to (9), and the clerk shall forthwith supply such information.

6. The secretary-treasurer shall, forthwith after receipt of the application and of the information required to complete Schedule B pursuant to sections 4 and 5, forward copies of Schedules A and B to the regional district, and, if applicable, the municipality.

7. Where an application filed under section 4 is in respect of land referred to in section 9 (5) of the Act, no further proceedings shall be taken unless and until the municipality or regional district passes the resolution referred to in section 9 (5) of the Act authorizing the application.

8. Where a resolution is passed pursuant to section 9 (5) of the Act, the secretary-treasurer shall transmit to the commission, along with the other information required pursuant to section 11, a certified copy of the resolution of the regional district where the land is located in unorganized territory, or a certified copy of the resolution of the municipality where the land is located in a municipality.

9. The regional district or municipality may, if it considers it necessary or advisable, transmit its recommendations, comments, opinions, or any other information in respect of any application to the commission within the time limited under section 11.

10. (1) The regional district may, if it considers it necessary or advisable, hold public information meetings in respect of any application and, where such a meeting is held, at least one member of the regional district representing the area within the land that is the subject matter of the application is situated shall attend and shall report to the regional district the views expressed at the meeting.

(2) The member of the regional district referred to in subsection (1) shall transmit a copy of the report or a summary thereof, indicating the degree of support for or opposition to, the application to the commission pursuant to section 11.

11. The secretary-treasurer shall, within thirty days, or, where a public information meeting is held pursuant to section 10, within sixty days, after receipt of an application, transmit the application in Schedule A and the information required in Schedule B, and the resolution, if required under section 8, and any other information pursuant to sections 9 and 10, to the commission.

12. Notwithstanding anything in these regulations or in Schedule A or B appended hereto, the commission may require of the applicant, or of the regional district or municipality, such further or additional information as it considers necessary.

13. A hearing required by section 9 (3) of the Act shall be held at a time and at a place designated by the commission and may be adjourned from time to time.

14. (1) The commission shall give written notice of the date and place of the hearing to

- (a) the applicant;
- (b) the regional district;

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(c) the municipality, if any; and
 (d) such owners or occupiers of land located adjacent to the land referred to in the application as it may consider necessary or advisable,
 not less than ten days and not more than thirty days before the date of the hearing.

(2) The notice of hearing shall

- (a) identify the land referred to in the application;
- (b) state the purpose of the application; and
- (c) state the place and time at which the application and the documents pertaining to the application may be inspected.

15. The commission shall cause to be mailed by registered mail to the applicant a statement of the facts, opinions, and other information, or a summary thereof, received by the commission to be submitted to the commission at the hearing.

16. The commission shall, at the request of the applicant or his agent, allow him or his agent to examine and make copies of all relevant documents in the custody of the commission pertaining to the application.

17. (1) The applicant is entitled to make representations at the hearing personally or by his counsel or agent.

(2) The commission may order the applicant or any other person to give his evidence upon oath.

18. For the purpose of the hearing, the commission

- (a) has and may exercise all the powers of a Commissioner under sections 7, 10, and 11 of the *Public Inquiries Act*;
- (b) may accept written submissions or any other form of evidence notwithstanding that it may not be evidence in a Court of law; and
- (c) may hear representations, evidence, and opinions of any person present or represented at the hearing, and of the regional district and municipality, that are relevant to the application.

19. Where any evidence is presented at the hearing a statement of which has not been sent to the applicant pursuant to section 15, the commission,

- (a) where the applicant, or his counsel or agent, is present at the hearing, may hear further representations in respect of such evidence, or adjourn the hearing to enable the applicant to make answer to such evidence; or
- (b) where the applicant, or his counsel or agent, is not present at the hearing, shall notify the applicant by registered mail of the additional evidence presented by the hearing and the date within which such additional evidence may be answered.

Applications to Appeal Under Section 9 (7) of the Act

20. (1) A person who is dissatisfied with the decision of the commission under section 9 (2) of the Act may file a notice of appeal to the Environment and Land Use Committee.

(2) The person shall file with the notice of appeal

- (a) a certified copy of a resolution of the regional district, where the land is in unorganized territory, or a resolution of the municipality

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where the land is within a municipality, authorizing the appellant to appeal; and

(b) a certificate of leave to appeal signed and dated by two members of the commission.

(3) A certificate of leave to appeal expires sixty days after the date shown thereon.

21. An appeal under section 20 shall be filed with the Environment and Land Use Committee by delivering it or mailing it by registered mail to the secretary of that committee in Victoria, British Columbia.

