

ACKNOWLEDGEMENTS

There are countless people to whom the author is greatly indebted and this acknowledgement is but a token of expression of gratitude. To the Department of City Planning, who encouraged and directed my efforts and in particular to Professor Kostka, head of the Department of City Planning and Professor M. Carvalho, whose own insights into regional planning were of great value in assisting me to formulate ideas pertaining to this topic.

This work draws heavily upon studies carried out previously by others. Without the access to the works of others in the field of city and regional planning, this thesis would have been impossible. A general thank you is being accorded to all the others who helped in the compilation and preparation of this thesis.

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PREFACE

In recent years the topic of regional planning and regional disparity is much discussed at governmental and other levels. The term region appears to be the by-word of the day and regional planning is being contemplated at various levels of government and at various levels of business and private organization. It is, therefore, necessary to have a clear understanding of what is meant by the terms region, regionalism, regional planning, etc. that are so freely used by everyone these days. This thesis attempts to clarify the notion of regional planning and especially as it applies in the provincial government context in the Province of Saskatchewan. It is hoped that this analysis will contribute to regional planning theory in general, but in particular to regional planning in the Province of Saskatchewan. By obtaining a proper understanding of regional planning it is hoped that the government and the other organizations involved in regional planning will be able to establish an acceptable and effective regional planning body in the province. This work draws heavily upon the work carried out by others and it would have been impossible to write this thesis without building upon the information and data collected and written by other people, both in the fields of regional planning and in other disciplines.

Many readers will, undoubtedly, disagree with some of the conclusions arrived at, however, it is hoped that these conclusions will make them aware that there are other methods of procedure and choice is necessary to determine methods to be used in carrying out studies, analyses, etc. in regional planning.

Undoubtedly some readers will find a lack of clarity or the existence of professional jargon in some passages in this thesis for which the author humbly apologizes. It is, however, hoped that the communication is clear enough to have the general ideas and notions of this theory understood.

CHAPTER I

THE REGIONAL PLANNING PROCESS

It is the intention, in this chapter, to discuss the regional planning process, the traditional concepts of regional planning and some current developments in regional planning in order to give us some awareness of what "Regional Planning" entails. It is admitted that this chapter barely touches on this vast subject, however, it was felt necessary to explore this matter to some extent in order to be aware of what appears to be happening in the regional planning field.

The Notion of Regional Planning:

The notion of planning has itself been going through an evolutionary development. There appears to be a considerable shift taking place from the static "plan making" planning to the more dynamic "process" of planning. This shift is evident in the vast amount of research taking place in the field of city planning and in other related fields.¹

¹ This shift was explained by Donald Foley as one from a unitary approach to planning to an adaptive approach. See Explorations into Urban Structure - Webber, M., Dyckman, John; (Philadelphia, University of Pennsylvania Press, 1964), p.p. 57 & 58.

One of the prime concerns of this research is to identify the notion of planning and to find out exactly what operation is being performed when one is planning.² Although planning is an elusive concept and means many different things to many different people, common elements of the planning process are now being identified. Some of these are the, decision making,³ the context⁴ within which the planning process is being conducted, the wholeistic approach⁵ used in the planning operations and many other important aspects that are too numerous to mention.

In his doctoral thesis, Dr. John E. Page, S.J. concluded that planning is basically a differentiating-integrating process with possibly more emphasis on the integrating aspect. The study also showed that planning is closely related to decision making; and the context within which these operations are taking place, is also an important aspect of the process. The study showed that planning is taking place at various levels and that a planners awareness and horizon must be wider than the immediate context within which his concern lies. This is primarily due to the inter-

² For further study of this matter refer to John E. Page, S.J., The Development of the Notion of Planning in the United States 1893-1965 Ph.D. Dissertation, University of Pennsylvania.

³ op. cit. p.p. 227.

⁴ op. cit. p.p. 289 -290.

⁵ op. cit. p.p. 279.

relations of planning and decision making at all levels of human operation. The author also points out that the planning process begins with a policy to be implemented, a goal to be sought in the light of a policy or a policy to be pursued in the light of a goal. Strategy with which to pursue the goal in light of the policy must then be devised and implemented. There is a continuing process of decision making involved in carrying out this strategy.

There are many other notions applicable to planning, however, it is felt that the foregoing notions must be kept in mind when discussing or studying regional planning. The above notions appear to operate at all levels of planning and undoubtedly operate at the regional level.

"Regional planning", and the term "Region" appear to be the catch words of our day and the definitions of a region are as numerous as the regional interest groups that are formed or the authors who write on the subject. If anything is to be learned from the analysis of the concept of a region, it is that a region is an extremely elusive concept and often has no more substance than what a person may impute to it.⁶ It may also be found that among regions that do

⁶ For additional information, please refer to U.S. National Resources Committee, Regional Factors in National Planning (Washington 1935) p.p. 149.

exist, there are considerable differences in size, character and purpose and it would be going far beyond the limits of present day knowledge to assert that there is a common set of general principles which prescribe how regions are to be organized and administered for the purposes of effective planning.

When a region is being defined for planning purposes, there are a number of considerations that must be taken into account. Some of these are the purpose of the planning operation and the context or scale of the planning operation. An analysis of regional planning reports shows us that generally two types of regions are chosen for planning purposes. These are uniform or nodal regions.⁷ Nodal regions are used chiefly for city planning purposes, whereas uniform regions are used for resource development planning. Another important region for planning purposes is the river basin.⁸ This type of area is most suited for planning the utilization of water, however, it may not be suitable for

⁷ The key concept underlying that of a nodal region is that society organizes itself spatially. Organization implies dominance or control. Dominance suggests a center of focus from which influences emanate over a surrounding hinterland. The focal point and its hinterland form a nodal region. This is a different regional concept from that of a uniform region which ideally refers to an area similar in certain respects in all of its parts.

⁸ Patrick Geddes refers to river basins as a basis for planning in his book Cities in Evolution and Benton MacKaye refers to river basins in his book New Explorations.

planning the development of other natural resources or of more complex regions of occupancy where men organize their economic and social activities.⁹

Therefore, in order to summarize the notion of regional planning, an analysis of the notion of planning shows that planning is basically a differentiating-integrating process, being undertaken within a context of specific concern to the planner and for the purposes of decision making. The planner is not necessarily the only decision maker or he may not even be a decision maker because the decision making may be done by many individuals, organizations and governments. An analysis of regions indicates that many regions¹⁰ can exist for many various purposes. The region may be another way of thinking of the context within which the regional planning process operates, however, various contexts or regions may be necessary depending upon the purpose intended.

The notion of regional planning does, however, appear to be traditionally reserved for a level between the local level and the national level. In spite of its obvious relevance for development policies, the concept of "nodality" or nodal regions has not played a major role in regional planning.

⁹ The Tennessee Valley is the classic example of river basin planning and development.

¹⁰ Examples of some different types of regions are: geographic regions, topographic regions, climatic regions, economic regions, agricultural regions, etc.

The Traditional Concerns, Goals and Objectives of Regional Planning:

The Question "In what way does regional planning differ from city, town and other types of planning?", can be asked. John Friedman¹¹ explains that regional planning is concerned with the ordering of activities in supra-urban space; that is, any area which is outside the boundaries of urban center. City planning, however, focuses attention mainly on intra-urban space. Friedman goes on to explain that regional planning is concerned primarily with economic problems of resource allocation and development whereas city planning is mainly concerned with physical land use and design problems.

Keeble¹² explains what he feels are the main concerns of regional planning. Keeble states that regional planning, as distinct from town and local planning, involves primarily the selection of some communities, rather than others for change of growth, the general determination of locations for large non-urban uses, and the working out in general terms of a satisfactory transport network rather than specific selections of particular sites for particular uses. He goes on to describe this more fully by saying that

¹¹ John Friedman - Regional planning as a field study - JAIP, August 1963.

¹² Lewis Keeble, Principles and Practices of Town and Country Planning, The Estates Gazette Ltd., 1952., p.p. 40.

regional planning is mainly concerned with (1) the balancing of population and employment so as no daily mass movements of population to and from work are necessary, (2) the improvement and nationalization of transport routes to take best advantage of existing facilities and to make the most effective use of the resources available for construction improvements, (3) the strengthening of patterns of service centers in order to give the majority of the population concerned a reasonable accessibility to all grades of services and (4) to locate large non-agricultural uses of land in open country in such a way as to make the best use of natural resources.

Friedman's concern is clearly economic whereas Keeble is concerned with the ordering of activities. There are undoubtedly many other "traditional" concerns voiced by others; however, the above views give an indication of the concerns of regional planning in the past.

A specific statement on the desirable goals and objectives of regional planning is impossible to generalize because this varies with the regions of concern, the purposes for which planning is taking place and possible other reasons. The most general statement that can be made with regards to goals and objectives is to influence social, economic and physical development of a region through government or private action. It follows, therefore, that an

important function of regional planning, if it is to effect development, is to achieve a high degree of consensus among the men in decision-making capacities, the various levels of organization in government and others with vested interests in the area; and to facilitate agreement among them to take co-operative action on common problems. This must be based on a provision for adequate information and understanding.

The goals for regional planning purposes can best be formulated when they come to be identified during the planning process. Past Canadian and American experiences make it possible to identify some of the traditional goals. Some of these traditional goals are:

- (1) A strategy for growth. The main focus of regional planning in this context is to devise strategy for growth within a region;
- (2) The protection of land. This focus of regional planning arises from an attempt to regulate land use within a region;
- (3) To establish a more desirable resource use and environment.

Generally, in order to be effective, the regional planning process must follow certain principles of ecology. The balancing of all elements in the plan is desirable. In the past, however, regional planning has been biased mainly toward physical and land use planning or towards economic

aspects. Social or human goals were generally secondary. In order to include meaningful goals and objectives, therefore, it is desirable to establish a relationship between those concerned with regional planning and the people concerned or affected by the proposed plans. One of the classic examples of regional planning that did attempt to consider the objectives of the people was the Tennessee Valley Authority in the United States.¹³ The lessons learned from this project are probably applicable to all types of regional planning.

Some Functions of Regional Plans:

The question "What purpose or function does regional planning perform?", may be asked. Even though regional planning can undoubtedly perform many functions, and analysis of regional plans may be identifiable functionally as (1) advisory, (2) restrictive, (3) co-ordinative and (4) developmental or possibly combinations of these.

Advisory¹⁴ regional planning bodies exist in many

¹³ David E. Lilienthal: T.V.A. - Democracy on the March (New York, Harper & Brothers Publishers, 1944).

¹⁴ The Regional Plan of New York and its Environs, for example, is sponsored by an unofficial, privately supported organization trying to guide some 100 municipalities in three states by illustrating where shops, residences, industries, etc. should be. In England and Wales, regional plan committees of various kinds were organized for joint planning schemes, but though they were official, they were largely advisory in character. The committees were content to present "ideal" goals rather than operative programs.

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countries and they may be either official or unofficial. By not having executive powers, their primary function is largely to provide inspirational guideposts for the decision makers. The effectiveness of such plans depends upon the eloquence of the spokesmen and the magnetic drawing power of the plans.

A restrictive plan generally brings into play compulsive powers to prevent unwise industrial settlement, deafforestation, deruralization, or misplaced developments of one sort or another. The restrictive plan presumes that if you lay down what cannot be done, you bring about what should be done. Some of the tools available to enforce this type of plan are zoning, permission to locate industries, subdivision controls or manipulation of tax powers. In general, restrictive plans may be partially effective, however, they should be part of a broader effort in which restriction is one, but not the only device.

A co-ordinative plan attempts to rationalize the projects of a series of affected jurisdictions. It is generally a tool of municipalities in development areas where expansion has made co-operation essential. Whether or not co-ordinative plans win the support of the jurisdictions involved may depend on the extent of the pressures and how

critical the needs may be.¹⁵

Probably the most important and potentially the most constructive regional plan is a developmental plan providing for an actual major improvement.¹⁶ These plans may be immediate or long range and generally the projects not only develop the natural resources, but also may alter the lives and ways of society, inspire secondary industries, improve trade, improve health, or accomplish many other objectives. This type of plan may also have political, social and economic consequences including an alteration of the relationships between government, private investment, local agencies and people, and have other unidentifiable impacts.

Another type of plan that is gaining rapid popularity is the "Policies Plan". This type of document outlines broad policy decisions made to achieve stated future objectives.

¹⁵ If, as in Toronto, there is not enough water or there is a critical drainage problem, co-ordinating of functions will more readily be agreed to. But, if as in New York, or other cities where co-ordination may unfavourably affect a taxpayer's purse, pride or politics, there is less chance of winning an accord. Co-ordination requires consent and consent follows out of self-interest, fear, crises and, in some cases, a concern for the public interest.

¹⁶ Examples of this type of regional plan are harnessing the Volta River in Ghana, control of the Jordan River in the middle east, and the development of India's Damodar Valley.

Current Developments in Regional Planning:

Regional planning in the past has been concerned primarily with economic and physical matters. The leading policy-making professionals whose activities bear on development policy have been economic planners and physical planners.

The economic planners, have in the past, concentrated mainly on the process of national economic development planning, the key features of which are the formulation of economic objectives, the preparation of the budget for the public investment sector and the development of appropriate monetary, credit, fiscal, and exchange policies and controls. In mixed economies, there is also a policy for the encouragement of the private sector, including efforts to encourage new and advanced techniques, better and fuller utilization of existing resources, exploration for new resources, etc. The emphasis is generally on levels of income, consumption, output, investments and employment. The location of some public projects; such as, roads, harbour installations, railroads, airports, etc. are occasionally indicated. The plan generally assumes an "optimum" location pattern. There is rarely an examination of locational factors or regional relationships.

On the other hand, the approach represented by the physical planner generally places emphasis on the spatial dimension when planning for urban communities, metropolitan

areas, village development, etc. The responsibility of the planner is generally to organize the physical environment to serve accepted development goals or to accommodate different economic and social activities. Usually his job is to secure agreements on goals of development, to determine, through surveys and other techniques, what kind of development is likely to occur or is being sought, to arrange for the most satisfactory relationships of land uses and services in order to accommodate, or to attract the desired activities, and to help formulate control mechanisms to ensure that future development proceeds along satisfactory lines.

Neither the economist's nor the physical planner's traditional approaches appear to be fully adequate to cope with some of the formidable problems encountered in regional planning. There is, however, in planning schools and in some planning agencies, a recognition that planners training and activities must be inter-disciplinary. There is beginning to be increased collaboration between general planners and specialists; such as, architects, engineers, geographers, etc. in an attempt to cope with the magnitude of the problems entailed in regional planning and development.

Current regional planning literature appears to stress the "wholeistic" approach to the planning process if planning is to be meaningful and effective. Unfortunately, some schools in regional science are tending to get divorced

from reality in their attempts to be "objective" and "scientific" when formulating regional science theories.¹⁷ This unfortunate tendency in regional planning research will undoubtedly have to be rectified if an acceptance of regional planning theories and ideas is to be maintained on a large scale in the future.

¹⁷ Professor Anthony Adamson made the following statement that may serve to elaborate this point:

"Regional planning is often surrounded by a mystique. It can be of extraordinary complexity, quite beyond the understanding of the public. I do not believe that a single member of a single planning board in Canada, if he attended a lecture in Philadelphia given by a member of the Regional Science Foundation, would come away with any understanding of what had been said, what they were after, or what the computer did. Certainly as a professor of town planning, I went to a lecture and did not understand a word for 55 minutes."

Professor Anthony Adamson; How to Make Regional Planning Work, Vol. XI, No. 4, Community Planning Review.

CHAPTER II

URBANIZATION AND SERVICE CENTERS

The intent of this chapter is to discuss the trend towards living in urban centers and communities that is prevalent throughout the country. This phenomenon is one of increasing concern to governments and regional planning. In addition to the effects of urbanization on service centers, the functions of agricultural service centers and their importance to regional planning will be discussed.

Urbanization in Canada:

Canada is increasingly becoming more urbanized over the years.¹ The distribution of population between urban and rural areas has changed dramatically in the last half century. Fifty years ago the first national census of the country's basic resources² showed that sixty percent of Canada's population was rural and forty percent was urban. The 1956 census³ figures, however, indicate that sixty-six percent of

¹ The term urbanization tends to be somewhat misleading because it means different things to different people. The most commonly accepted definition of urban areas are areas in cities of over 100,000 population (Dominion Bureau of Statistics measure).

² From Dominion Bureau of Statistics census figures.

³ From 1956 census figures - Dominion Bureau of Statistics.

Canadian people were classified as urban and thirty-four percent were classified as rural.⁴

There has been a steady trend toward larger centers.⁵ The Gordon Commission⁶ forecast a further intensification of this trend. The report forecast that by 1980, eighty percent of Canada will be urban and of the remaining twenty percent, only nine percent will be rural farm.

This changing population pattern is a reflection of certain basic trends in the country's economic and social development. Some of these trends are: intensified and diversified development of resources, the growth of service industries, changes in manufacturing processes, the expansion of trade, the demand for improved social services and the increased productivity and mechanization in agriculture. These converging and inter-related forces are built on a structure of modern technology releasing such urbanizing forces as the automobile, the airplane, automation and atomic energy.

⁴ Approximately one-half of the people classified as rural were classified as rural-non-farm, which includes daily commuters from town and country.

⁵ About forty percent of the Canadian population lives in metropolitan areas - D.B.S. census figures - 1961.

⁶ A royal commission headed by W. Gordon to study financial problems in Canada - 1962.

The Impact of Urbanization on Service Centers in the
Prairie Provinces:

One-half of all Canadians live either in small service centers of less than 30,000 population or are directly dependent on them for a large portion of their goods and services.⁷ The prairie provinces in particular contain a variety of agricultural service centers. This area has, however, changed dramatically over the past twenty years. There are now fewer farmers, but there are larger mechanized farms requiring specialized kinds of goods and services. The use of the automobile has tended to make rural people less dependent upon their local trade centers for these goods and services, even when they can be supplied locally.

In Western Canada particularly, there has been much concern with maintaining a satisfactory standard of living for some farm and small-town residents. Concern has been voiced numerous times with regard to the future of the small trade centers which one finds scattered throughout the countryside. The centers are important focal points for social and economic activity in the area. Besides being the residences for many, they are places for social attraction, and cultural fulfillment for the people of town and country.

⁷ The Prediction of Trade Centre Viability in the Great Plains - G. Hodge, Vol. 15, Regional Science Association Papers.

Unlike metropolitan complexes, however, some of these trading centers cannot expect to grow. Some have disappeared and others seem to be facing the same fate.⁸ Not all types of service centers were affected similarly over the years; some small centers with populations of less than 300 accounted for the bulk of the decline,⁹ whereas a number of large centers, those providing a wider range of services over a wider area actually grew. Thus, in the prairie provinces, there are significantly more larger service centers than a decade ago and fewer smaller ones.¹⁰

As elsewhere in North America, the people of the Canadian prairies are of various ethnic origins. Although they are working together to develop their chosen country, the patterns they have brought with them are reflected in the service centers and the surrounding service areas they originally settled.¹¹ Therefore for historical reasons, communities differ widely not only in size but in social structure. Cultural factors have to be superimposed on

⁸ An example of this is the Village of Foxwarren in Manitoba which has asked to be dis-incorporated.

⁹ The Prediction of Trade Center Viability in the Great Plains - G. Hodge, Vol. 15, Regional Science Association Papers.

¹⁰ The Prediction of Trade Center Viability in the Great Plains - G. Hodge, Vol. 15, Regional Science Association Papers.

¹¹ An example of this is the Town of Gravelbourg in Saskatchewan. This service center contains people of predominantly French origin and the town has a distinct French culture.

economic and geographical aspects in order to understand the dynamics of these communities.

Therefore, the prairie area is composed of numerous communities of variable size, some growing, some remaining static and some declining. This phenomenon is due primarily to changing needs of the people in the area, technological change, increased mobility and undoubtedly many other unidentifiable factors. There are common effects to the declining communities; such as, loss in population, increase in the number of older inhabitants and reduction in the number of business establishments. They may contain poorly maintained buildings, some of them no longer in use. The fate of these declining communities is a concern to the people living in them and to the various levels of government throughout the country.