22. The appellant shall state in the notice of appeal the reasons for the appeal and the grounds upon which he alleges that the decision of the commission is wrong.

23. The appellant shall attach to the notice a copy of the application and the attached documents filed with the commission on the original application.

24. The appellant shall deliver or mail by registered mail a copy of the notice of appeal to each person who made a submission or gave evidence in support of or in opposition to the original application, and to the regional district and the municipality, if any, and to the commission.

25. Upon receipt of a copy of the notice of appeal, the commission shall forthwith transmit to the secretary of the Environment and Land Use Committee

(a) a copy of all the documents in the custody of the commission pertaining to the original application;

(b) a transcript of any evidence that was transcribed at the hearing; and

(c) a copy of the decision of the commission, and the reasons therefor, if any.

26. The Environment and Land Use Committee shall notify the appellant of the date and place of the hearing and the appellant shall deliver or serve by registered mail a copy of the notice on each person, regional district, and municipality served with the notice of appeal at least ten days before the date of the hearing.

27. The Environment and Land Use Committee shall, at or before the hearing, review all the documents filed with it pertaining to the appeal, and at the hearing shall hear the representations and evidence of the commission, the appellant, and the regional district, municipality, and other persons who made representations or gave evidence on the original application, and such other evidence as the Environment and Land Use Committee may consider necessary.

28. Sections 17 and 18 apply to a hearing and review under section 27 and the words "Environment and Land Use Committee" shall be substituted for "commission", where applicable.

*Applications to Exempt the Use of Land Under Section 11 (4) of the Act,
Pursuant to Section 10 (1) and (4) and Section 11 (2) and (3) of the
Act*

Where a person makes an application to the commission under section 11 (4) of the Act, pursuant to section 10 (1) and (4) and section 11 (2) and (3) of the Act, the applicant shall file an application in substantial compliance with Schedule A hereto in the office of the secretary-treasurer of the regional district in which the

B.C. Reg. 60/74

land is situated and shall pay to the secretary-treasurer a processing fee of twenty-five dollars.

30. Sections 5 and 12 apply in respect of applications filed pursuant to section 29.

31. The commission may, where it is considered necessary or advisable, hold a hearing with respect to any application filed pursuant to section 29 and the meeting shall be held at a time and place designated by the commission and may be adjourned from time to time.

32. Where the commission holds a hearing under section 31, sections 14 to 19 apply in respect of the hearing.

D. D. STUPICH
Minister of Agriculture

D. BARRETT
Presiding Member of the Executive Council

SCHEDULE A

APPLICATION UNDER THE LAND COMMISSION ACT
(Information to be supplied by applicant)

I, _____
(Name) (Address) (Telephone)
the undersigned, being owner

I, _____
(Name) (Address) (Telephone)
the authorized agent of the undersigned owner of the following properties:

(Legal description)

_____ within the Regional District of _____

do hereby make application under _____

• (Section 9 (2) or Section 11 (4))

of the *Land Commission Act* to _____

(Select either (a) or (b) below)

if pursuant to section 9 (2)—

(a) have the above described properties excluded from the Agricultural Land Reserve Plan of the _____ Regional District.

if pursuant to section 11 (4)—

(b) describe as fully as possible the nature of the application for permission; i.e., whether under section 10 (1) and (4) or section 11 (2) and (3) of the *Land Commission Act* and for what purposes.

My reasons for requesting this action are as follows:

In support of this application I submit one copy of each of the following as addenda, and am prepared to supply such additional copies of any items as the commission may direct:

B.C. Reg. 60/74

- (a) A map or maps and/or plan or plans of appropriate scale, indicating
 - (i) the subject property of the application, in terms of the smallest existing legal parcel or parcels, and the location of the subject property within the Agricultural Land Reserve; and
 - (ii) where the applicant owns, leases, or rents additional properties, the collective properties or farm unit under the ownership, lease, or rental of the applicant in the immediate area of the application.
 Such maps or plans must identify parcels by legal description, and specify boundary lines, dimensions, areas, ownership, and tenure.
 It is preferable that these maps or plans be those of a surveyor, engineer, architect, planner, or other equivalent professional:
- (b) A description of the existing use of the overall properties or farm unit, and of the subject property, including photographs of the property and buildings and any other details or information relating to the present usage of the property:
- (c) A brief description, either in words or by plan of the existing land use and buildings adjacent to and surrounding the property:
- (d) A description of the proposed use of the subject property including, if available, plans of any proposed buildings or development:
- (e) Any other information or comments.