Service Centers and Population Changes in Saskatchewan:

The Province of Saskatchewan is highly developed agriculturally but even though great strides have been taken in the past few years in industrial development such as potash and oil exploration, the province is still relatively immature industrially and its economy is highly dependent upon agriculture. Therefore service centers in the province, large and small, are geared primarily to the needs of the farm people. The service center is the location of storage and shipping facilities upon which the farmer depends to

market his produce. It is also the place where he purchases the goods and services needed to carry on production and to feed and clothe his family; the place at which he pays his taxes, educates his children, goes to church, etc.

The Province of Saskatchewan, even though it has a relatively low population density, has a large number of service centers. The total number of incorporated and unincorporated centers of all sizes in the province is approximately 1,500. According to the 1966 census only one-third of these centers have a population of over 100.

In Saskatchewan, primarily because of farm consolidation since the 1950's, there was a reduction of the rural population by two percent per year.¹²

Statistics¹³ indicate that between 1951 and 1966 the rural population of the province declined from 470,000 to 394,000. During this fifteen year period, cities grew by nineteen percent, towns increased by 18 percent and villages grew by one-half of one percent.¹⁴ Smaller service centers, such as hamlets, have undoubtedly lost population and some have disappeared entirely.¹⁵ Between 1961 and 1966, 198

¹² A Development Plan for Esterhazy, Saskatchewan - Department of Municipal Affairs, 1965.

¹³ Statistics from the Dominion Bureau of Statistics.

¹⁴ Cities, towns and villages refer to service centers incorporated as such under the Saskatchewan Municipal Act.

¹⁵ A hamlet is an unincorporated service center governed by the Rural Municipal local government councils. The province contains 295 Rural Municipalities and 10 Local Improvement Districts.

villages (57 percent of the incorporated villages in the province)¹⁶ lost population. Of the 131 incorporated towns in the province, twenty had previous populations of less than 1,000.¹⁷

These population changes have undoubtedly changed the need for central services and the functions of the service centers in the province.

Agricultural Service Center Functions:

It is a generally accepted fact that service centers are born because of the economic and social needs of the people. They grow or decline in response to the changes in pattern of the peoples needs.

Some of the functions of service centers can be identified by general observation or by the experience of living in a rural service center. The farmer, for example, normally markets his grain, buys his groceries and receives his mail at the center most accessible to his farm home. Typically, in the majority of cases, this center is small with few residents and a minimum of services. The people who use its services are normally those for whom there is no

¹⁶ This data was obtained from the Community Planning Board of the Department of Municipal Affairs. List of Village Population, 1961-66.

¹⁷ Saskatchewan Department of Municipal Affairs - List of Town Population, 1961-1966.

closer center. In order to obtain specialized services such as buying machinery or parts for machinery or for buying specialized clothing, the farmer may have to travel a greater distance to another service center supplying the services. At these larger centers he finds virtually all the services available in the smaller center plus an additional number. This added range of services draws customers not only from the centers in the immediate area but from a number of surrounding areas each served by smaller centers. Thus, step by step relationship holds true for centers from the smallest to the largest and is expounded in a theory set forth by the German geographer, Walter Christaller.¹⁸

A service center is not only a central place, therefore, but has a definable service area which is closely related to it. The service centers and their trading areas differ spatially and differ in the quality of services supplied in the area.

One of the indications of the differences in function among service centers is the numerical distribution of various kinds of retail establishments. The number of retail establishments in the province vary by category.

¹⁸ Christaller's Central Place Theory is discussed more fully in Appendix A.

The key to the functional relationships of service centers therefore lies in the nature of human wants and the economic and technical considerations involved in satisfying them. The service centers therefore, develop in response to factors of supply and demand. Important technical considerations involved in serving the rural population relate to the mobility of the consumers on one hand and the transportation of goods on the other. Because buyer and product must be brought together at the point of sale, transportation and consumer mobility play an important role in the system of service centers in the province.

A center's trading area is not a precise concept. It is derived from the market area of the individual business enterprise, the area from which consumers come to buy a particular class of commodities. It generally corresponds to the average of several market areas commanded by those services available in a given center which are not available in centers of lower rank. This area will be smaller or larger depending on the demand and supply characteristics of the products involved. The characteristics of the trading area are, however, dependent upon many factors. Some of these are population and income of the residents living inside the service areas, physical resources of the areas

and political and administrative boundaries within the areas. As well, transportation networks and consumer mobility also have an effect on trade area patterns.

Therefore in summary, one of the basic factors which gives rise to functional differences in service centers lies in the economic necessities in setting up a retail establishment. The kind of product sold, the character of demand for the product and other considerations combine to dictate a characteristic size of operations for each retail enterprise. Each must, therefore, seek a location which commands a certain level of demand. For a grocery store, this location may be a village; for a machinery dealer, it may be a large town.

The factors which determine the characteristic sizes of the range of retail enterprises also tend to determine the diversity of services which will be available in any given center. The range and variety of services provided will increase as the level of demand represented by the center and its trading area increases. The range of services, therefore, is a useful measurement to apply in classifying service centers.

The Service Center and Regional Planning:

The urbanization process and the related emergence and decline of service centers is an important element in regional planning. The policies for development that may be formulated by regional planning must reflect the welfare of these centers and the welfare of the people living within them. The emerging patterns of growth, the viability of service centers, their interrelationships, the possible impacts of proposed policies, etc. must be fully investigated by those responsible for regional planning. Service center study is of primary importance not only for comprehensive developmental planning but for land use, resource development, economic or other types of planning.

CHAPTER 111

THE STUDY OF A REGION IN SASKATCHEWAN

In this chapter a specific area of Saskatchewan will be examined in order to determine what is happening in the area with regards to service center change, population change, etc. The objective is to determine the validity of Central Place theory as a framework for regional analysis and in general to identify some of the problems that may be encountered by regional planning in the province.

The Choice of a Study Region:

It was mentioned previously in this study that there has been an essential separation of the regional planning approach primarily between resource-oriented regions on the one hand and city-oriented or nodal regions on the other. In Canada numerous attempts were, however, made to develop systems of regions (or areas or zones) of different scale which would assist in the solution of problems in economic development. In most cases the systems¹ were created in response to a single objective.

¹ An example is the accumulation of consumer data for use in marketing, labour force employment studies for cities or larger towns, etc.

In a White Paper in 1945, the Federal Government committed itself to a policy of high employment levels. At the same time it was recognized that economic planning for high employment levels was not adequate and recognized that because of regional differences in activity, unemployment could be at high levels regionally while employment could be at high levels nationally. To provide basic data which would permit analysis of long-term issues and which would provide a more complete, if composite picture of the economy, it was decided to devise a system to economize zones which could embrace city or cities but which were supra-urban in size.

The system that evolved is known as the D.D.P. Geographic Code² and was since adopted by several provinces to deal with various regional developments. Though its approach may be simple and pragmatic, the D.D.P. Geographic Code does present a practical framework in which the economy may be studied and in which regional planning could be organized and effected.³

It was admitted by its inventors that this system of geographic divisions possesses inherent difficulties.

² Economic Zoning of Canada and the D.D.P. Geographic Code, Government of Canada, Department of Defence Production, Economics and Statistics Branch, Ottawa, 1953.

³ For further reference to the D.D.P. Geographic Code refer to Economic Geography of Canada, Camma, Weeks and Sametz (Macmillan, 1964).

They raise their own questions concerning the validity of units, the permanency of the general pattern, its adherence to administrative boundaries and so on.

The Geographic Code has, however, tried to accommodate significant aspects of location and Central Place theory, concepts of national regions and areas for which statistics may be derived. Without critically discussing the system as applied to Saskatchewan, it may be stated that while there may not be complete agreement with the absolute definition of the units, the code exhibits a reasonable appreciation of the functional organizations of the province and at the same time gives clear recognition of major factors, physical and socio-economic, which create and characterize the province. Thus with some modification, it is believed that these regions and zones may provide a valid basis for planning regions in Saskatchewan.

The Province of Saskatchewan is divided into six of these regions with boundaries coinciding with the Dominion Bureau of Statistics census division boundaries. The area chosen for study in this analysis is the D.D.P. Code Region No. 71 called the "Saskatchewan Palliser Region" (see Fig. 2 Appendix B). The boundaries of this region correspond quite closely to the physiographic features of this area and approximately encompass the Palliser triangle in southwestern Saskatchewan. The boundaries correspond

with census divisions 3, 4, 7 and 8. These census boundaries also correspond to rural municipal boundaries. This area will from herein be referred to as "the study area" or "the Palliser Region" and will be the area of analysis (see Fig. 7 Appendix B).

The Palliser region or the study area lies in the southwestern corner of the province. The area is primarily agricultural with grain growing and ranching being the primary agricultural enterprise. The area does, however, have some mineral, oil and gas activity in it. The south-eastern corner or the Cypress Hills area is mainly ranching, whereas the northern portion contains some of the best grain growing areas of the province. This study area is thought to contain many of the problems common to the entire province.

The Application of Christaller's Central Place Theory:

The theoretical base for this study is Christaller's Central Place theory.⁴ Whereas there is much literature in the annals of geography pertaining to this subject, it is generally accepted that the theory, or portions of it, is

⁴ A detailed explanation of Christaller's Central Place theory is given in Appendix "A". In general, this theory is based on the notion that a definite hierarchy of service centers does exist in a region, and that the number and distribution of service centers is according to some basic principle of distribution. This principle is one of interlocking, hexagon-shaped trade areas (see Fig. 1, Appendix B).

valid especially in agricultural areas of a more or less homogeneous nature such as the study area is believed to be.

The Hierarchical Classification of Service Centers:

Christaller's Central Place theory maintains that the services a center provides, both for its own population and surrounding tributary area, should determine its position in a hierarchy rather than its size or governmental status. In determining a hierarchy, one must take into account the essential function of the urban centers and the institutions concerned with their performance. The establishment of a hierarchy may therefore be regarded as providing the framework upon which other studies may be conducted.

In order to strive for increased objectivity, a functional indices technique for measuring centrality was employed in accordance with the following description.⁵ It was assumed that the Palliser region was a closed system⁶ and the degree of centrality or focality of each function varied with the total number of outlets of that particular

⁵ This method was first used by Barry and Garrison in the United States for their studies in Wisconsin. This method has now been employed by other geographers studying central places.

⁶ It is acknowledged that there are no closed systems as all systems are interrelated on the entire planet. The planet itself is part of a system. This assumption was made to facilitate calculations.

function. For this study, commercial functions or services were used.⁷ Therefore, the greater the total number of outlets for any particular function, the lower will be the degree of focality of each outlet since satisfaction of demand is spread over a number of outlets. Since the location coefficient reduces all functions to a common base, each functional type is immediately comparable in an objective fashion.

Multiplication of the relevant location coefficient by the number of outlets of each functional type present in a community gives a centrality value for each function within a service area. A functional index for a service center was derived by the addition of the total centrality values attained for that community. Centrality indices were calculated for the commercial and professional services in the study area and a functional index was also calculated. (This is outlined in Table 2 of Appendix B).⁸

⁷ It is acknowledged that functions other than commercial functions add to centrality, however, it was felt that commercial functions gave a significantly accurate representation of a region. See Brian J. L. Barry and William L. Garrison - "A Note on Central Place Theory and the Range of a Good" Economic Geography - Vol. 34, p.p. 304-311, 1958.

⁸ This method of functional indices was employed by W.K.D. Davies "Centrality and Central Place Hierarchy", Urban Studies, Vol. IV, No. 1, Feb. 1967, University of Glasgow.

The data required for this classification were obtained from Community Data Sheets compiled by the Saskatchewan Department of Industry and Commerce in 1968. In centers where Community Data Sheets were unavailable, the types and total numbers of commercial functions were obtained from the Saskatchewan Telephone Directory on the assumption that the majority of the commercial establishments in each service center would have a telephone and therefore be listed in the directory. A comparison was made between the data obtained from the telephone directories and the data obtained from the Community Development Sheets. A very close correlation was found to exist and therefore the degree of confidence in using this method appears to be very high.⁹ Very small service centers containing one or two services were classed by themselves as the last group in the classification. They were found listed in the Directory of Hamlets - 1969 published by the Department of Municipal Affairs.

⁹ For detailed methodology for calculating location coefficients, centrality indices and functional indices, see Appendix B. The correlation between the Community Planning Sheets data and the telephone directory data was 90%. (i.e., 90% of those commercial establishments listed in the Community Data Sheets were also listed in the telephone directories.)

Results of Hierarchical Classification:

It became apparent that two centers - Moose Jaw and Swift Current - had much higher levels of service than the rest of the service centers with functional indices¹⁰ of 1776 and 1203. (See Figure 4, Appendix B.) The nearest center to these two was Shaunavon with a functional index of 415.

The distribution of centers in the study area clearly followed a pyramidal form. It became apparent that the service centers in the Palliser region could be grouped into five distinct hierarchies. (See Figure 4, Appendix B.) There were two service centers in Class A, seven in Class B, 18 in Class C, and 62 in Class D. (See Table 1, Appendix B.) The fifth Class E was used to classify those very small centers that were not classified by the functional index method due to the very small nature of their service. There

¹⁰ The functional index represents the summation of centrality indices of the various functions in a center. For example, the functional index for Moose Jaw, which is the highest for the service centers in the study area (1776), represents the highest sum of centrality functions for any center and it is therefore the highest order center, functionally, in the study area. Other centers in the study area with very low functional indices (i.e., Spring Valley with a functional index of 1), represent very low order centers. All centers with functional indices of below 1 were classed separately because of their low degree of centrality.

were found to be 167 communities that fall into this class. Figure 3 in Appendix B illustrates the hierarchical classes and spatial locations of the five classes in the classification. A more detailed description will be given of the functions of the different classes of centers in another section of this chapter.

Service Center Systems in the Study Area:

Another major feature of Christaller's Central Place theory is the spatial distribution of service centers in each specific hierarchy. Christaller maintained that all service centers form an interlocking hexagonal arrangement spatially (see Appendix A and Fig. 1, Appendix B). The spatial arrangement of service center systems of Class A centered systems and Class B centered systems are outlined in Fig. 8 and Fig. 9. Attempts to link the other classes of service centers in hexagonal systems were unsuccessful. This is thought to be due to the initial location of these service centers being along transportation lines and therefore are distorted from the theoretical hexagon location.

The following is a description of these systems and what appears to be taking place functionally and population wise:

Class A Centered Systems:

The study area contains two major trading centers that were classified as "Class A" in the hierarchical classification. These are Swift Current and Moose Jaw. The city of Moose Jaw is approximately 100 miles from Swift Current and had a population of 33,062 in 1967 whereas Swift Current had a population of 14,288 in 1967. Moose Jaw's average yearly population change was +2.22% per year from 1950 - 1967 whereas Swift Current's population change was +6.48% per year over the same period. This indicates that Swift Current is growing more rapidly than Moose Jaw and this is undoubtedly due to the close proximity of Moose Jaw to the provincial capital of Regina (45 miles).

It can be generally stated that Moose Jaw and Swift Current contain a certain number of all the commercial and professional functions used in the classification. In addition to the more common services found in the other service centers, Moose Jaw and Swift Current contain certain services not found in these other centers. Some of these specialized services are book and stationary stores, chiropractors, egg grading stations, hatcheries and wood working shops. In addition to these services, Moose Jaw contains 147 services classed as "others", whereas Swift Current contains 73. These services consist of specialized services not common to the other service centers. Some of these are oil

field maintenance services, road contractors, wholesales, etc. It is these specialized services that make Moose Jaw and Swift Current unique.

The trade area boundaries of these specialized services can be estimated to lie within the boundaries outlined in Fig. 8, Appendix B. These boundaries are, however, very approximations and are approximately 50 miles radius from the two centers.

There are five "Class B" centers that can be identified as satellites of Swift Current. They are: Eston, Leader, Gull Lake, Shaunavon and Gravelbourg. The Town of Maple Creek is also a "Class B" center, however, it is thought to be a satellite of Medicine Hat in Alberta instead of being a satellite of Swift Current. These five centers clearly fall within the Class B classification and provide approximately equivalent services in the Swift Current tributary area. (See Table 5, Appendix B.)

On the basis of theoretical considerations, there should be at least one more Class B service center to complete the Swift Current satellite system. Logically, this center should lie in the Chaplin - Lucky Lake - Central Butte triangle, but inspection reveals the absence of any qualifying center in this area. The best approximation to a Class B center is Class C center of Herbert. It is closely associated with the Class C center of Morse nine miles to

the east and together they perform the functions of a Class B center. Thus the Herbert - Morse center may be thought of as forming the sixth satellite center of Swift Current.

The Swift Current System thus, more or less, fulfills theoretical expectations by displaying six Class B satellite centers. A comparison of the actual location with the ideal Christaller hexagon (See Figure 8, Appendix B) shows the centers of Leader and Eston to be much farther north-west than the theoretical location. This is thought to be due mainly to the masses of sparse population, sub-marginal land and the effects of the South Saskatchewan River in this direction. The two centers of Herbert - Morse and Gull Lake are much too close to the system center. This compression is probably due to the location of large areas of poorer land east of Morse and west of Gull Lake. These areas are used primarily for ranching purposes and these two centers are the transition points. The barrier of the South Saskatchewan River also has a flattening effect of the Swift Current tributary area.

Within the confines of the area under study, there are three Class B centers attached to the Moose Jaw system. Two of these, Gravelbourg and Herbert - Morse have already been mentioned and the third is Assiniboia.

The population growth rates of these Class B centers appear to be an average of 2 - 3 per cent per year.

(See Table 5, Appendix B.) The centers with the slowest rate of population rise are Herbert - Morse with an average growth of only +1.5% per year from 1950 to 1967 and Gravelbourg with +2.21% per year. The fastest growing center appears to be Shaunavon with a +3.39% growth per year over the last ten years. These growths are only half of the growth rate of Swift Current (+6.48%) and about equivalent to that of Moose Jaw and thus reinforcing the contention that Swift Current is the most rapidly growing regional center of this area.

In addition to those commercial functions found in the lower class centers, Class B centers contain services not found in these centers. Some of these functions are dentists, childrens wear shops, custom tailors, dairy products bars, florists, jewellery stores, mens wear shops, photography studios, shoe repair stores, etc. (see Fig. 6, Appendix B). These service functions have a larger service area than those services found in the smaller service centers. An approximation of these service area boundaries can be made from Fig. 9, Appendix B. These boundaries are very rough approximations, however, they are approximately 30 miles in radius.

Class B Centered Systems:

If theoretical expectations were to be fulfilled, each Class B center identified in the preceeding section would have six Class C centers associated with it. The

effects of sparse population, uneven distribution of farm land and many other factors cause a variation from the theoretical expectations. It is noted that none of the Class B centers have a full compliment of satellite centers. Fig. 9, Appendix B shows the Class B centered systems and their departure from the theoretical network. Table 6, Appendix B also shows the populations, the population changes, etc. of these systems. It may be noted from this table that all of the satellite centers had a positive population growth rate over the period of 1950 - 1967.

The commercial and professional services found in Class "C" centers, and not found in lower class centers, can be considered as day to day requirements that are not as highly specialized as in Class A and Class B centers. Some of these services are, barber and beauty shops, billiard halls, department stores, doctors, drug stores, insurance agencies, meat markets, plumbing and heating contractors, T.V. and radio repair shops, etc. An approximation of the trade areas for these centers is found in Fig. 11, Appendix B. They appear to be an average of 15 miles in radius from the service center.

Class C Centered Systems:

Table 7, Appendix B completes the description of the center systems in the study area. Villages and hamlets are grouped together under the Class C centers with which

they are associated and Class D centered systems are not delineated.