I hereby declare that the information contained herein is to the best of my knowledge factual and correct.

.....
 (Signature of owner)

 (Owner's name printed)

 (Date)

SCHEDULE B
INFORMATION TO BE SUPPLIED BY
REGIONAL DISTRICT AND/OR MUNICIPALITY

In respect to the application of.....
(Name of applicant)

..... on the following properties:
(Address)

.....
(Legal description)

....., the following information is applicable:

- (1) If applicable, the regional plan designation of the subject property and a description of the permitted uses, minimum lot size, and other regulations pertaining thereto:
- (2) Any other applicable community or other plan or study designations:
- (3) The zoning applicable to the subject property at the date of application and a description of the permitted uses, minimum lot size, and other regulations pertaining thereto:
- (4) The zoning applicable to the subject property immediately prior to the twenty-first day of December, 1972:
- (5) A description of the use of the subject property, including any details relating to occupancy and legality of use and occupancy:
- (6) A brief description of the existing land use and buildings adjacent to and surrounding the subject property:

B.C. Reg. 60/74

- (7) A description of the services available to the subject property or the possibility or feasibility of providing services:
- (8) Indication of whether property is located in floodplain:
- (9) Any other information or comments.

.....
(Signature of secretary-treasurer or administrator)

.....
(Date)

VITA

Surname: FUMALLE Given Names: MICHAEL JOHN

Place of Birth: LONDON, ENGLAND Date of Birth: MARCH 16, 1944

Educational Institutions Attended, with Dates of Entering and Leaving:

SOUTHERN ALBERTA INSTITUTE OF TECHNOLOGY, CALGARY 1962 - 1964

THE UNIVERSITY OF CALGARY, CALGARY 1967 - 1970

Degrees, Diplomas, Etc., Awarded, with Dates and Names of Institutions:

DIPLOMA, ARCHITECTURAL TECHNOLOGY 1964 S.A.I.T., CALGARY

B.A. 1970 UNIVERSITY OF CALGARY

Honours and Awards:

UNIVERSITY OF VICTORIA SCHOLARSHIP, 1972/73

Publications:

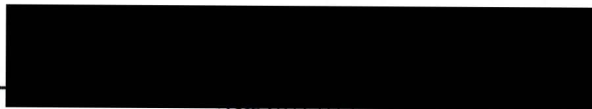
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Title of Thesis

PUBLIC POLICY AND THE PRESERVATION OF AGRICULTURAL LAND
IN THE SOUTHERN OKANAGAN VALLEY, BRITISH COLUMBIA

Author



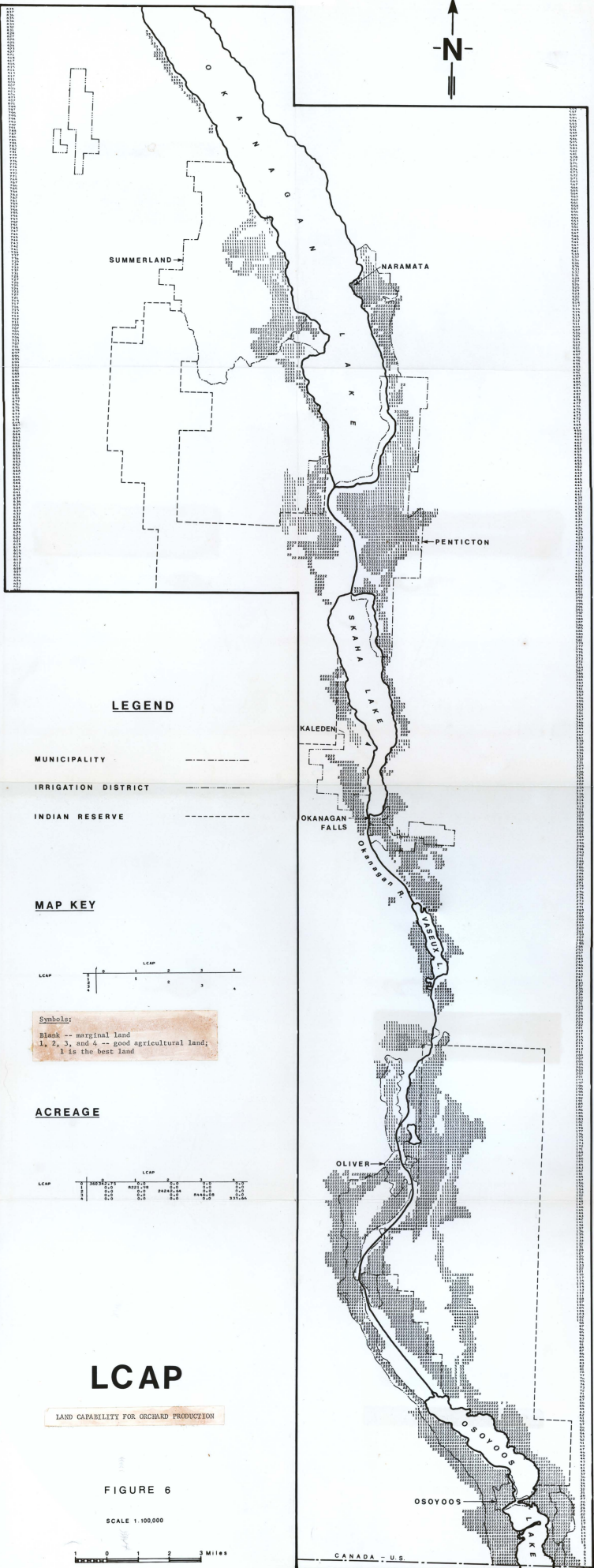
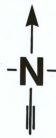
Signature

Michael J. Fumalle

Name

June 9, 1975

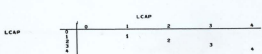
Date



LEGEND

- MUNICIPALITY -----
- IRRIGATION DISTRICT -----
- INDIAN RESERVE -----

MAP KEY



Symbols:

Blank -- marginal land
 1, 2, 3, and 4 -- good agricultural land;
 1 is the best land

ACREAGE

LCAP	LCAP									
	1	2	3	4	5	6	7	8	9	10
1	100	100	100	100	100	100	100	100	100	100
2	100	100	100	100	100	100	100	100	100	100
3	100	100	100	100	100	100	100	100	100	100
4	100	100	100	100	100	100	100	100	100	100
5	100	100	100	100	100	100	100	100	100	100
6	100	100	100	100	100	100	100	100	100	100
7	100	100	100	100	100	100	100	100	100	100
8	100	100	100	100	100	100	100	100	100	100
9	100	100	100	100	100	100	100	100	100	100
10	100	100	100	100	100	100	100	100	100	100

LCAP

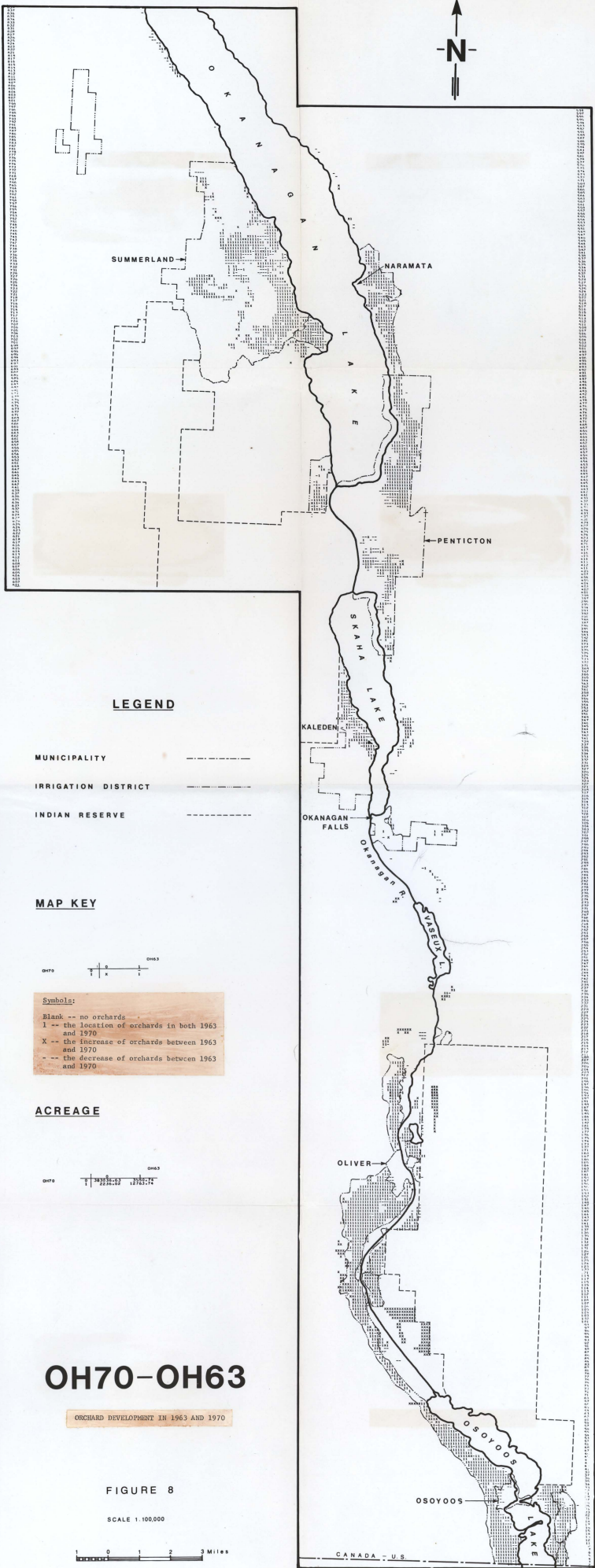
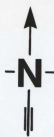
LAND CAPABILITY FOR ORCHARD PRODUCTION