The effect of the transportation system is particularly apparent in the placement of Class D and Class E centers. (See Figure 3, Appendix B.) One can generally discern that the Class D center and the associated Class E centers are arranged in a straight line along the railroad. This emphasizes the importance of the transportation system in prairie agriculture and the historical development which saw rail lines located prior to the establishment of the centers.

One may also note the decline in population among the small centers in this area. Both Class D and Class E centers have been declining. Of all the Class D centers, 42% appear to have lost population from 1957 - 1967, whereas 83% of the Class E centers have lost population.

The functions performed by Class D service centers can be generally classified as day to day services that are necessary to the farming economy. Examples of these services are, bulk oil dealerships, farm implement dealerships, grain elevators, grocery stores, motor repair shops, hotels and service stations. The trade areas for these service centers are approximated in Fig. 10, Appendix B. They are approximately 10 miles in radius on the average.

Class "E" service centers are primarily grain delivery points. Grain elevators are the most common feature

of these centers, however, some of them contain general stores and service stations.

The Location of Trading Areas:

Boundaries of trading areas cannot always be clearly defined. Where no topographical barrier separates the areas influenced by two adjacent centers, the boundary area may be one of mixed or indeterminate behaviour. Any attempt to establish a line is, at best, an approximation. Local factors involving such things as the relative quantity of services in the two centers, the orientation and condition of roads, ethnic groupings and many other factors may alter boundaries. Hence, trading areas can be mapped accurately only on the basis of detailed local knowledge.

The hierarchical classification and location of centers, however, does permit roughing out an approximation of trading areas. From Christaller's theoretical model, the boundary can be expected to pass through the interconnecting center of lower rank which lie between the two centers. If two lower ranking centers of equal rank lie between, the boundary would logically fall between them. If there are no centers to mark the boundary, then topographical barriers, sub-marginal land, distance, and location of all-weather roads can be considered in fixing boundaries.

Three ranks of trading areas were mapped in this fashion. (See Figures 10, 11 & 12, Appendix B.) These maps

can only be considered as very rough guidelines to be used prior to establishing more accurate boundaries by detailed field investigation. Such an investigation may entail the interviewing of local merchants and the rural populace. The plotting of trade area boundaries using these methods would undoubtedly show an overlap of trade areas for various centers.

Conclusions re: Service Center Analysis Using Christaller's Theory:

It can be generally concluded that the distribution of service centers does to a degree meet general theoretical expectations. This is true particularly for the Class A and Class B service centers and their spatial systems. There is one major satellite center missing from the Class A centered systems, however, two closely located Class B centers (Herbert and Morse) fulfill the functions of this missing center.

In the Class B centered systems there are many absent Class C satellite centers from the theoretical distribution. These are thought to be due to the influence of transportation requirements, the railways in particular, the occurrence of provincial or national boundaries, topographical variations, occurrences of non-agricultural resources such as minerals and oil, etc. Other factors that may tend to combine to produce a disorientation from the

theoretical systems may be variations in agricultural productivity, local leadership, frontier development, etc.

This leads one to conclude that the application of Christaller's Central Place theory to the study of a region should be used with certain reservation. It is primarily useful as a beginning point in the study of an area. In particular, the hierarchical classification of the service centers appears to be important as a beginning point and as a method of comparing functional classes of centers. The theory begins to become invalid when a spatial distribution of service centers is attempted according to theoretical expectations and trading area boundaries are being established. Here again, however, it is thought to be useful as a beginning point from which more sophisticated methods can then be used.

Christaller's theory has been criticized in the past for being a static method that does not take into consideration the ongoing processes of service center growth and decline. Whereas this is a valid criticism, the theory does appear to be useful when studies are being made of particular time intervals. If studies are being conducted to determine emerging growth centers, viability of centers, etc., other methods of analysis must be employed.

Trade Center Viability:

The changes in the population of trade centers noted in the foregoing analysis leads one to speculate upon the viability of some of these trade centers. The question, "What is the future of these centers?", can be asked. "Which ones will continue to grow?", "Which ones will decline?", are questions important to regional planning.

Extensive study of the viability of trade centers in Saskatchewan was made by Professor G. Hodge of the University of Toronto.¹¹ In his studies, Dr. Hodge attempts to develop a quantitative statistical method for predicting the viability of trade centers in Saskatchewan. From these studies he found that approximately 35 environmental factors affect a trade centers ability to survive. By the use of statistical techniques, he developed an "urban density scale" and classified all the incorporated centers in Saskatchewan as either "viable" or "nonviable".

A comparison was made between the results of the hierarchical classification made in this study and Dr. Hodge's "viable" centers outlined in the study area. It may be noted that all centers classed as "A", "B" and "C" are also classed

¹¹ The Regional Science Association Papers Vol. 15, 1965-
The Prediction of Trade Center Viability in the Great Plains-
G. Hodge.

as viable by Dr. Hodge, whereas only 14 of the 62 centers in Class "D" are considered as viable. All of the remaining Class "E" centers were considered as non-viable by Dr. Hodge.

This is thought to be mainly because these centers were established during the "horse and buggy" era and are no longer required in this day of rapid motorized transportation. (Previous discussions show that these centers are used primarily as grain delivery points.) This may lead one to conclude that a definite relationship exists between trade center hierarchy and trade center viability.

Dr. Hodge's research is valuable because it offers an objective method of specifying points of growth and decline within trade center systems in order to facilitate the formulation of policies for regional planning.

Local Government Units in the Study Area:

Local government units in Saskatchewan consist of urban municipalities and rural municipalities. The urban municipalities consist of incorporated cities, towns and villages as specified by the Urban Municipalities Act. They are administered by local councils elected by the residents to provide certain functions. Some of the primary functions of urban municipalities are street construction, fire protection and police protection. Education, however, is administered by school boards elected specifically for this purpose. There are many other functions administered by urban munici-

palties, however, these vary from municipality to municipality and are too numerous to mention.

The study area contains two cities, twenty-one towns and sixty-six villages. These classifications are not necessarily related to the hierarchical classification carried out in this study.

The responsibility of the rural municipalities is to administer matters of local importance and among them, the building and maintenance of rural roads occupies a dominant position. Urban municipalities are not a part of this structure because they themselves are incorporated into towns, villages or cities. Only the communities of the smallest size (Hamlets) have been integrated into the administrative scope of rural municipalities.

A modification of the rural municipal system is provided in local improvement districts. These administrative units do not possess the local autonomy of rural municipalities; their affairs are directly administered by the provincial government. Local improvement districts have been established in areas which are incapable of financing their undertakings as independent municipalities. Boundaries of rural municipalities and local improvement districts for the study are shown in Figure 13, Appendix B.

The rural municipality is a small administrative unit established in the days of the horse and buggy. It

comprises an average area of nine townships and although some amalgamation has taken place over the years, it is still thought by many that larger units may be more applicable to this day and age.

The variation in population among rural municipalities is considerably greater than the variations in area. A great many of the units are steadily losing population. (See Table 4, Appendix B.) The fact that urban municipalities in the study area are gaining population at the expense of the rural municipalities and the fact that the small nine township rural municipalities were established when the horse was the prime mode of transport, leads one to speculate upon the viability of the rural municipalities. The primary function of the rural municipalities is road construction and maintenance. These functions are heavily subsidized by the provincial government. This leads rise to the following questions: Perhaps a re-distribution of functions more in line with today's needs are in order. Perhaps a new form of government such as a regional government may be better suited to administer local government functions. Because of functional relationships between town and country, perhaps local governments consisting of both rural and urban municipalities may be more suitable. These questions require much further detailed analysis and will not be answered in this study, however, they are legitimate problems for regional planning.

Other Administrative Units in the Study Area:

In addition to local government administrative units, the study area contains a number of administrative units used by the provincial government. Although there are too many of these units to discuss¹² in detail, it was felt that some of the units administering primary provincial government functions is warranted primarily in order to determine whether or not one set of regional boundaries may be used by all agencies.

Larger School Units:

ky? The main purpose of the larger school unit is to provide more adequate educational standards for the province. It is a consolidation of the previous school districts into administrative units designed to operate at a higher economic level. Figure 13, Appendix B shows the boundaries of these units in the study area.

The administrative system of the larger school units was originally confined to rural areas and small urban communities of village size or smaller, however, in the course of time it has expanded its scope by adding larger centers. Cities do not participate in the rural - urban

¹² The Atlas For Saskatchewan, 1969 indicates that 24 administrative units exist in the province each with different boundary locations, p.p. 182-185.

larger school unit administration. In a sense, they can be considered as equivalent school units because of their size and pupil enrollment.

The average larger school unit area in the study area is 66 townships or an average of seven times the size of the rural municipalities.

Agricultural Representative Districts:

The agricultural representative districts are administrative areas under the jurisdiction of the Provincial Department of Agriculture. They are units for the purpose of implementing an agricultural extension program designed to raise the general level of agricultural production and farm practice in the province with the objective of improving living conditions and standards of the rural populace through better land use and a greater measure of stability and security in the agricultural economy of the province. Each district is staffed with a graduate agriculturalist who surveys the local conditions of farming in the area and recommends improvements.

The administrative area of the agricultural representative district averages 112 townships or ten rural municipalities. Eight of these districts lie in the study area and the boundaries are shown in Figure 13, Appendix B.

Health Service Divisions:

The administration of health services in the area are related to the types of hospitals located in the different centers. The area has two district hospitals located in Swift Current and Moose Jaw and a number of union hospitals. The boundaries of the union hospital districts are shown in Figure 13, Appendix B. In addition to these boundaries, there are health region boundaries that enclose a larger area.

In addition to the above mentioned administrative units and administrative boundaries, others exist. Examples of this are crop districts, Veterinary Service districts, Electrical Distribution districts, Welfare Regions, Highways districts, etc. The multiplicity and overlap of these districts does present administrative problems, however, it must be kept in mind that the boundaries for these units were located in a manner that the agency concerned can best carry out its particular functions.

The boundaries of the administrative units discussed above were superimposed in order to determine whether a common set of boundaries could be used by all agencies. (See Fig. 13, Appendix B.) It was concluded that common boundaries would not be acceptable for all provincial government agencies. It must also be realized that in addition to these boundaries shown on Figure 13, the boundaries of

approximately 20 other government agencies exist. This fact is supported by studies made by the Community Planning Branch of the Department of Municipal Affairs. They also concluded that it was not possible to devise common boundaries without impairing the functions of the individual agencies. This fact reinforces the contention that a different region may exist for each different purpose and the devising of a regional boundary for all purposes and functions is not practical.

The Economic Base of the Study Area:

is it necessary to use the authority of DCS for
The Dominion Bureau of Statistics figures indicate *this* that the economic base of the Palliser region is primarily *statistical* agricultural. The most south-westerly portion of the area approximately from Mankota through Shaunavon to Leader is mainly ranching, whereas the area in the vicinity of Eston is prime wheat growing land. There is very little mixed farming in this area, however, some does exist. (See Figure 15, Appendix B.)

is it necessary to use the authority of DCS for
The mineral wealth of the region consists primarily of oil and gas fields, sodium sulphate mines, and a Helium processing plant at Swift Current. (See Figure 15, Appendix B.) Clay used in the preparation of china is also mined from the Cypress Hills near Eastend. Sodium Sulphate mines are located north and east of Maple Creek and in the

or not ; or to what advice ?

vicinity of Chaplin.

The largest mineral resource in this area is oil and gas. Large oil and gas fields are located in the vicinity of Shaunavon, Eastend and Gull Lake. Natural gas is processed at Hatton and piped to the various centers in Saskatchewan.

*verified
6/1/50*

The newly completed Gardner Dam and Lake Diefenbaker project has economic potential in future years. Whereas there are some changes taking place in farming methods in other areas of the province due to irrigation, this is not the case in any portions of the study area. Future changes to irrigation farming may, however, provide employment opportunities and perhaps cause growth in some service centers. This possibility appears to be in the distant future and, as yet, no predictions as to which service centers may be affected, or how they will be affected, are possible at this time. This large dam has not, as yet, played a very important part in transforming the economy of the area except for recreation use and power production. This dam along with Cypress Lake in the Cypress Hills Provincial Park are the main recreational outlets for the region, however, smaller lakes such as Clearwater Lake at Beechy and Lac Pelletier south of Swift Current, do offer recreation to the area residents.

The study area is therefore basically agricultural and the functions of the majority of the populace are closely tied to the functions of the area farmers. Although the population movement away from the farms is still quite evident in this area, it is advocated by many people that this movement has now more or less stabilized. Many feel that the farms in the region have now increased to their maximum limits, however, there have been no studies carried out with regards to this matter. The problems of the area fluctuate over the years with the problems facing agriculture and probably will continue for many years in the future.

The Transportation Network in the Study Area:

The functions of a region are closely related to the transportation network. This network is the lifeline along which all goods and services are supplied. The adequacy of the transportation network is often a measure of the functions of an area and need continual improvement to keep up with technical advances and changing conditions.

Railways:

The main line of the C.P.R. passes through the two cities of Swift Current and Moose Jaw and is the railway artery in this area. The majority of the other service centers are served by branch lines. (See Figure 3, Appendix B.) The region is dependent upon the railways primarily for

the shipment of grain. There has been much discussion about the rationalization of the railway network and the abandonment of uneconomic branch lines. The abandonment of some railway lines would undoubtedly hasten the demise of some of the smaller service centers in the region. However, until a more economic method is devised for the transportation of grain, the railways will be an important transportation mode in the area.

Highways:

The Trans-Canada Highway also passes through the two cities in the region and is the main highway artery in the area. All the other service centers and communities are served by other provincial highways and municipal roads. (See Figure 14, Appendix B.) There are improvements being made to the highway system each year in order to serve the needs of the area. In addition to provincial highways, which are financed and constructed by the provincial government, many municipal roads are constructed on a cost shared basis by the rural municipalities. These roads are used primarily to provide all-weather service to the rural population in the area. These all-weather roads link the trading areas to the service centers and perform an important function by providing services to the agricultural economy. (See Figure 14, Appendix B.)

Air Services:

Swift Current and Moose Jaw each have an airport at which limited air services are provided. Whereas these airports do not cater to Air Canada or other large commercial airline, commercial flights are provided by a local airline. Some of the other centers such as Shaunavon and Assinaboia have local airstrips that provide a service to privately owned aircraft.

Undoubtedly, the improvements in the transportation network over the years has contributed to the demise of some smaller service centers. Increased mobility provides an opportunity for the area residents to patronize more distant centers that provide better or more varied services. Whereas an 8 - 10 mile trip may have been the maximum daily trip during the days of the horse and buggy, a 30 - 50 mile trip is its equivalent, time wise, in this day of rapid transportation. This makes many of the service centers unnecessary for the provision of some services. Increased mobility in future years may mean a further centralization of commercial and professional functions resulting in other service centers becoming unnecessary.

Population Trends in the Study Area:

Rural Municipalities:

Of the 76 rural municipalities in the study area, only 7 have indicated a population increase during the study

period. (See Table 4, Appendix B.) The remainder all indicated a substantial decrease from 1950 - 1967. The average decrease of population over this period was 26.23% with an average annual decrease of 1.54%. This decrease is probably due to a decreasing number of farming units and the increasing size of farms primarily because of technological advances in agriculture over the last twenty years. The decreasing rural farm population is a gradual trend and appears to be still continuing.

Urban Municipalities:

The population trends in the 89 incorporated urban municipalities within the study area was already touched upon previously in this chapter. As a broad generalization, it may be stated that the majority of the urban municipalities in the area have registered an increase in population from 1950 - 1967. (See Tables 5, 6 & 7 in Appendix B.) Of the 89 incorporated urban centers in the Palliser Region, only 22 centers registered a decrease in population from 1950 - 1967. This accounts for 25% of the urban municipalities in the region. The urban municipalities in the region have shown a net growth of 21.66% over the 17 year study period for an annual growth rate of +1.27%. This does not quite meet the net loss in population from the rural municipalities over this time period (-1.54%) therefore, indicating a net loss per year of 0.27% for the entire Palliser Region.

The growth rate per year for the various hierarchical classes appears to be greater for those centers in the top hierarchies. The centers in Class A had an average annual increase of +4.35% over the 17 year period; the centers in Class B recorded an average of +3.01% per year; the Class C centers recorded +2.39% and the Class D centers had a 0.62% increase. The centers in Class E had an average annual decrease of -2.43%.

Population increase and decrease is definitely related to the hierarchical classes and therefore to the viability of trade centers. The "rural to urban shift" appears to be continuing in the area and must be one of the prime considerations for regional planning or when considering a strategy for the development of the study area.

Some Problems Facing Regional Development Planning in the Palliser Region:

It is the intent of this section to draw attention to some of the implications and problems that may be encountered by regional planners in the Palliser region. It is assumed that one of the objectives is to formulate a strategy for the future development of the region.

One of the greatest challenges is that of creating and maintaining a satisfactory living environment for the farm and trade center residents of the area. The trade centers are important focal points for economic and social

activity in the area besides being the places of residence for many people.

This study, in addition to others, has shown that many trade centers are declining and may not be viable. This is thought to be primarily caused by increased mobility of the residents. In this day of motorized transport a 50 mile trip is equivalent to a five mile trip during the day of horse drawn transport. The farms are much larger and are mechanized and fewer farmers are required. The question may be asked, "Should some of these centers be encouraged to grow or should they be phased out of existence?" Many of these centers appear to be phasing themselves out of existence without any encouragement. Should there be efforts to ease the burden of the residents of these non-viable centers? Some of these burdens are the closure of business establishments resulting in a loss of investment, loss of tax revenue and loss of employment. Commercial decline may affect population holding power and loss in housing investment. The answers to these questions must be given by the decision makers of the provincial government. It is very difficult for the decision makers to make a policy to deliberately phase out some smaller centers even if it is desirable from the economic point of view. This is "political dynamite".

For the provincial government, trade center decline poses the possibility of closing hospitals, schools and

government agencies. It also may mean changes in transportation patterns and the relocation of highways and rural roads. Policy decisions pertaining to trade center growth will have its repercussions in these areas.

Policies planned to minimize the ill effects of trade center decline on local governments, housing, business investments and on the standard of living of the populace may be necessary. Choices may also be necessary as to which centers should be encouraged to grow in order to better service the populace of the area. This may be achieved by industrial and commercial incentives, federal or provincial aid or other methods. The studies, with regard to trade center viability may be the basis for some of these decisions.

Those responsible for "regional planning" must make decisions pertaining to methods of procedure, boundaries for planning purposes, analytical methods, etc. The D.D.P. Code boundaries used for this study may be adequate as a beginning point for analysis. Actual regional boundaries may, however, require alteration in order to better facilitate the gathering of data or in order to coincide more closely with existing administrative unit boundaries or for some other reasons.

The planning boundaries will ultimately have to reflect the purposes and objectives of regional planning and the interests of the organizations, government agencies or

others that are involved in regional planning. For instance, if regional planning is functioning primarily for land use control, the boundaries required may be much different to those required for comprehensive development planning. The purpose for undertaking regional planning must be made by the decision makers of the provincial government.

The foregoing discussion has probably asked more questions than it has provided answers. These questions are, however, very complex for which no ready answers are available. In addition, it was not the intent of this chapter to formulate a development plan for the region. Much more detailed and sophisticated studies are necessary to provide the decision makers with facts on which to make meaningful and rational decisions. Regional planning may be thought of as a better method of approach toward solving regional problems than an ad hoc, unco-ordinated method used by most provincial agencies today. This approach may provide information so the decision makers can foresee problems instead of react to them. These problems along with others will be more fully discussed in Chapter V.

CHAPTER IV

REGIONAL PLANNING WITHIN THE GOVERNMENTAL CONTEXT

In this chapter it is intended to examine the planning process within the provincial government in order to gather some awareness of the planning process at the level of the provincial government. Regional planning legislation in other provinces and at the national level will also be examined in order to ensure that the proposed regional planning for Saskatchewan will be compatible with these other forms of regional planning.