FIGURE 6

SCALE 1:100,000



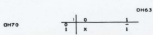
CANADA - U.S.



LEGEND

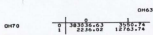
- MUNICIPALITY -----
- IRRIGATION DISTRICT -----
- INDIAN RESERVE -----

MAP KEY



Symbols:
 Blank -- no orchards
 l -- the location of orchards in both 1963 and 1970
 X -- the increase of orchards between 1963 and 1970
 - - the decrease of orchards between 1963 and 1970

ACREAGE



OH70-OH63

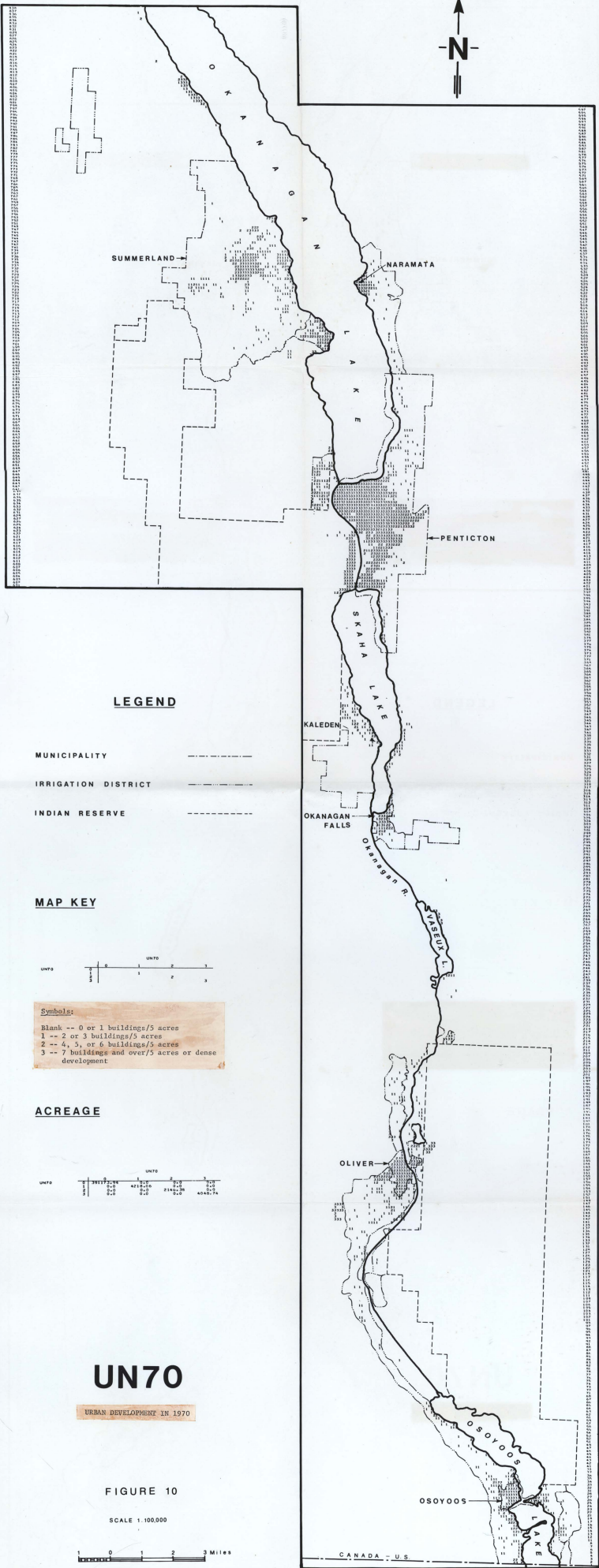
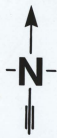
ORCHARD DEVELOPMENT IN 1963 AND 1970

FIGURE 8

SCALE 1:100,000



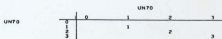
CANADA - U.S.



LEGEND

- MUNICIPALITY -----
- IRRIGATION DISTRICT -----
- INDIAN RESERVE -----

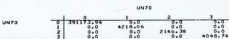
MAP KEY



Symbols

Blank -- 0 or 1 buildings/5 acres
 1 -- 2 or 3 buildings/5 acres
 2 -- 4, 5, or 6 buildings/5 acres
 3 -- 7 buildings and over/5 acres or dense development

ACREAGE



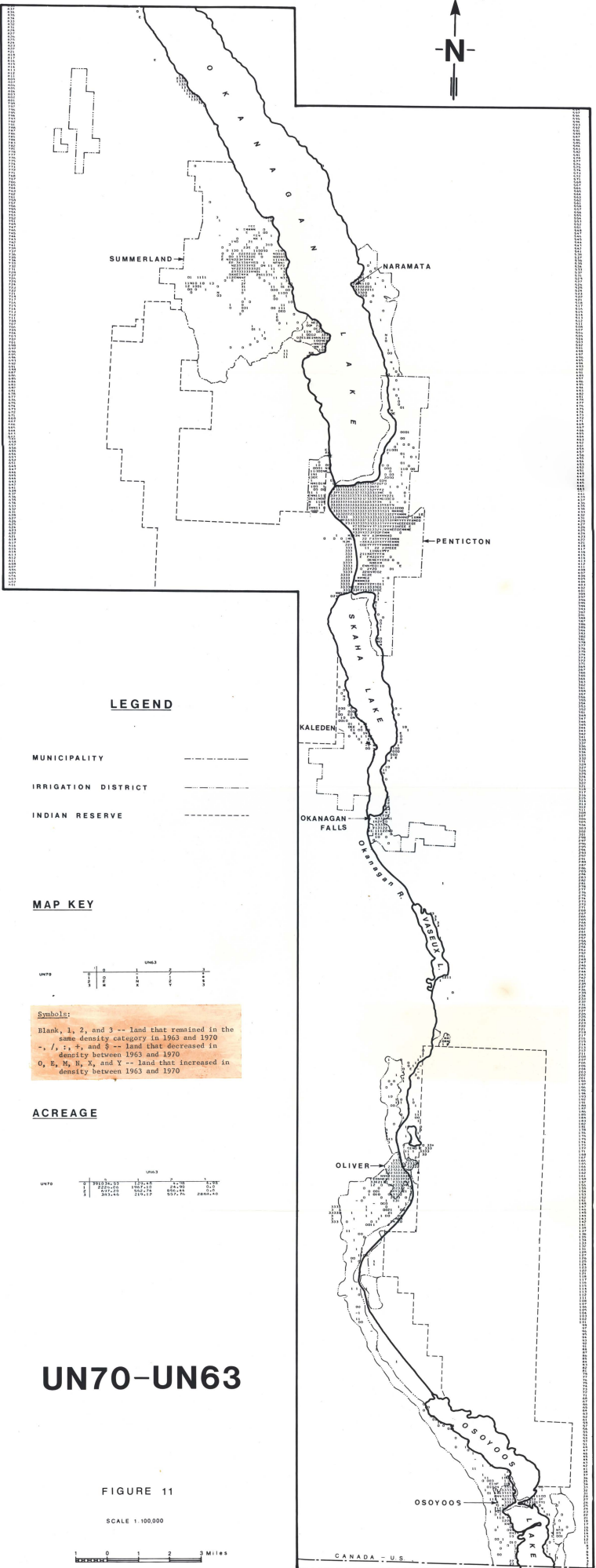
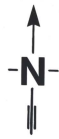
UN70

URBAN DEVELOPMENT IN 1970

FIGURE 10

SCALE 1:100,000

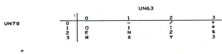




LEGEND

- MUNICIPALITY - - - - -
- IRRIGATION DISTRICT - - - - -
- INDIAN RESERVE - - - - -

MAP KEY



Symbols:
 Blank, 1, 2, and 3 -- land that remained in the same density category in 1963 and 1970
 -, /, ., +, and 0 -- land that decreased in density between 1963 and 1970
 O, E, M, N, X, and Y -- land that increased in density between 1963 and 1970