The Functions of Provincial Governments:

The official functions and powers of provincial governments are outlined in Sections 91 and 92 of the British North American Act.¹ This Act is a statute of the Parliament of Great Britain. The B.N.A. Act, in Section 92 outlines sixteen fields of legislation that are the specific concern of the provinces of Canada. The provincial governments have established governmental departments and agencies to administer all the policies pertaining to these fields of legislation. They have, however, delegated some of these responsibilities to the various municipalities and local governments

¹ For further reading see Bora Laskin - The Canadian Constitution.

within the province. Some of the departments of the provincial governments are therefore set up to administer and supervise the functions that were given to local governments.²

All provincial governments in the country have, therefore, established administrative structures to facilitate planning, administration, decision making and a multitude of other functions. A perusal of the organizational structure of the Saskatchewan Government shows us that a numerous departments, authorities, boards, commissions, crown corporations, etc. exist. All of these departments plan, make decisions, administer policy and carry out many other functions. All of these governmental departments and agencies are under the jurisdiction of a cabinet minister that is appointed to his post by the premier of the province. Directly under each minister is one or more deputy ministers. Responsible to the deputy minister are a number of department heads, directors, branch heads, etc. The many civil servants comprising each department and agency all have their specific responsibilities and decisions to make pertaining to many different problems that arise. These numerous decisions made daily throughout the province at the various levels within

² Examples in this are the Department of Municipal Affairs and Education in the Province of Saskatchewan. Education is primarily a local government responsibility, however, the Provincial Department of Education has the largest share of the provincial budget in Saskatchewan.

the government and the communications carried on within the government are important to any agency charged with "regional planning", however, an awareness of everything that is happening is virtually impossible.

Planning Within the Provincial Government Context:

Planning within the provincial government that is specifically identified as planning appears to be taking place for three different purposes. These are: (1) program planning, (2) financial planning and (3) environmental and space planning. Program planning appears to be largely, though not entirely, decentralized to the functional departments and agencies, whereas financial planning and environmental planning are carried on by both central government agencies and by the decentralized units in the departments.³

A careful study of departmental operations indicates that there is a substantial overlap in the information required and the policies and programs considered by these three levels of planning. Moreover, as each of the three levels of planning overlap, the value of collaboration seems to increase and each level needs to obtain a comprehensive view of the development taking place in the province.⁴

³ An example of this is the Budget Bureau, responsible to the Provincial Treasurer.

⁴ For example, as budgeting moves toward program budgeting, it becomes closely concerned with the quality and cost of the very activities that are primarily the subject of program planning. Similarly in environmental planning, physical designs are closely dependent upon the decisions about social objectives and action programs are directly affected by a community's economic and financial programs.

The provincial government has the prime responsibility for the evolution of all territories with provincial boundaries. It exercises this responsibility directly through provincial level activities, indirectly through the standards it sets and aids it provides for local exercise of government functions and in a less direct fashion through its participation in joint activities with other governmental units, i.e., the federal government, neighboring provinces, urban municipalities and rural municipalities. The quality of planning in the province has a direct relationship to the quality of planning in all other governmental jurisdictions.

Regional Planning Legislation in Some Other Canadian Provinces:

It is the intent of this section to examine regional planning legislation in other provinces and from this analysis to try to determine what role the provincial governments are playing in regional planning.

There is currently considerable dispute as to the appropriate role of the provincial governments in the preparation and adoption of regional development plans. This becomes evident when legislation of other provinces is examined.

British Columbia:

Under the British Columbia legislation the Lieutenant Governor in Council may, on recommendation of the Minister of Municipal Affairs, incorporate any area of land within a school district or districts and the residents thereof into a regional district.⁵ The district has, for the purposes prescribed in the incorporation, a governing body known as a Regional Board, composed of members appointed by the municipality or elected by the residents of unorganized territories included within the district. The Act provides that the Regional Board "shall prepare regional plans applicable to the regional district and revise them as necessary". The adoption of the plan so prepared is optional. The Municipal Act also provides that, on petition of the councils of two or more municipalities, the Lieutenant Governor in Council may declare any area a regional planning area which operates through a Regional Planning Board. Similar to the Regional Board the Regional Planning Board is required to prepare a regional plan and may adopt such a plan as the official plan for the regional planning area. Where there is a regional district which has undertaken the preparation of a plan, any area therein previously included

⁵ The Municipal Act, 1965, Province of British Columbia.

in a regional planning area is automatically removed from that jurisdiction and made subject to the jurisdiction of the above district.

Whether a regional district is formed with planning as one of its functions, or a regional planning area is established by the Lieutenant Governor in Council, responsibility for preparing and adopting regional plans is vested in a type of "super-council", the decisions of which are binding on constituent municipalities to the extent that these are prohibited from making bylaws or initiating any works that would conflict with the objectives of an official regional plan.⁶

⁶ In a statement prepared by the Department of Municipal Affairs prior to the amendment of The Municipal Act in 1965, the following was stated in reference to the planning function of the proposed districts:

..."one function which it is felt could best be performed by a regional district would be the planning function. Under the present procedure the Minister of Municipal Affairs in Victoria has the responsibility for planning the various area of unorganized territory in the same manner that a council of a municipality would do. This has proved to be very difficult due to the time and distance problem between various areas and Victoria. The Minister wants the service to be decentralized and would like to see the regional districts assume these responsibilities."

It can be seen from this statement that a significant element in the introduction of regional districts for planning purposes is the existence of a very large area of unorganized territory in British Columbia.

It remains to be seen whether, for planning purposes, the British Columbia system is productive of results. According to information supplied by the Director of the Regional Planning Division of the Department of Municipal Affairs in British Columbia, there is only one official Regional Plan in effect to date.

Ontario:

The Ontario approach to regional planning appears to be directly opposed to the intent of the British Columbia system.⁷ The system outlined in Ontario envisages the role of a regional council as being advisory to the provincial government body responsible for preparation of the plan. It is not suggested that there be interjected a third level of government for planning purposes. The conclusion that can be drawn from the rejection of this system of government is that matters which cannot properly be described as municipal functions are necessarily within the ambit of provincial jurisdiction. It must, however, be noted that advisory bodies tend to lack initiative which stems from decision-making responsibility.

⁷ Design for Development - Province of Ontario.

Alberta:

The Province of Alberta has a system of regional planning commissions and appears to be a compromise between the purely advisory committee and the "super council". The compromise has two significant drawbacks; first, the commission represents a level of government interposed between local and provincial government and which has the effect of segregating planning from normal governmental functions at both levels. Second, the establishment of a commission is in practice dependent upon the agreement of all (or nearly all) the constituent municipalities and the commission had no legislative power to enforce regulations and implementation of plans.

Manitoba:

The report of the Committee on Manitoba's Economic Future recommended the formation of regional development corporations as one of the means to further economic development in rural Manitoba. There are a number of these Regional Development Corporations established within the province. The basic concept behind these organizations is that a group of communities with common interests can pool their resources for development purposes. Several communities acting together can accomplish what may be impossible if

they acted separately. By approaching economic opportunities from a regional context important regional development opportunities can be undertaken more effectively. The regional approach allows rural communities to take advantage of the economies of scale in advertising, industrial development, tourist promotion and other area improvement.

A regional development corporation⁸ is financially supported by per capita grants from member municipalities and by grants from the provincial government. The provincial government also provides an establishment grant for each municipality joining a corporation for the first time. The Department of Industry and Commerce administers the regional development corporations. It appears that many of the projects undertaken by various corporations are closely related to other provincial departments, such as agriculture, forestry and recreation and tourism.

⁸ Regional Development Corporations, Department of Industry and Commerce, Manitoba.

Regional Planning at the National Level:

The Federal Government appears to be becoming increasingly concerned about regional disparity in Canada. Because of the concern for the less fortunate or declining regions in the country, they have devised a number of programs to assist these impoverished areas.

These programs all have implications for regional planning and the following is a summary of these programs:

(a) The Area Development Program (A.D.A.):

This program was designed to assist these areas in Canada that have had relatively slow growth in terms of population, employment and other economic activity. A number of these areas have been designated for assistance through special programs administered by the Federal Government. The areas designated for assistance are generally urban areas. Through a program of providing cash grants, accelerated capital cost allowance and tax exemptions to manufacturers and processors locating or expanding in designated areas, it was hoped to relieve economic disparity in slow growth areas.

Although the main objective of the A.D.A. legislation was broad in scope and had objectives of relieving chronic unemployment, the effects of this program appear to

be less than satisfactory.⁹ The program is chiefly concerned with providing incentives to industry and generally does not co-operate at a broader regional level within other federal programs designed to assist areas of slow growth.

(b) The Agricultural and Rural Development Act (A.R.D.A.):

The A.R.D.A. Act provides a fund for governments to use in the assistance of rural community development. This is a cost shared program with provincial governments. The reason for devising this Act is expressed in the preamble to a current federal-provincial A.R.D.A. agreement:

..."Rural areas and rural people are subject to widespread social, technological and economic changes that necessitate adjustments on the part of many rural areas and many rural people. The income level and standard of living of many people in rural areas is unreasonably low. Economic and social disadvantages that affect many low income rural people require government action and there is need in Canada for a more effective use of some lands, soil conservation and improvement and the management, conservation and development of water resources..."¹⁰

There are a number of A.R.D.A. agreements now signed between the provinces and the Federal Government.

⁹ For further information see T. N. Brewis, Regional Economic Policies in Canada, The Macmillan Co. of Canada, 1969. p.p. 133.

¹⁰ Department of Agriculture, Province of Manitoba publication, A.R.D.A. in Manitoba, 1968, p.p. 2.

Three large projects in Canada are being financed from the Fund for Rural Development (F.R.E.D.).¹¹ The Fund for Rural Economic Development provides a means of financing and implementing specific comprehensive rural area development programs. It is aimed at rural areas where economic and social stagnation are thought to be so severe that normal programs of governments for rural areas cannot be expected to bring about a rapid improvement of existing conditions.

At the beginning of the A.R.D.A. program most of the emphasis was being placed upon the proper use of land and upon increasing land productivity.¹² As the program proceeded, however, it became apparent that the major problem was the improvement of the human conditions in these areas and therefore the main emphasis changed to social objectives such as re-training the people and improvement of educational standards. It is generally felt that the A.R.D.A. program is a step in the right direction towards relieving economic disparity in the poorer areas.

¹¹ Of these three projects, one is for developing the Interlake Area of Manitoba and two others are agreements signed between the Federal Government and the Province of New Brunswick.

¹² For further information see T. N. Brewis, Regional Economic Policies in Canada, p.p. 95.

(c) The Atlantic Development Board:

The Atlantic Development Board has implications on regional planning at the federal level. This agency was established to assist in the development of the Atlantic provinces because of the problems of unemployment and low incomes that are particular to this area.¹³ The prime activity of the A.D.B. was investing in infra-structure in order to upgrade the area.

Because of the feeling that the federal programs of A.D.A., A.R.D.A. and A.D.B. did not go far enough in relieving regional disparity and because of the lack of co-operation and co-ordination in these agencies, the federal government passed legislation in 1968 creating the Department of Regional Economic Expansion. It is the aim of newly formed departments to co-ordinate the federal programs and guide economic development in the poorer areas of the country. Because the department was just established, any judgement on its effectiveness would be premature, however, from all indications it appears to be designed to use economic planning to guide the development of poorer regions of the country. The foregoing description leads one to conclude that there is no one type of structure that is similar in the provinces or the federal government for the purpose of admin-

¹³ op. cit. p.p. 165.

istering regional planning. Each government has established its own separate structure for regional planning purposes. Some are probably more effective than others.

Saskatchewan must therefore give careful considerations to what it wants to accomplish by regional planning and then proceed to establish the necessary agencies, legislation procedures, etc. It is desirable that this "machinery" be compatible with that of the other provinces and the federal government in order to be the most effective.

CHAPTER V

A PROPOSAL FOR REGIONAL PLANNING IN SASKATCHEWAN

In this concluding chapter it is intended to examine some proposed legislation for regional planning in Saskatchewan. Using these proposals as a guide, some changes will be recommended in order to form a more effective agency for regional planning. Finally, some of the objectives and considerations for this proposed regional planning agency will be discussed.

The Bryden Report:

There is no departmental structure within the Saskatchewan Provincial Government that is responsible for regional planning. Such departments as the Department of Industry and Commerce, the Community Planning Branch of the Department of Municipal Affairs and others do carry out studies on a regional basis, however, there is no agency directly responsible for formulating regional plans or regional development policy. It appears as if development policy is formulated by the government when pressing needs arise in certain areas, however, no comprehensive planning for development appears to take place. There have been, in the past, planning studies carried out for specific purposes such as for potash development. This aroused an interest in regional planning and a

consultant was commissioned by the Department of Municipal Affairs to carry out studies and recommend changes in legislation in order to initiate a form of regional planning.¹ The consultant brought down a preliminary report in 1968 recommending a form of regional planning.

The report recommends that neither the "super council" system, as practiced in British Columbia, or the "Regional Planning Commission" system used in Alberta is suitable to perform the functions of regional planning in Saskatchewan. The report states that the responsibility for regional planning should be accepted by the provincial government. The Community Planning Branch of the Department of Municipal Affairs would be responsible for the preparation of a regional development plan in consultation with the Minister of Municipal Affairs and a departmental committee. This departmental committee would be composed of those deputy ministers of departments concerned with the physical, social and economic development of the province. One of the prime responsibilities of this committee would be to consider regional development plans during their preparation and recommend such plans to the minister for adoption by the provincial government.

¹ R.M. Bryden - Preliminary Report on Saskatchewan Planning Legislation. Unpublished report for the Community Planning Branch of the Department of Municipal Affairs, 1968.

The report also recommends that the interests of each municipality and its citizens should be represented by its council rather than being diluted by passing through any intermediate committee. It states that it is essential that the local municipalities in each region be made a part of the planning process and be included in the system in such a manner as to ensure that the regional development plan is understood and supported at this level. It was originally proposed that a citizens' council at the regional level, known as the "Regional Development Council", be formed. The function of this council would be advising the Cabinet Committee on regional matters. The notion of giving the Regional Development Council more than just advisory power was rejected in the report. The alternate method of having citizen representation was to eliminate this intermediate body and to rely upon the various organizations and local government councils to give the provincial authority the views of the organizations concerned. It was argued that by leaving the council of each municipality to represent its interests in the preparation of the plan, the planning function will be treated as an integral part of the municipality's business and the provincial authority will obtain the views of each municipality rather than a compromise view which would necessarily have to emerge from a single set of recommendations from a regional advisory body. This latter proposal for eliminating

the advisory body at the regional level is being recommended in the report.

It is also being recommended that the proposed legislation provide for any municipality being able to appoint from among its citizens a planning committee to represent the council and the opinions of the citizens within the municipality on such matters as the committee may determine or as the council may request the committee to consider.

The report by Bryden goes on to explain that the regional development plan is not intended to replace the municipal development plan (now referred to in the Planning Act as a "Community Planning Scheme"), but rather to form the framework within which planning at the local level will be carried out. The regional plan would be directed toward the establishment of regional development policies and the delineation of general rather than specific land uses so far as such may be necessary to ensure that these policies will not be abrogated by municipal development plans that may be subsequently adopted.

The report goes on to explain in relative detail the anticipated machinery for land development. The report appears to be primarily concerned with regulating land use on a regional basis.

Suggested Changes in the Report on Regional Planning:

The Bryden Report appears to be an excellent report as far as it goes. However, as mentioned previously, the report is concerned primarily with controlling land use in the province. There is very little in the report suggesting methods for the positive planning of development in Saskatchewan on a regional basis.

The prime objective for regional planning in the province is to develop governmental policies to guide the development of the different areas of the province. This would entail all phases of development, economic, social, physical and political. The mere regulation of land use is but a small part of development.

The federal government is concerned about regional planning on a massive scale. As discussed previously, the A.R.D.A. program in its latter years realized that the development of land use policy is not at the source of the problem of regional disparity. Any meaningful development program must have as its prime concern the well being and development of the people in the regions. Policies based on the betterment of the lot of the people in the region are necessary. In his book "Regional Economic Policies in Canada", Brewis states that in order to prevent the federal

government from taking sides on provincial development issues it may be advantageous for the federal government to allow the provinces to take much of the initiative for federal aid and prove to the federal government that regional disparities do exist requiring federal aid.² This would necessitate the extensive study of regions and the formulation of positive plans and policies for development. It would also be wise for the province to protect its interests and have as much voice as possible in federal regional planning. If the province does not make any proposal for the positive development of regions, it is quite doubtful whether the federal government will.

The purpose of development planning at the provincial level should not necessarily be at cross purposes to the proposed federal planning but should supplement it. A joint planning venture such as A.R.D.A. was a positive step in this development of this kind of co-operation.

Much depends upon the regional planning machinery that is proposed at the federal level, however, one can be certain that in order to be effective, the provincial regional planning agency must represent and have the backing of the provincial government at its highest level.

² op. cit. p.p. 223.

It is a fact that the primary decisions pertaining to the development of the province are made by the elected representatives and are usually made by the premier and his cabinet; although, some of the proposed government policies are instigated at the political "level" of the party caucus meetings. The question can then be asked, "Where should the location of the regional planning function be in the provincial government?" It is quite doubtful whether regional planning will be effective unless it is in the main stream of the government activities. To achieve this objective it must have close ties with the elected policy makers - executive, legislative or both. It also needs to maintain continuing [^]liaison with other provincial agencies.

The recommendation made by the Bryden Report that the Departmental Committee, composed of deputy ministers of the departments concerned with physical, social and economic development of the province, be instituted, appear to be an acceptable recommendation because at the deputy ministers level, there are close ties with the elected representatives and policy recommendations made by these deputy ministers are more likely to be accepted by the cabinet and the premier.

The concept of having the Community Planning Branch carry out these regional planning studies and to prepare regional development plans appears to be rather weak, unless the major functions of this department are changed. This branch is, at present, a planning agency working in a "line" department under the Deputy Minister of Municipal Affairs. The planning agency responsible for regional planning should be a "staff" agency responsible not to one deputy minister but to all deputy ministers composing the provincial "Departmental Committee". The personnel of the "staff agency" may be composed of a number of "regional planners" that are respected and competent in their field. The majority of the staff may, however, be composed of members of existing departmental personnel carrying out planning in their own line department. This personnel may be on loan to the "Regional Planning Agency" during specific periods of each week or month. In this manner the line agencies in the government would get involved in the regional planning process within the Saskatchewan Government.

The Community Planning Branch may be removed from the Department of Municipal Affairs and form the core of the Regional Planning Agency. This agency should be responsible to the executive council and form a vital staff agency of

the government. In this manner the effectiveness of regional planning would be assured. (See Figure 16, Appendix B for a model of the Provincial Government and the proposed Regional Planning Agency.

The Suggested Concerns of the Regional Planning Agency:

Regional planning was found to be primarily a differentiating-integrating process carried out for decision making purposes and operating within the context of a "region". The process is a continuous one and is concerned with the goals, objectives, policies and programs necessary for the development of a region. Development may be thought of as another aspect of "change" being carried out in the continuous evolution of man. Planning being associated with decision making is undertaken by all decision makers, however, it is a primary concern of various levels of government. It is, however, necessary that all participants in the planning process be identified and if possible be brought into the process in order that alternative proposals will emerge from which a regional planning authority may freely choose those proposals necessary for the development of the region.

In the planning process there is a conscious effort to introduce a measure of rationality into long, middle or short term efforts which have to be carried on in

directing the growth of a complex dynamic region.

The analysis of the Palliser region suggests that there are a number of items that may be of concern to a regional planning agency. One of these is the changing nature of service centers in the province. A regional development plan may devise policies to encourage growth in the thriving centers or conversely it may devise policies to smooth out the demise of the smaller centers where there are strong underlying forces leading to economic decline. It is generally "political dynamite" for a government to decide and admit publically that it will hasten the demise of any smaller center. If such a decision is to be made, care must be taken to ensure that it has the backing of the majority of the people in the area.