ACREAGE

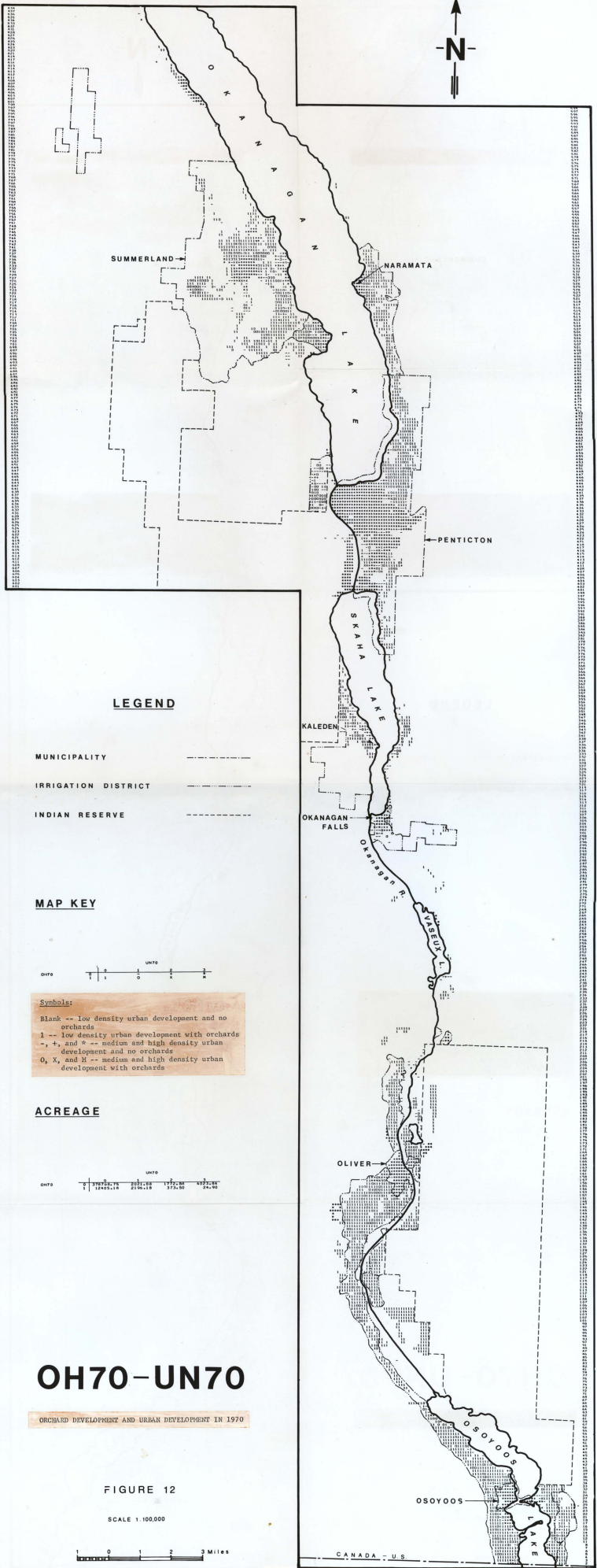
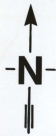
UN70		UN63	
1	393334.23	132118	27.98
2	224778	894712	684.94
3	381446	216117	937.96
			2866.88

UN70-UN63

FIGURE 11

SCALE 1:100,000





LEGEND

- MUNICIPALITY -----
- IRRIGATION DISTRICT -----
- INDIAN RESERVE -----

MAP KEY



Symbols:

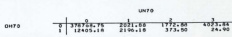
Blank -- low density urban development and no orchards