The regional planning agency may be responsible for analysing all aspects of the regions in the province. It must decide upon an acceptable set of boundaries and should be a center for gathering data and keeping it up to date. These data will serve as a basis for establishing clearly defined objectives. Such information, in addition to that suggested in Chapter III, must include data on resources; on the labour force, its size, composition, rate of growth, and skills; on the economic structure of the

region; on the various types of economic activity, primary, secondary and tertiary, and the changes that are occurring therein; and especially on the potentialities for growth. Much of this information is unlikely to be available and will have to be collected. Accurate data are a necessity to all forms of planning if policy decisions are to be meaningful.

One of the major goals for this agency has already been discussed. It should try co-operating with regional planning agencies at the federal level to ensure that proposed development policies by the federal government, have the provincial interests at heart, and to ensure that the proposed federal programs will have the desired effects for regional development. A positive development plan for each region and the co-operation with the Federal Department of Regional Economic Development will undoubtedly help to protect provincial interests.

Another important function of the regional planning agency may be to prepare a comprehensive "Policies Plan", to guide the future growth of the province as a whole. This Policies Plan may be viewed as an instrument that encompasses in one framework, the overall plans from all the levels of planning within the provincial government. Either by reference or outright, it could include summary statements of

departmental programs, the current and projected budget arranged in program fashion, and maps and other expressions of plans for the development of the province, all presented to cover a similar long range of time, although with decreasing precision and detail for the distant future. The provincial policies plan may be considered to be the framework for regional planning policies and decisions.

To some extent, the Provincial Government of Saskatchewan has lacked definite direction. The huge technical programs provincial governments administer have in many instances duplicated and overlapped each other. Examples can be found in the construction industry, where roads were constructed one year and then flooded by irrigation project dams a few years later. A policies plan for the province and the proposal that the staff of the Regional Planning Agency contain members of other departments on loan to the agency may eliminate such a waste of resources in the future.

The question can also be asked, "Can plans for departmental programs be co-ordinated within the context of a comprehensive provincial plan?" Experience in the State of Wisconsin in the United States would indicate that this is possible but the degree of success depends upon a number of factors. First and foremost is the question of whether the planning agency has sufficiently strong ties with the

province's elected policy makers and whether or not the line agencies respect it. Secondly, there is the question of communications since line agencies are run by specialists who may prefer to at least appear self-sufficient in the administration of their programs. Again the suggestion of having members of the line agencies participate directly in the planning process may overcome some of these problems. A process of reporting to line agencies on all significant field work may also be desirable.

Much of the regional planning analysis and studies may be conducted by independent, private consulting firms. In this manner it may be ensured that qualified planners are involved in the process and that independent recommendations may be of value on developmental matters. This procedure would also enable the staff of the agency to be kept to a minimum.

The problem of local government re-organization may also be a legitimate function of the regional planning agency. Local government boundaries and local government functions were established for the horse and buggy era and more rational form of local government may be desirable. Possibly some form of regional government may be more realistic in this day and age than the existing forms of local government. The study of this matter may be best performed by the regional planning agency. The problem of environmental protection is now

coming to the fore in all aspects of life on this planet. It is thought to be one of the greatest problems facing man at this time. One of the functions of the regional planning agency may be to study regional environments and recommend policies pertaining to environmental preservation.

As mentioned previously, the prime function of the regional planning agency would be to prepare regional development plans. The goals, objectives, policies, etc. that a development plan may contain, cannot be formulated until an analysis of the area has been made and the problems identified. All personnel in the agency must have a clear notion of what is happening in each region in order that appropriate developmental policies may be formulated. The regional planning agency must base its planning on careful estimation of population and the composition of economic activity in both regional and provincial terms. The web of developmental decision-making relationships that involve various components of the provincial government as well as federal agencies must be understood as fully as possible. The "ground rules" that the province has set up to guide the developmental decisions delegated to local governments must also be understood. These are enabling legislation governing local planning and zoning, the provision of financial and technical assistance and the standards applying to public and private developmental action.

It must, however, be kept in mind that a regional development plan must have the backing and approval of the majority of the people living in the area. The plan must be a positive one designed to accomplish stated goals of development.

The regional planning agency must always be aware of new planning techniques and be prepared to adopt any technique that may improve the effectiveness of the planning process. One of the new planning techniques that is being intensively developed in American state planning agencies that may be applicable in the province is the concept of the regional change model. The model, actually a complex set of submodels, is intended to project, from the present state of affairs, the effect of specific governmental programs on the private enterprise market. Such a model seems to be potentially applicable at the provincial level of analysis.

Regional planning cannot be separated from "political" planning which shapes the conduct of the provincial government. There is a need to appreciate that the ability to plan successfully is closely related to a keen appreciation for the distribution of power between the elected officials and the administrators. We must recognize that our system of government tends toward two directions. First, toward short-term management (a two to four year term of

office) and the long-term political responsibility and second, toward a long-term management (by career administrators) and virtually no political responsibility. The difference between these two ways of thought must be taken into account by regional planning in order to understand what is going on and why certain things happen the way they do.

There must also be a need to continually assess the balance between provincial and local governments. Any directive action by the provincial government aimed at the lower levels of government is often interpreted as an infringement or derogation of "freedom of action", or of "local prerogatives". Massive or extreme opposition may result.

The fact that private enterprise still makes many, if not most, of the key developmental decisions must also be recognized. It must also be recognized that private investors in our economy seek security. One of the roles of the provincial government is to help these investors to achieve this security, not through the enactment of defensive measures, but in developing skills and in providing a high level of information and services. Provincial governments must provide the essential framework for the massive investments which private enterprise will make in the future.

There are undoubtedly many other matters that may fall into the area concern of a regional planning agency. Most of these matters will emerge once the agency begins to function. The above concerns will, however, serve to give an awareness of what regional planning involves.

In conclusion, it is felt that the province must match the impact of the new technology and of rapidly evolving social requirements with a more highly responsive political apparatus. Regional planning may help to devise this response. It is essential that the government anticipate problems rather than react to them and it requires that they match policy affirmatives with decisive implementation and it requires above all, that they never lose sight of the ultimate human consequences of their decisions.

APPENDIX A

REGIONAL THEORIES AND ANALYSIS

In this appendix it is proposed to study some of the theories pertaining to the growth, location and size of urban centers and pertaining to settlement patterns.

Human Settlement Theories:

Virtually all models of settlement locations and urban structure have one thing in common; they assume a measurable degree of order in spatial behaviour. This notion seems to be founded on the following six premises which form the basis of most models:

1. The spatial distribution of human activity reflects an ordered adjustment to the factor of distance.
2. Locational decisions are taken, in general, so as to minimize the frictional effects of distance.
3. All locations are endowed with a degree of accessibility, but some locations are more accessible than others.
4. There is a tendency for human activities to agglomerate in order to take advantage of economies of scale.
5. The organization of human activity is essentially hierarchical in character.
6. Human occupation is focal in character.

The Service Center:

Every settlement, no matter what size, is in some degree a headquarters of trades and institutions, because the very essence of a service center is the provision of goods and services for a tributary area. Every place acts as a focus or what is sometimes called "nodality" but which is now generally referred to as "centrality".

The economic activities of a service center fall broadly into two classes:

1. Basic Activities - i.e. those which bring income to the place from outside its limits and are primarily industrial in character. The range of these activities depends on the nature of the goods or services and the competition of neighboring centers. The terms trade area, sphere of influence, upland, hinterland and urban field are variously used to define this area.
2. Non-Basic Activities - i.e. those which exist to service the basic workers and their dependents.

Various factors are responsible for urban growth and settlement patterns and the most important of these through history have been the central services of trade and institutions. The places in which they segregate are popularly called hamlet, village, town, city and metropolis.

They are distributed in repetitive spatial patterns and in more or less close relationship and interaction with their environs.

The services provided by any urban center depend on direct contact with the consumer. Attraction to the consumer market is the ruling force in the location of all types of service, but services tend to be localized at more widely spaced intervals in accordance with three sets of principles:

1. The most efficient size of a specialized establishment,
2. The difference in the intensity of demand for various types of service is instrumental in deciding in what size town it shall locate,
3. The increased speed and ease of transport reduces the attractiveness of the local market for various types of services.

The degree of segregation of centralized services depends upon the range of the service from the center and the population that is required for its effective provision. The range of service of a commodity (th geographic limit of collection and delivery) depends on the degree of its specialization and the frequency with which it has to be provided or purchased and the money involved in buying it.

The "threshold" of a service is the minimum demand (usually expressed by total population) which is required to support the concern providing the public service. The area required to provide this threshold depends on the density of population, available income, needs and preferences and spatial competition between similar services.

It therefore follows that there will be a tendency around any one center for service areas of a variety of trades and institutions to have general common limits, so forming a zonal boundary. Smaller centers tend to have one such zone around them. Larger centers, with a greater variety of services, have a more complex structure, which comprises a series of zones at varying distances from the center. The degree to which the service boundaries of trades and institutions coincide is generally indicative of the degree of cohesion in the area they enclose.

The outer range of the distribution and collection of goods and services around the center constitutes the "trade area". However, social institutions and political and natural boundaries may also cause the coincidence of many trade boundaries.

Christaller's Central Place Theory:

On the basis of the preceeding principles discussed in this chapter, there emerges a hierarchy of centers, graded according to the degree of concentration of centralized services, which to a considerable degree is reflected in the population size. This theme was developed by the German scholar, Walter Christaller.

Christaller's model is of the "regular lattice type" and forms the basis of his central place theory which he published in 1933. He viewed it as a "general deductive theory" to explain the "size, number and distribution of towns in the belief that there is some ordering principle governing the distribution".

Christaller assumed an isotropic surface, i.e., uniform distribution of population and purchasing power, uniform terrain and resource localization and equal transport facilities in all directions.

Working on a theoretical basis and taking a market town with a service radius of four kilometers as the fundamental unit area Christaller has drawn up a scheme of the distribution of centralized services, which he shows, is closely borne out by the facts of town size and distribution in south Germany. This system is based on what he calls the "market principle". Theoretically, in respect of centralized

services, the central places should be located in the center of a circular trade area. However, circular trade areas overlap, enabling competition between centers in the servicing of the intersecting border zones. To resolve this problem, Christaller postulated a system of hexagon shaped trade areas in which all places are uniformly spaced from each other, so as to form a triangular lattice. Centers of similar status are thus trade areas of the same size. Centers of higher service status will serve larger sized hexagonal trade areas, and accordingly will be uniformly spaced at a greater distance from each other. From this geometrical pattern of increasing size of trade areas associated with increased service status, it follows that any center will be surrounded on the periphery of its trading area by six equally spaced centers of similar lower order, equally spaced from each other and from the dominating central place. (See Figure 1 in Appendix B.) Since there is a gradation of services with respect to the extent of the areas which they serve, there is a corresponding gradation in the degree of their concentration, which in large measure is reflected in the settlement size. This concentration proceeds in steps from which may be recognized a hierarchy of centers. In this hierarchy certain assumptions are made concerning the vertical organization. These are that higher order places

supply all the goods of the lower order places plus a number of higher order goods and services that differentiates them from and at the same time sets them above central places of lower order. A second assumption is that higher order places offer a greater range of goods and services, have more establishments, higher populations and trade area populations and do a greater volume of business than lower order settlements. This vertical organization has horizontal expression in that higher order central places are more widely spaced than order places and lower order places, in order to be provided with higher order goods and services, are contained or "nest" within the trade areas of higher order places according to a definite rule.

A hierarchy of settlements can be organized in various ways, each with its own geometrical arrangement of central places and trade area boundaries. In Christaller's basic model, organized on the market principle, the hierarchy and nesting pattern results in the maximum number of central places. This particular system is known as the K-3 network.

Although Christaller's K-3 model has received most attention in empirical studies, he did postulate two other forms of hierarchical arrangements to take account of the marketing principle. These were the K-4 network organized according to the "transport principle" which was proposed

to account for situations in which the costs of transport were significant and the K-7 network which was proposed to take account of the "administrative" principle or principle of "Separation".

Christaller's work has met much criticism, however, it is a basic concept for regional analysis and regional planning. Christaller's work has initiated much research in the fields of physical and social planning and the term "central place" is now firmly established among the students of cities and planning. The scientific study of geographical patterns of phenomena has been the subject of numerous studies, e.g., Losch, Christaller and Boustedt in Germany, Ponsard in France, Hagerstrand in Sweden and Isard, Berry, Garrison and Warntz in the U.S.A., where it is included under the heading of "Regional Science".

Other methods of recognizing, delineating, measuring and analysing central places, urban hierarchies and settlement patterns are also used. Some of these are, regular lattice models, regular cluster models, complex horizontal arrangements, periodic central places, vertical arrangements and many other methods. Christaller's concept of central places is, however, an invaluable contribution to regional analysis. One must be careful, however, that central place theory is not treated too rigidly. Society

and settlements are dynamic and forever in a state of change. Urban research is still in a relatively primitive stage of development and much more research work is needed to provide comprehensive understanding of the complex integrated growth and structure of urban areas. A concentrated effort is required by geographers, economists and other disciplines if spatial models are to be at all meaningful.

APPENDIX B

TABLE 1 - LIST OF HIERARCHICAL CLASSES AND FUNCTIONAL INDICES

<u>Class "A"</u>	<u>Functional Index</u>
Moose Jaw	1776
Swift Current	1203
<u>Class "B"</u>	
Assiniboia	395
Shaunavon	415
Maple Creek	312
Gravelbourg	330
Eston	220
Leader	149
Gull Lake	164
<u>Class "C"</u>	
Herbert	71
Ponteix	86
Eastend	65
Lafleche	64
Cabri	57
Elrose	47
Craik	56
Eatonia	48
Mossbank	39
Rockglen	43
Willowbunch	45
Kyle	60
Central Butte	30
Fox Valley	44
Morse	37
Lucky Lake	40
Mankota	40
Hodgeville	32
<u>Class "D"</u>	
Prelate	14
Coronach	27
Chaplin	19

Functional Index

Burstall	24
Tompkins	19
Beechy	23
Vanguard	19
Val Marie	14
Climax	21
Mortlach	9
Kincaid	11
Tugaske	10
Pennant	12
Frontier	14
Cadillac	10
Abbey	16
Sceptre	15
Lancer	10
Richmound	13
Aneroid	18
Hazlet	10
Coderre	10
Consul	8
Waldeck	5
Eyebrow	19
Mendham	22
Piapot	8
Marquis	11
Neville	9
Webb	6
Rush Lake	8
Meyronne	6
Glentworth	8
Viceroy	5
Brownlee	3
Ernfold	15
Aylesbury	7
Success	4
Admiral	6
Tuxford	5
Golden Prairie	5
Dollard	4
Hazenmore	5
Wood Mountain	6
St. Victor	5
Shamrock	5
Mantario	6
Bracken	5
Bateman	5

Functional Index

Madison	7
Mazenod	11
Keeler	3
Woodrow	4
Palmer	1
Spring Valley	1
Portreeve	4
Plato	3
Robsart	7
Shackleton	4
Lawson	2
Carmichael	2
Ardill	5

Class "E"

This class contains all the remaining villages and hamlets in the study area.

TABLE 2 - Example of Location Coefficient and Centrality Index Calculations

<u>Type of Service</u>	<u>Total No. in Region</u>	<u>Location Coeff.</u>	<u>Total in Centre</u>	<u>Centrality Index of Moose Jaw</u>
Accountants	22	0.0454	4	18.2
Auto Dealerships	78	0.0128	13	16.6
Bank or Credit Union	102	0.0098	12	11.8
Barber or Beauty Shop	115	0.0087	30	26.1

TABLE 3

Incorporated Urban Municipalities in the Study Area

Cities

Moose Jaw

Swift Current

Towns

Assiniboia
Cabri
Central Butte
Craik
Eastend
Eatonia
Elrose
Eston
Gravelbourg
Gull Lake
Herbert

Kyle
Lafleche
Leader
Maple Creek
Morse
Mossbank
Ponteix
Rockglen
Shaunavon
Willow Bunch

Villages

Abbey
Admiral
Aneroid
Ardill
Aylesbury

Fox Valley
Frontier

Glentworth
Golden Prairie

Bateman
Beechy
Bracken
Brownlee
Burstall

Hazenmore
Hazlet
Hodgeville

Keeler
Kincaid

Cadillac
Carmichael
Chaplin
Climax
Coderre
Consul
Coronach

Lancer
Lawson
Lucky Lake

Dollard

Madison
Mankota
Mantario
Marquis
Mazenod
Mendham
Meyronne
Mortlach

Ernfold
Eyebrow

Neville

Palmer

Pennant

Piapot

Plato

Portreeve

Prelate

Richmound

Robsart

Rush Lake

Sceptre

Shackleton

Shamrock

Spring Valley

St. Victor

Success

Tompkins

Tugaske

Tuxford

Val Marie

Vanguard

Viceroy

Waldeck

Webb

Wood Mountain

Woodrow

TABLE 4 - Populations of Rural Municipalities in Palliser Region

R.M. No.	1950	1955	1960	1967	Change (1950-1967)	% Change (1950-1967)	Ave. % Per Year
11	1039	774	750	626	-413	-39.7	-2.33
12	791	555	650	565	-226	-28.6	-1.68
18	586	479	420	426	-160	-27.3	-1.60
19	551	466	428	364	-187	-33.9	-1.99
42	2056	1750	1500	1128	-928	-45.1	-2.65
44	1020	900	694	680	-340	-33.3	-1.95
45	1289	1200	940	460	-829	-64.3	-3.78
46	583	475	400	327	-256	-43.9	-2.58
49	661	485	494	451	-210	-31.8	-1.87
51	484	527	480	450	-34	-7.02	-0.41
71	1832	1475	1400	1261	-571	-31.2	-1.83
72	914	947	836	734	-180	-19.7	-1.16
73	1756	1500	1200	1000	-756	-43.1	-2.54
74	1557	1460	932	771	-786	-50.5	-2.97
75	1080	980	600	484	-596	-55.2	-3.25
76	969	825	834	703	-266	-27.5	-1.62
77	1129	583	557	510	-619	-54.8	-3.22
78	660	570	553	513	-147	-22.3	-1.31
79	850	580	524	535	-315	-37.1	-2.18
101	1190	929	700	712	-478	-40.2	-2.36
102	930	586	700	540	-390	-41.9	-2.46

R.M. No.	1950	1955	1960	1967	Change (1950-1967)	% Change (1950-1967)	Ave. % Per Year
103	1240	1350	1000	841	-399	-32.2	-1.89
104	1750	900	900	855	-895	-51.1	-3.01
105	1295	1450	1033	784	-511	-39.5	-2.32
106	983	980	824	729	-254	-25.8	-1.52
107	1212	960	915	782	-430	-35.5	-2.09
108	1090	950	1050	921	-169	-15.5	-.912
109	799	680	663	675	-124	-15.5	-.912
110	642	596	511	417	-225	-35.1	-2.06
111	586	628	529	537	-49	-8.36	-.492
131	1031	1113	930	847	-184	-17.8	-1.05
132	501	500	320	253	-248	-49.5	-2.91
133	620	640	750	522	-98	-15.8	-.929
134	863	900	850	545	-318	-36.8	-2.16
135	1513	964	975	801	-712	-47.1	-2.77
136	1640	1650	1660	1075	-565	-34.5	-2.03
137	1980	1800	2000	2500	+520	+26.3	+1.55
138	1175	920	890	750	-425	-36.2	-2.13
139	900	550	500	475	-425	-47.2	-2.78
141	534	411	400	330	-204	-38.2	-2.25
142	365	850	864	673	+308	+84.4	+4.96
161	1581	1440	3490	3436	+1855	+117.3	+6.90
162	700	1295	1284	994	+294	+42.0	+2.47
163	641	619	635	502	-139	-21.7	-1.28
164	731	632	744	426	-305	-41.7	-2.45

R.M. No.	1950	1955	1960	1967	Change (1950-1967)	% Change (1950-1967)	Ave. % Per Year
165	960	723	664	602	-358	-37.2	-2.19
166	2880	1850	1800	1502	-1378	-47.8	-2.81
167	1004	868	850	675	-329	-32.8	-1.93
168	1326	979	1062	813	-513	-38.7	-2.28
169	1140	1100	950	580	-560	-49.1	-2.89
171	1145	920	876	768	-377	-32.9	-1.94
191	860	1023	770	728	-132	-15.3	-.900
193	1143	1165	870	675	-468	-40.9	-2.41
194	984	890	800	623	-361	-36.7	-2.16
195	941	773	765	702	-239	-25.4	-1.49
222	850	1200	650	628	-222	-26.1	-1.54
223	853	794	700	673	-180	-21.1	-1.24
224	763	665	693	445	-318	-41.7	-2.45
225	620	525	440	420	-200	-32.3	-1.90
226	1050	900	650	760	-290	-27.6	-1.62
228	1436	2234	2000	1931	+495	+34.5	+2.03
229	1200	1300	870	640	-560	-46.7	-2.75
230	1070	870	880	556	-514	-48.0	-2.82
231	2000	875	1080	1000	-1000	-50.0	-2.94
232	641	550	650	475	-166	-25.9	-1.52
257	828	815	820	561	-267	-32.2	-1.89
258	1149	750	750	772	-377	-32.8	-1.93
259	1515	1400	1580	980	-535	-35.3	-2.08

R.M. No.	1950	1955	1960	1967	Change (1950-1967)	% Change (1950-1967)	Ave. % Per Year
260	800	759	760	740	-60	-7.50	-.441
261	920	740	725	640	-280	-30.4	-1.79
262	353	350	345	296	-57	-16.1	-.947
L.I.D. <u>No.</u>							
920		1525	1341	1170	-355	-23.3	-1.37
923		985	709	729	-256	-25.9	-1.52
926		1624	1395	1327	-297	-18.3	-1.08
929		725	847	807	+82	+11.3	+.665
932		204	239	229	+25	+12.3	+.724
						-1993.38	
AVERAGE PER RURAL MUNICIPALITY						-26.23%	-1.54%

TABLE 5

Class "A" Centered Systems in the Palliser Region

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
Swift Current	Shaunavon	B	2,600	+950	+57.6	+3.39
	Gravelbourg	B	1,700	+350	+25.9	+1.52
	Herbert-Morse	C-C	1,600	+227	+26.4	+1.48
	Eston	B	1,512	+412	+37.5	+2.21
	Leader	B	1,250	+375	+42.9	+2.52
	Gull Lake	B	1,214	+479	+65.2	+3.84
Moose Jaw	Herbert-Morse	C-C	See Swift Current			
	Gravelbourg	B	See Swift Current			
	Assinaboia	B	2,812	+1012	+56.2	+3.31

TABLE 6

Class "B" Centered Systems in the Palliser Region

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
Swift Current	Kyle	C	550	+246	+80.9	+4.76
	Cabri	C	727	+177	+32.2	+1.89
	Ponteix	C	1,000	+352	+54.3	+3.19
	Hodgeville	C	411	+175	+74.2	+4.36
Shaunavon	Eastend	C	900	+200	+28.6	+1.68
	Ponteix	C	See Swift Current			
	Hodgeville	C	See Swift Current			
Gravelbourg	Ponteix	C	See Swift Current			
	Mankota	C	400	+158	+65.3	+3.84
	Lafleche	C	739	+222	+42.9	+2.52
	Mossbank	C	600	+15	+2.56	+0.15
	Mossbank	C	See Gravelbourg			
Assinaboia	Lafleche	C	See Gravelbourg			
	Rockglen	C	554	+192	+53.0	+3.12
	Mankota		See Gravelbourg			
	Willowbunch	C	575	+25	+4.55	+0.27
Moose Jaw	Mossbank	C	See Gravelbourg			
	Hodgeville	C	See Swift Current			
	Central Butte	C	543	+228	+74.5	+4.38
	Craik	C	635	+165	+35.1	+2.06

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
	Hodgeville	C		See Swift Current		
Herbert-Morse	Central Butte	C		See Moose Jaw		
	Lucky Lake	C	430	+58	+15.6	+0.92
	Kyle	C		See Swift Current		
Eston	Elrose	C	670	+262	+62.2	+3.78
	Kyle	C		See Herbert-Morse		
	Cabri	C		See Swift Current		
	Eatonia	C	625	+248	+65.8	+3.87
	Eatonia	C		See Eston		
Leader	Cabri	C		See Swift Current		
	Fox Valley	C	510	+61	+13.6	+0.800
Maple Creek	Fox Valley			See Leader		
	Eastend			See Shaunavon		

TABLE 7

Class "C" Centered Systems in the Palliser Region

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
Kyle	White Bear	E	128	-15	-10.20	-1.02
	Lacadena	E	138	+17	+14.05	+1.41
	Tyner	E	65	+8	+14.04	+1.40
	Tuberoze	E	29	+6	+26.09	+2.61
	Sanctuary	E	46	-14	-23.33	-2.33
Cabri	Abbey	D	305	+51	+20.08	+2.01
	Pennant	D	300	+22	+7.91	+0.79
	Hazlet	D	224	+50	+28.74	+2.87
	Lancer	D	240	+66	+37.93	+3.79
	Success	D	102	+23	+29.11	+2.91
	Battrum	E	7	-23	-76.67	-7.67
	Fosterton	E	12	+7	+140.00	+14.00
	Rosary	E	18	-8	-30.77	-3.08
	Verlo	E	30	-20	-40.00	-4.00
	Shackelton	D	80	-18	-18.37	-1.84
	Nadeauville	E	--	-5	-100.00	-10.00
Ponteix	Portreve	D	86	-33	-27.73	-2.78
	Cramersburg	E	4	-1	-20.00	-2.00
	Aneroid	D	250	-33	-11.66	-1.17
	Cadillac	D	266	+30	+12.71	+1.27
	Gouverneur	E	5	-5	-50.00	-5.00
	Crichton	E	179	+54	+21.60	+2.16

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
Ponteix cont'd.	Wallard	E	5	-5	-50.00	-5.00
	Vanguard	D	386	+8	+2.12	+0.21
	Neville	D	166	-12	-6.74	-0.67
	Glenbain	E	36	-24	-40.00	-4.00
	Pambrun	E	117	+52	+80.00	+8.00
	Blumenhof	E	64	-31	-32.65	-3.27
	Esme	E	2	-8	-80.00	-8.00
Hodgeville	Shamrock	D	104	+3	+2.97	+0.30
	Neidpath	E	45	-80	-64.00	-6.40
	Kelstern	E	59	-34	-36.56	-3.66
	St. Boswells	E	16	-40	-71.43	-7.14
	Flowing Well	E	4	-1	-20.00	-2.00
	Burnham	E	4	-10	-71.43	-7.14
	Braddock	E	1	-21	-95.45	-9.55
	Scottsburg	E	2	-5	-71.43	-7.14
	Hallonquist	E	27	-12	-30.77	-3.08
Eastend	Dendron	E	6	+1	+20.00	+2.00
	Ravenscrag	E	14	-34	-70.83	-7.08
	South Fork	E	13	-5	-27.78	-2.78
	Klintonel	E	4	-1	-20.00	-2.00
	Robsart	D	80	-27	-25.23	-2.52
	Vidora	E	18	-49	-73.13	-7.31
	Govenlock	E	10	-21	-67.74	-6.78
	Senate	E	14	-7	-33.34	-3.33

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
Eastend cont'd.	Merryflat	E	4	-1	-20.00	-2.00
	Divide	E	7	-11	-61.11	-6.11
	Arena	E	1	-6	-12.00	-1.20
	Consul	D	222	+117	+111.43	+11.14
	Climax	D	390	+197	+67.24	+6.72
	Frontier	D	289	+91	+45.96	+4.60
	Bracken	D	102	+3	+3.03	+0.30
	Loomis	E	23	-2	-8.00	-0.80
	Claydon	E	17	-9	-34.62	-3.46
Swift Current	Canuck	E	8	-14	-63.64	-6.36
	Stewart Valley	D	145	+11	+8.21	+0.82
	Wymark	E	202	+22	+12.22	+1.22
	McMahon	E	37	-63	-63.00	-6.30
	Beverley	E	41	+6	+17.14	+1.71
	Cantuar	E	41	+25	+156.25	+15.63
	Waldeck	D	215	+128	+147.13	+14.71
	Beaver Flat	E	4	-1	-20.00	-2.00
	Leinan	E	14	-10	-41.67	-4.17
Shaunavon	Blumenhof	E	64	-31	-32.63	-3.26
	Admiral	D	112	-34	-23.29	-2.33
	Simmie	E	125	+42	+50.60	+5.06
	Dollard	D	121	+13	+12.04	+1.20
	Instow	E	17	-26	-60.47	-6.05
	Scotsguard	E	51	-37	-42.05	-4.21

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
Shaunavon cont'd.	Crichton	E	12	-13	-52.00	-5.20
	Frenchville	E	7	+2	+40.00	+4.00
	Lac Pelletier	E	2	-58	-96.67	-9.67
	Vesper	E	6	0	0	0
Gravelbourg	Glenbain	E	36	-24	-40.00	-4.00
	Bateman	D	77	-60	-43.80	-4.38
	Coderre	D	166	-35	-17.41	-1.74
	Mazenod	D	97	-52	-34.90	-3.49
	Arbuthnot	E	7	-6	-46.15	-4.62
	Coppen	E	1	-11	-91.67	-9.17
	Palmer	D	75	+8	+11.94	+1.19
	Treudale	E	6	-8	-57.14	-5.71
Lafleche	Courval	E	65	-15	-18.75	-1.88
	Hazenmore	D	125	-58	-31.69	-3.17
	Meyronne	D	159	-69	-30.26	-3.03
	Limerick	D	175	-65	-27.08	-2.71
	Melaval	E	75	-40	-34.78	-3.48
Mossbank	Woodrow	D	90	-59	-39.60	-3.96
	Spring Valley	D	70	-44	-38.60	-3.86
	Mazenod	E	78	-71	-47.65	-4.77
	Coderre	D	227	+26	+12.94	+1.29
	Bayard	E	19	-15	-44.12	-4.41
	Galilee	E	3	-4	-57.14	-5.71
	Vantage	E	35	-25	-41.67	-4.17

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
Mossbank cont'd.	Ardill	D	28	-10	-26.32	-2.63
	Expanse	E	11	-34	-75.56	-7.56
	Ettington	E	2	-11	-84.62	-8.46
	Dunkirk	E	6	-7	-53.85	-5.39
	Crestwynd	E	23	-2	-8.00	-0.80
	Mitchelton	E	6	-36	-85.71	-8.57
Rock Glen	Wood Mountain	D	125	+10	+8.70	+0.87
	Fife Lake	E	104	-47	-31.13	-3.11
	Scout Lake	E	67	-44	-39.64	-3.96
	Flintoft	E	15	-14	-48.28	-4.83
	Fir Mountain	E	42	-48	-53.33	-5.33
	Lisieux	E	71	-1	-0.14	-0.01
	Constance	E	17	-5	-22.73	-2.27
	Canopus	E	12	+ 5	+71.43	+7.14
	Strathallen	E	3	-6	-66.67	-6.67
	Killdeer	E	35	-8	-18.60	-1.86
	Coronach	D	443	+143	+47.67	+4.77
	Hart	E	5	-2	-28.57	-2.86
	East Poplar	E	4	-19	-82.61	-8.26
	Buffalo Gap	E	11	-31	-73.81	-7.38
Willow Bunch	Readlyn	E	55	-78	-58.65	-5.87
	Viceroy	D	132	-104	-44.07	-4.41
	Scout Lake	E	67	-44	-39.64	-3.96
	Harptree	E	16	-10	-38.46	-3.85

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
Willow Bunch cont'd.	St. Victor	E	97	+27	+38.57	+3.86
	Verwood	E	64	-61	-48.80	-4.88
	Limerick	D	175	-65	-27.08	-2.71
	Readlyn	E	55	-78	-58.65	-5.87
	Crane Valley	E	117	+27	+30.00	+3.00
	Scout Lake	E	67	-44	-39.64	-3.96
	Cardross	E	11	-1	-8.33	-0.83
	Ormiston	E	220	+120	+120.00	+12.00
	Assinaboia Willows	E	11	-23	-67.65	-6.77
	Maxstone	E	10	-15	-60.00	-6.00
	Stonehenge	E	10	+10	+100.00	+10.00
	Valor	E	2	-12	-85.71	-8.57
	Lakenheath	E	5	-10	-66.67	-6.67
	Congress	E	74	-46	-38.33	-3.83
Moose Jaw	Mortlach	D	340	+122	+55.96	+5.60
	Tuxford	D	141	-6	-4.08	-0.41
	Marquis	D	188	+59	+45.74	+4.57
	Caron	E	109	-17	-13.49	-1.35
	Parkbeg	E	87	+5	+6.10	+0.61
	Keeler	D	71	-4	-5.33	-0.53
	Rowletta	E	3	-3	-50.00	-5.00
	Grayburn	E	5	-5	-50.00	-5.00
	Archydal	E	13	-2	-13.33	-1.33
	Belbeck	E	6	-3	-33.33	-3.33

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
Moose Jaw cont'd.	Pasqua	E	45	+1	+2.27	+0.23
	Bailden	E	7	-11	-61.11	-6.11
	Archive	E	2	-7	-77.78	-7.78
	Boharm	E	52	+18	+52.94	+5.29
	Tilney	E	8	-9	-52.94	-5.29
	Buttress	E	-	-8	-100.00	-10.00
	Old Wives	E	13	+5	+62.50	+6.25
Central Butte	Riverhurst	D	275	+57	+26.15	+2.62
	Elbow	D	373	+126	+51.01	+5.10
	Tugaske	D	334	+148	+79.57	+7.96
	Eyebrow	D	264	+63	+31.34	+3.13
	Gilroy	E	6	-12	-66.67	-6.67
	Lawson	D	76	+2	+2.70	+0.27
	Mawer	E	73	-12	-14.12	-1.41
	Kettlehut	E	1	-4	-80.00	-8.00
	Thunder Creek	E	5	-1	-16.67	-1.67
	Grainland	E	1	-4	-80.00	-8.00
	Darmody	E	34	-5	-12.82	-1.28
	Bridgeford	E	34	-8	-19.05	-1.91
	Brownlee	D	155	+24	+18.32	+1.83
	Eskbank	E	7	-27	-79.41	-7.94
	Lake Valley	E	15	-13	-46.43	-4.64

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
Craik	Holdfast	D	441	+179	+68.32	+6.83
	Chamberlain	D	177	+41	+30.15	+3.02
	Findlater	E	95	+34	+55.74	+5.57
	Aylesbury	D	110	-17	-13.39	-1.34
	Penzance	E	80	-14	-14.89	-1.49
Herbert-Morse	Chaplin	D	438	+64	+17.11	+1.71
	Neidpath	E	45	-80	-64.00	-6.40
	Main Center	E	51	-78	-60.47	-6.05
	Rush Lake	D	182	-14	-7.14	-0.71
	Gouldtown	E	62	+22	+55.00	+5.50
	Ernfold	D	124	-27	-17.88	-1.79
	Glen Kerr	E	30	+10	+50.00	+5.00
	Calderbank	E	4	-16	-80.00	-8.00
	Aquadell	E	2	-3	-60.00	-6.00
	Prairie View	E	9	+4	+80.00	+8.00
Lucky Lake	Uren	E	9	-10	-52.63	-5.26
	Valjean	E	7	-1	-12.50	-1.25
	Beechy	D	416	+189	+83.26	+8.33
Eston	Birsay	E	136	+10	+7.94	+0.79
	Madison	D	113	+9	+8.65	+0.87
	Plato	D	88	-47	-34.81	-3.48
	Richlea	E	79	-36	-31.30	-3.13
	Snipe Lake	E	19	-35	-64.81	-6.48
	Isham	E	22	-16	-42.11	-4.21

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
Elrose	Hughton	E	72	-15	-17.24	-1.72
	Wartime	E	62	-29	-31.87	-3.19
	Greenan	E	20	+6	+42.86	-4.29
	Mondou	E	-	-9	-100.00	-10.00
	Forgan	E	66	-3	-4.35	-0.44
Eatonia	Glidden	D	84	-10	-10.64	-1.01
	Mantario	D	101	-4	-3.81	-0.38
	Laporte	E	63	-37	-37.00	-3.70
Leader	Sceptre	D	234	+14	+6.36	+0.64
	Mendham	D	206	+48	+30.38	+3.04
	Burstall	D	181	-33	-15.14	-1.51
	Estuary	E	23	-38	-62.30	-6.23
	Lemsford	E	51	-2	-3.77	-0.38
	Liebenthal	E	40	+3	+8.11	+0.81
Fox Valley	Richmound	D	187	+22	+13.33	+1.33
	Burstall	D	432	+218	+100.00	+10.00
	Golden Prairie	D	118	-104	-46.85	-4.69
	Linacre	E	13	-1	-0.71	-0.07
	Horsham	E	13	-13	-50.00	-5.00
Maple Creek	Golden Prairie	E	114	-108	-48.65	-4.87
	Piapot	D	204	-41	-16.73	-1.67
	Hatton	E	37	+1	+2.78	+0.28

System Center	Satellite Center	Satellite Rank	Population 1967	Population Change (1950-67)	% Change (1950-67)	Ave.% Per Year
Gull Lake	Tompkins	D	420	+32	+8.25	+0.83
	Webb	D	186	+28	+17.72	+1.77
	Sidewood	E	2	-8	-80.00	-8.00
	Carmichael	D	92	+21	+29.58	+2.96
	Antelope	E	10	-30	-75.00	-7.50
	Duncairn	E	3	-5	-62.50	-6.25
Mankota	Glentworth	E	134	-12	-8.22	-0.82
	McCord	E	88	-80	-47.62	-4.76
	Firland	E	105	+35	+50.00	+5.00
	Fir Mountain	E	42	-48	-53.33	-5.33
	Horse Creek	E	2	-3	-60.00	-6.00
Shaunavon	Valmarie	D	400	+43	+12.04	+0.20
	Orkney	E	63	-47	-42.73	-4.27
	Masefield	E	20	-16	-44.44	-4.44

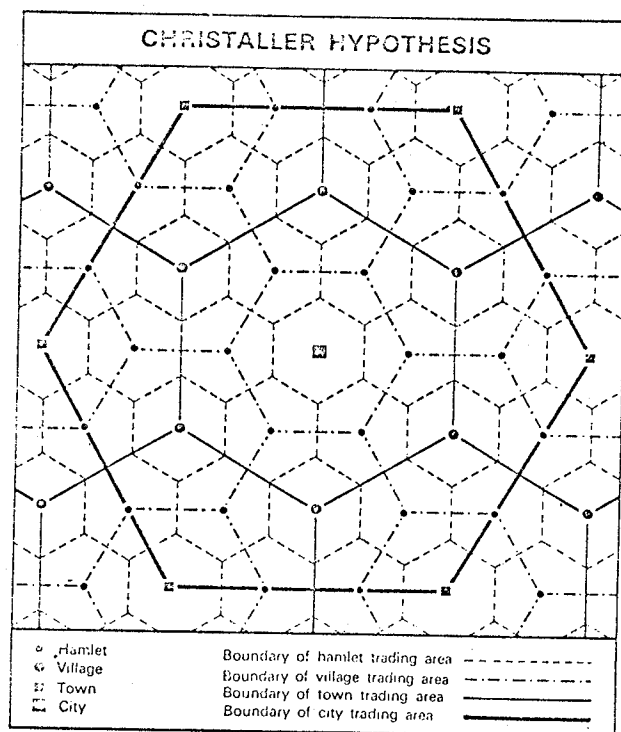


Fig. 1 W. Christaller's theory of the arrangement of trade centres.