1 -- low density urban development with orchards

•, +, and * -- medium and high density urban development and no orchards

O, X, and M -- medium and high density urban development with orchards

ACREAGE



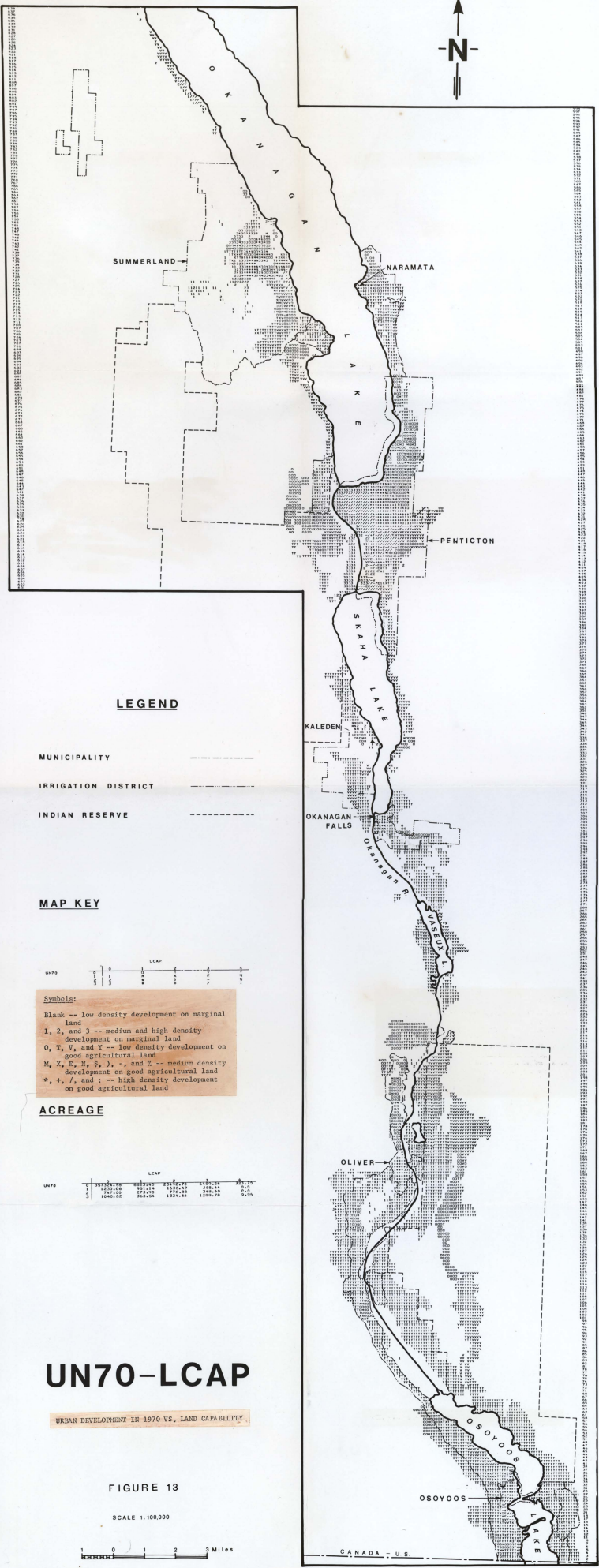
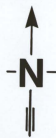
OH70-UN70

ORCHARD DEVELOPMENT AND URBAN DEVELOPMENT IN 1970

FIGURE 12

SCALE 1:100,000

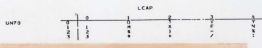




LEGEND

- MUNICIPALITY -----
- IRRIGATION DISTRICT - - - - -
- INDIAN RESERVE - - - - -

MAP KEY



Symbols:
 Blank -- low density development on marginal land
 1, 2, and 3 -- medium and high density development on marginal land
 O, T, V, and Y -- low density development on good agricultural land
 M, X, E, N, S, J, -, and Z -- medium density development on good agricultural land
 *, +, /, and : -- high density development on good agricultural land

ACREAGE

UN70	LCAP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	1000-2000	2000-3000	3000-4000	4000-5000	5000-6000	6000-7000	7000-8000	8000-9000	9000-10000	10000-11000	11000-12000	12000-13000	13000-14000	14000-15000	15000-16000	16000-17000	17000-18000	18000-19000	19000-20000	20000-21000	21000-22000	22000-23000	23000-24000	24000-25000	25000-26000	26000-27000	27000-28000	28000-29000	29000-30000	30000-31000	31000-32000	32000-33000	33000-34000	34000-35000	35000-36000	36000-37000	37000-38000	38000-39000	39000-40000	40000-41000	41000-42000	42000-43000	43000-44000	44000-45000	45000-46000	46000-47000	47000-48000	48000-49000	49000-50000	50000-51000	51000-52000	52000-53000	53000-54000	54000-55000	55000-56000	56000-57000	57000-58000	58000-59000	59000-60000	60000-61000	61000-62000	62000-63000	63000-64000	64000-65000	65000-66000	66000-67000	67000-68000	68000-69000	69000-70000	70000-71000	71000-72000	72000-73000	73000-74000	74000-75000	75000-76000	76000-77000	77000-78000	78000-79000	79000-80000	80000-81000	81000-82000	82000-83000	83000-84000	84000-85000	85000-86000	86000-87000	87000-88000	88000-89000	89000-90000	90000-91000	91000-92000	92000-93000	93000-94000	94000-95000	95000-96000	96000-97000	97000-98000	98000-99000	99000-100000		

UN70-LCAP

URBAN DEVELOPMENT IN 1970 VS. LAND CAPABILITY

FIGURE 13

SCALE 1:100,000



CANADA - U.S.