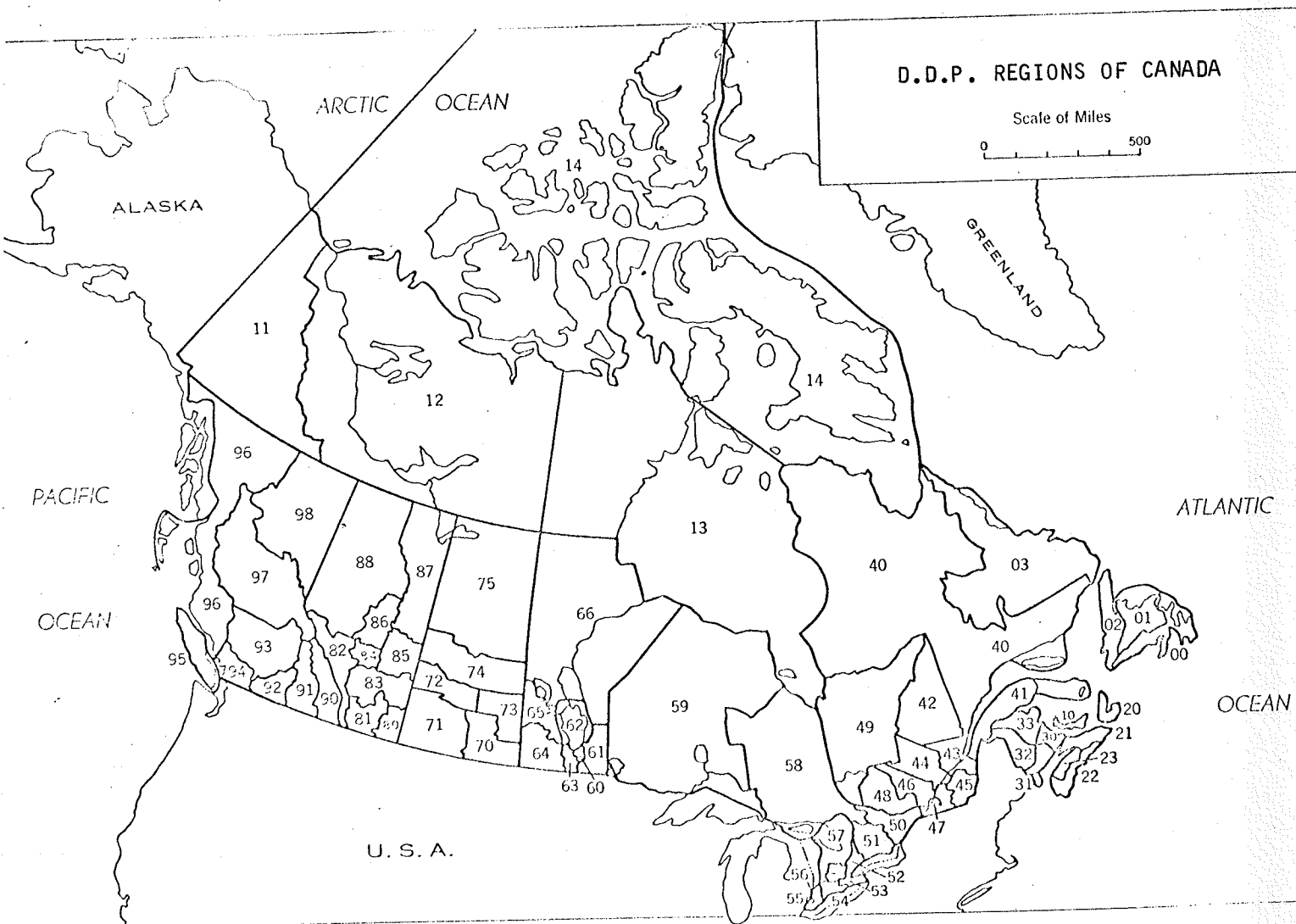
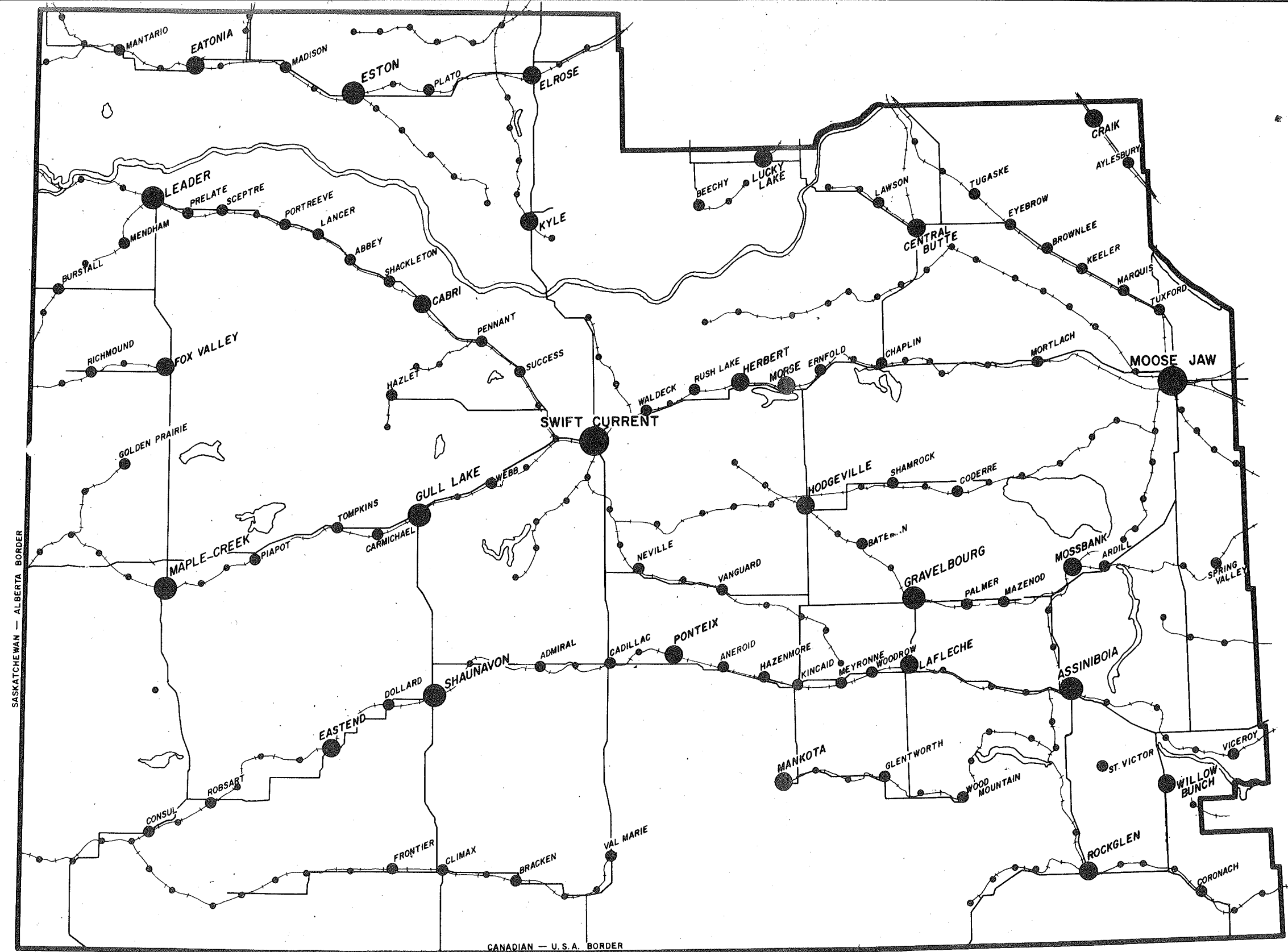


Fig. 2



PALLISER D. D. P. REGION No. 71

URBAN HIERARCHY & TRANSPORTATION

FIG. 3

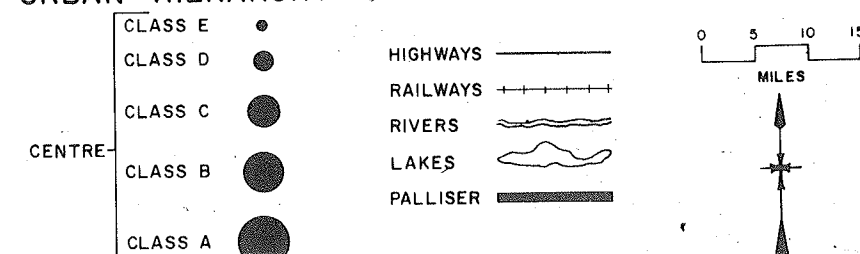


FIG. 4 FUNCTIONAL INDICES FOR URBAN CENTERS IN THE PALLISER REGION

CLASSES

	C	D	C	D	C	D	C	D
EATONIA								
MOSSBANK								
ROCKGLEN								
WILLOW BUNCH								
KYLE								
CENTRAL BUTTE								
FOX VALLEY								
PRELATE								
MORSE								
CORONACH								
CHAPLIN								
LUCKY LAKE								
BURSTALL								
TOMPKINS								
BEECHY								
MANROTA								
VANGUARD								
VAL MARIE								
HODEDEVILLE								
CLIMAX								
MORTLACH								
KINCAID								
TUGASKIE								
PENNANT								
FRONTIER								
CADILLAC								
ABBEY								
SCEPTRE								
LANCER								
RICHMOND								
ANERIOD								
HAZLET								
CODEPARE								
CONSUL								
VAL DECK								
EYEBROW								
MEADOWHAM								
PIAPOT								
MARQUIS								
NEVILLE								
WEBB								
RUSH LAKE								
MEYBONNE								
GLENTWORTH								
VICEROY								
BROWNLEE								
ERNFOLD								
AYLESBURY								
SUCCESS								
ADMIRAL								
TUXFORD								
GOLDEN PRAIRIE								
DOLLARD								
HAZENMORE								
WOOD MOUNTAIN								
ST VICTOR								
SHAMROCK								
MANTARIO								
BRACKEN								
BATEMAN								
MADISON								
MAZENOD								
KELER								
WOODROW								
PALMER								
SPRING VALLEY								
PORTREVE								
PLATO								
ROSSART								
SHACKLETON								
LAWSON								
CARMICHAEL								
ARDILL								

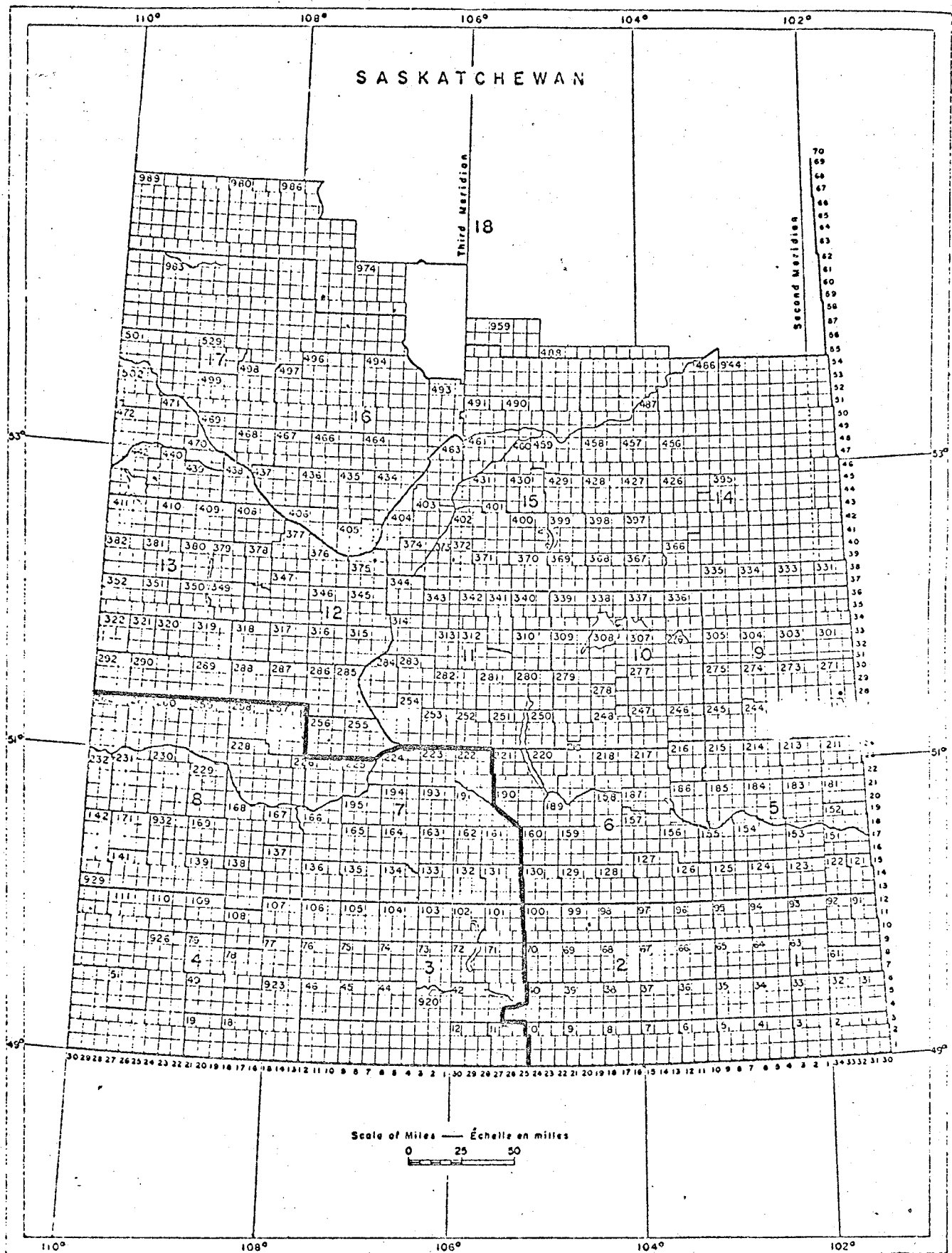
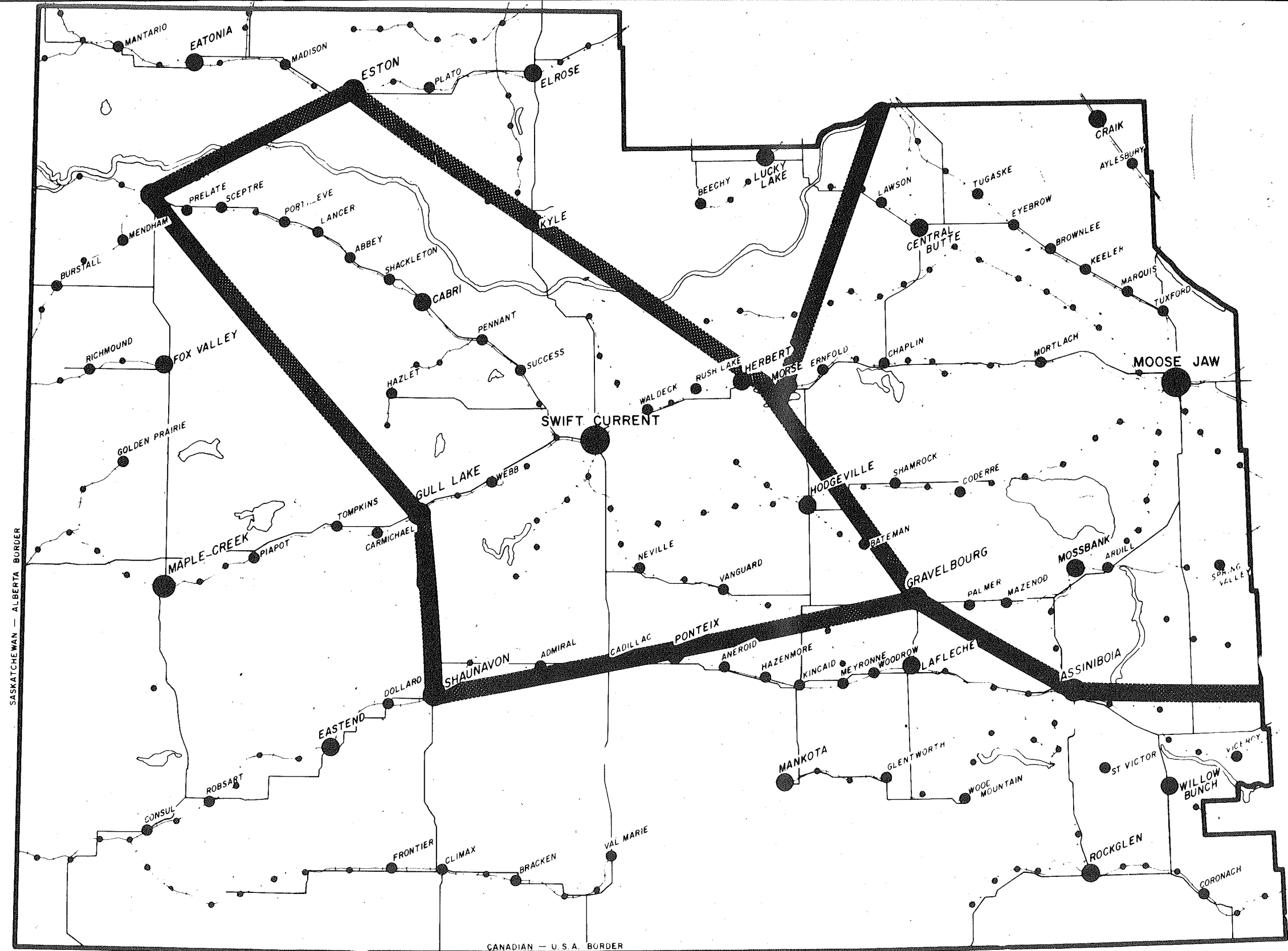


Fig. 7 Rural Municipal Boundaries in Saskatchewan and in Palliser Study Region



PALLISER D. D. P. REGION No. 71

CLASS A CENTERED SYSTEMS

- CLASS E ●
- CLASS D ●
- CLASS C ●
- CLASS B ●
- CLASS A ●

CENTRE

- HIGHWAYS ———
- RAILWAYS —+—+—+—
- RIVERS ———~———
- LAKES ———~———
- PALLISER SYSTEM BOUNDARIES ———

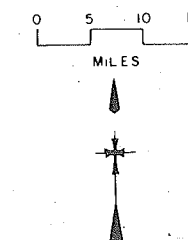
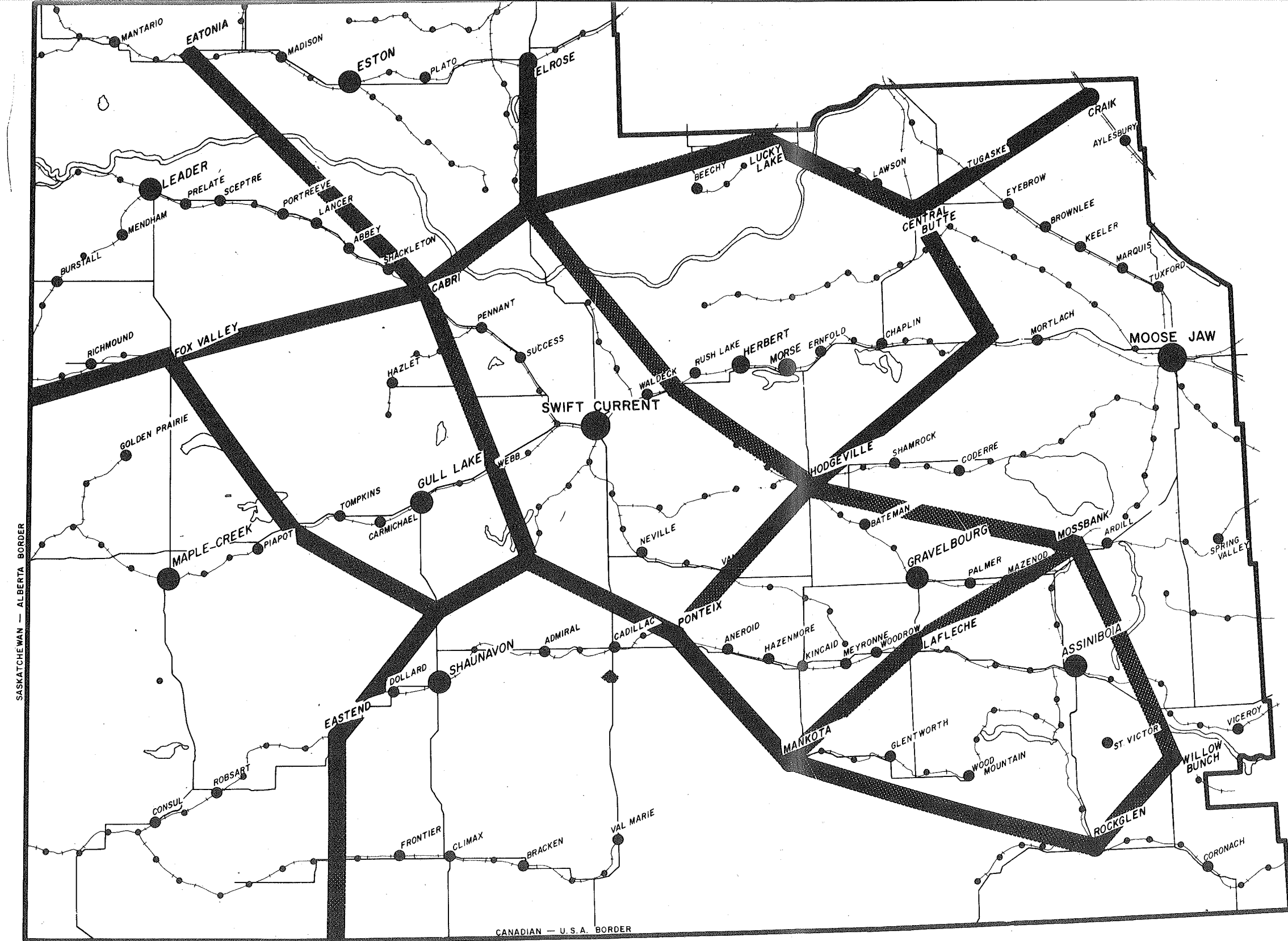
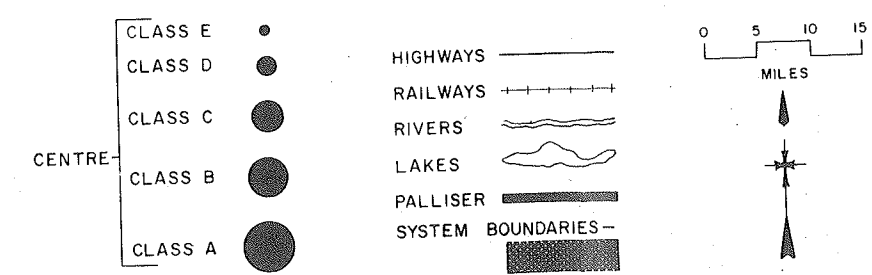


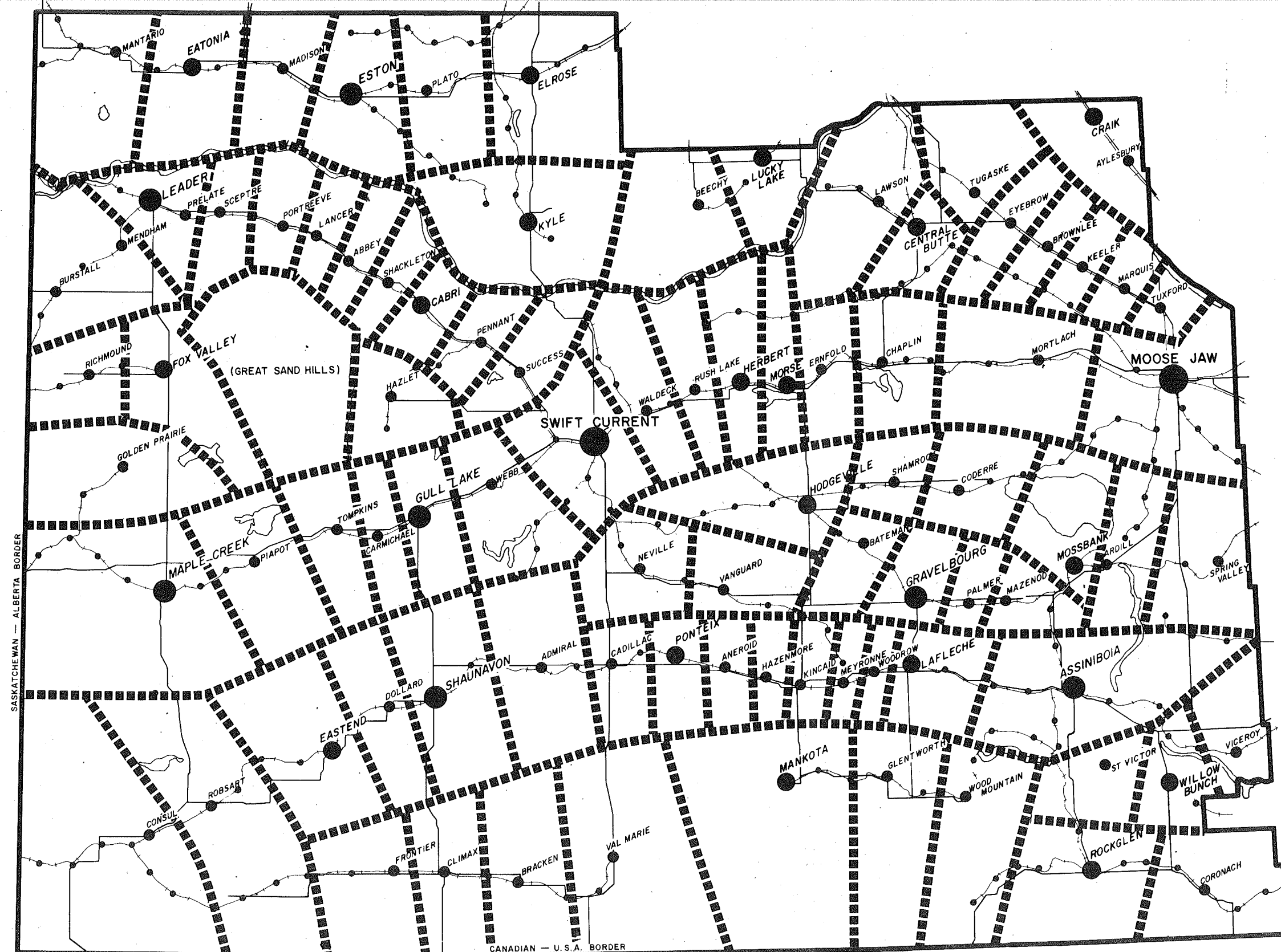
FIG. 8



PALLISER D. D. P. REGION No. 71
CLASS B CENTERED SYSTEMS

FIG. 9





PALLISER D. D. P. REGION No. 71

APPROXIMATION OF BOUNDARIES OF CLASS D CENTERED SERVICE AREAS

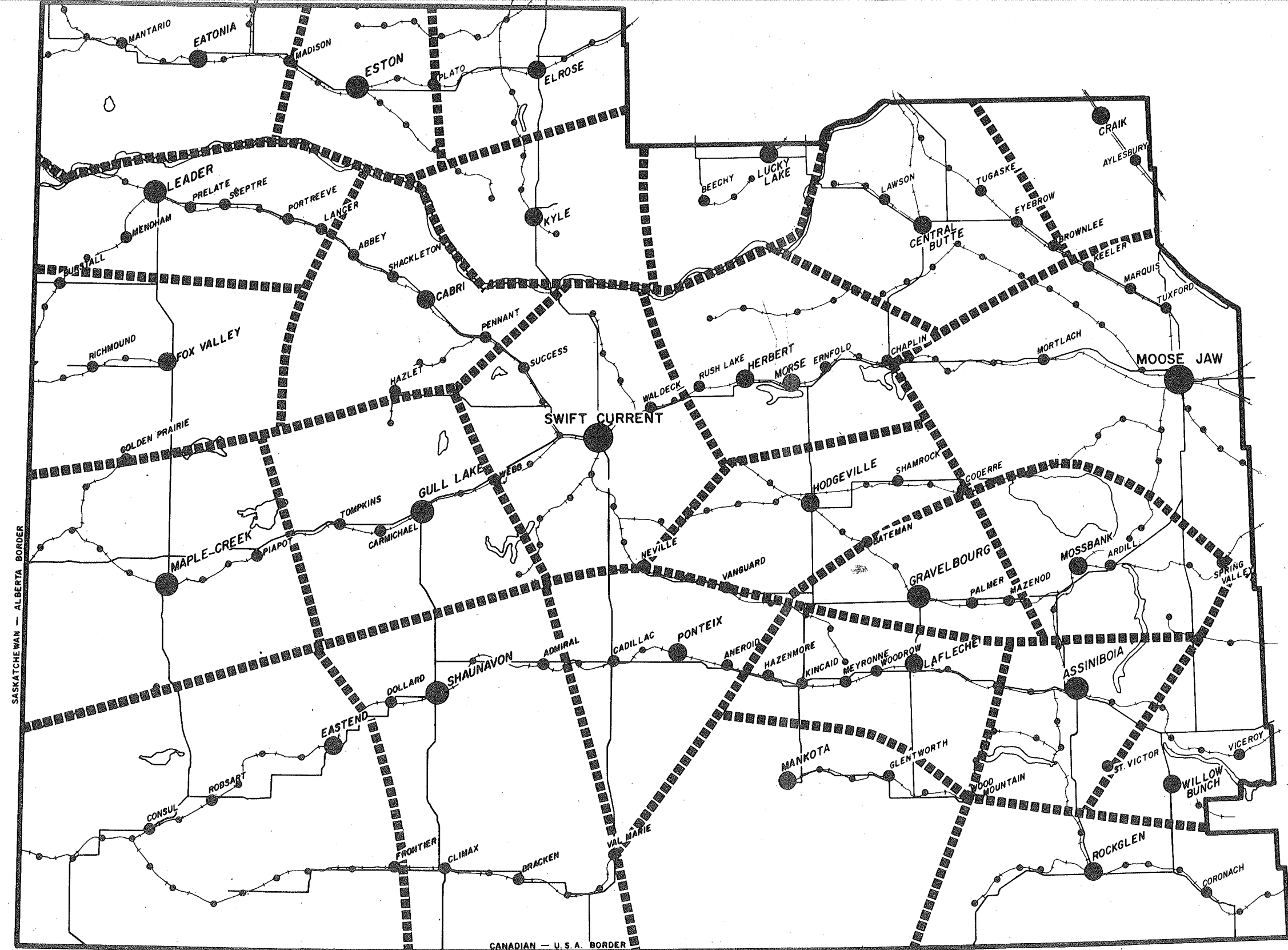
FIG. 10

CENTRE

CLASS E	●	HIGHWAYS	—
CLASS D	●	RAILWAYS	—+—+—+—
CLASS C	●	RIVERS	~~~~~
CLASS B	●	LAKES	~~~~~
CLASS A	●	PALLISER	—
		SERVICE CENTER—	—
		BOUNDARIES	

0 5 10 15
MILES



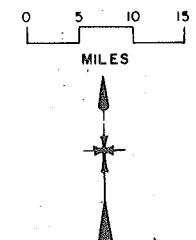


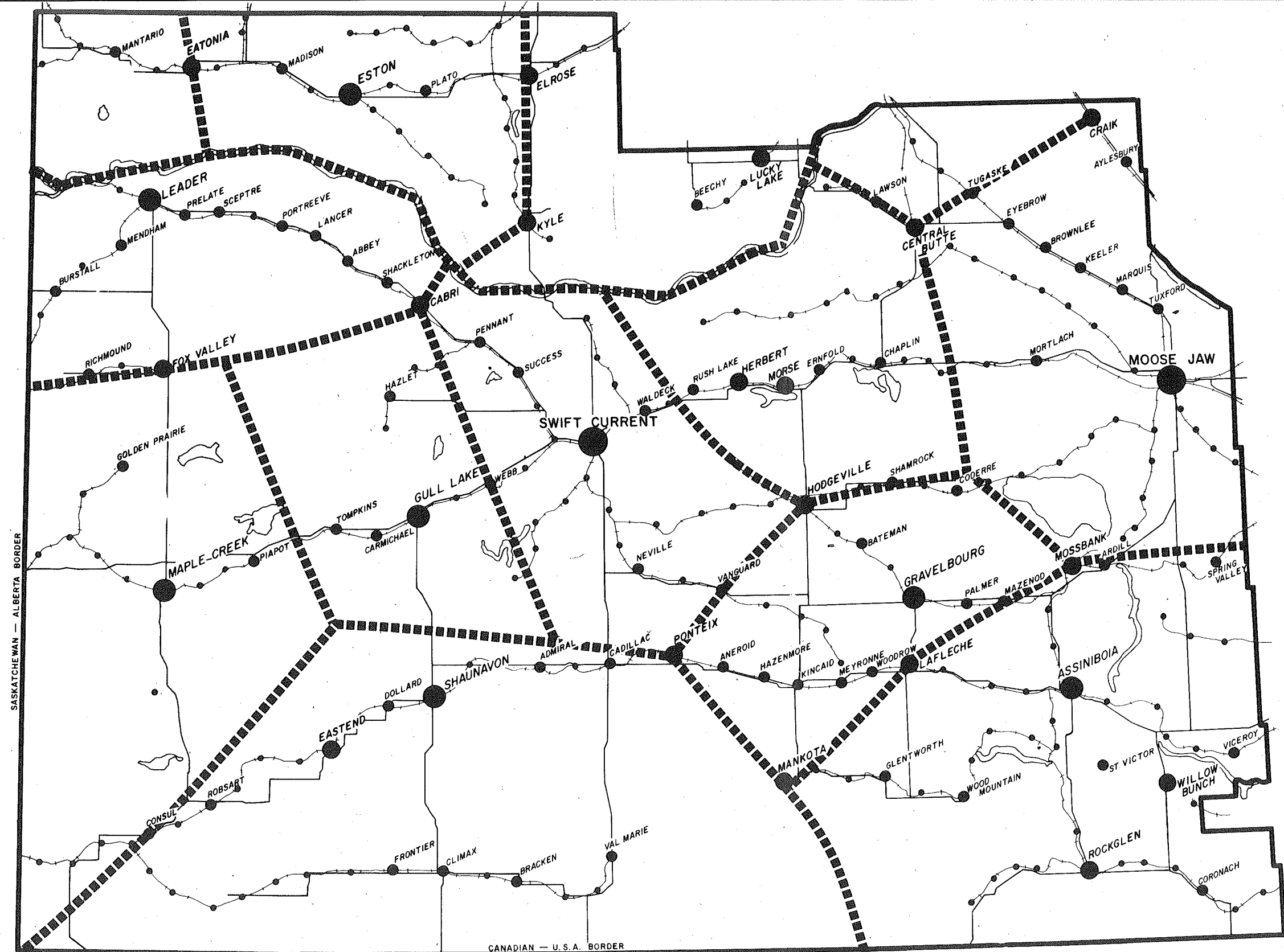
PALLISER D. D. P. REGION No. 71
 APPROXIMATION OF BOUNDARIES OF CLASS C CENTERED SERVICE AREAS

FIG. II

CENTRE-

- | | | | |
|---------|---|-----------------|-----------|
| CLASS E | • | HIGHWAYS | — |
| CLASS D | • | RAILWAYS | —+—+—+— |
| CLASS C | • | RIVERS | ~~~~~ |
| CLASS B | • | LAKES | ~~~~~ |
| CLASS A | • | PALLISER | — |
| | | SERVICE CENTER- | |
| | | BOUNDARIES | ■ ■ ■ ■ ■ |





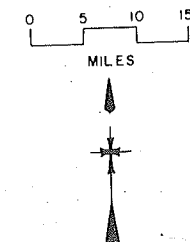
PALLISER D. D. P. REGION No. 71
 APPROXIMATION OF BOUNDARIES OF CLASS B CENTERED SERVICE AREAS

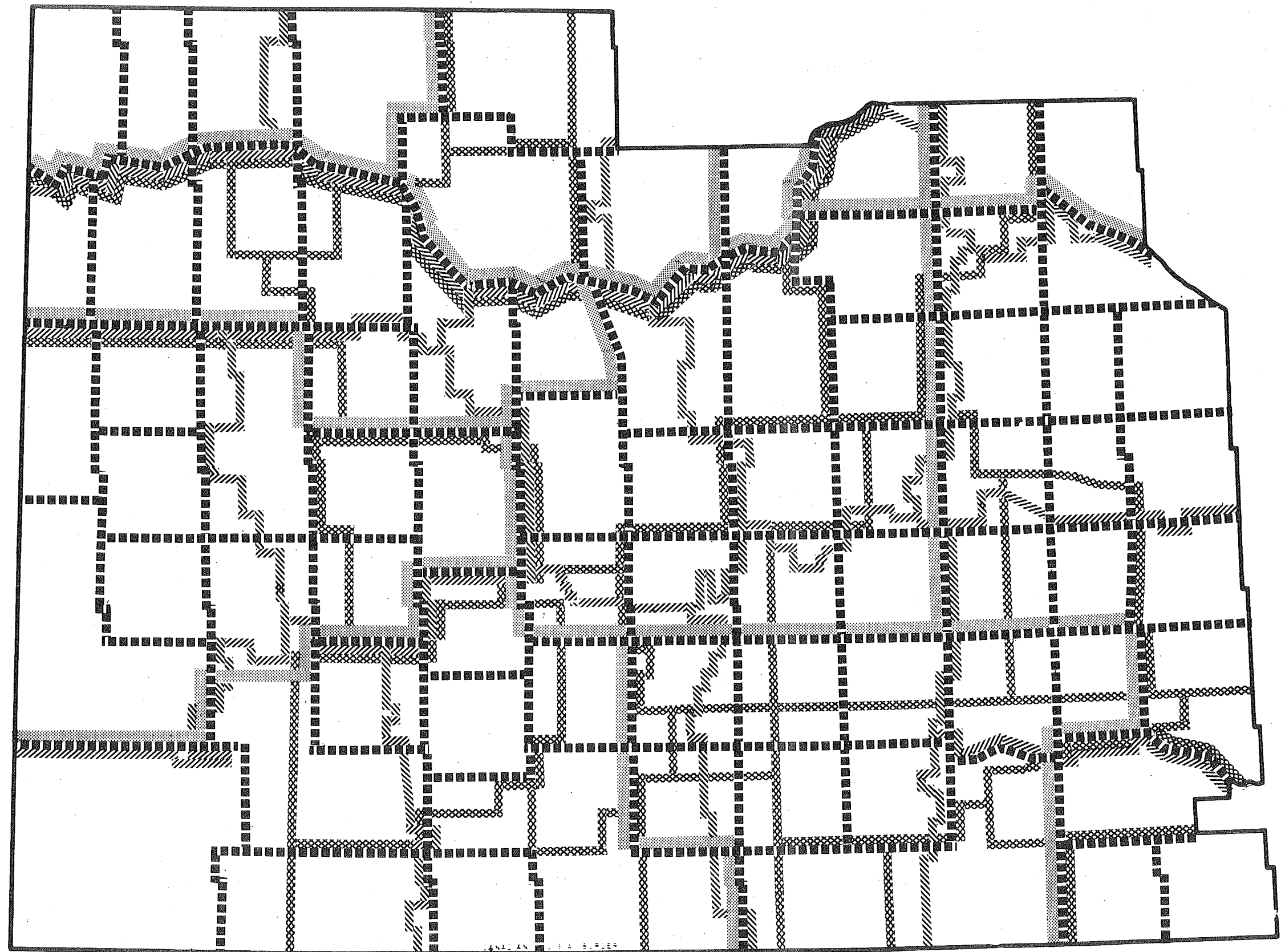
FIG. 12

CENTRE-

- CLASS E ●
- CLASS D ●
- CLASS C ●
- CLASS B ●
- CLASS A ●

- HIGHWAYS ———
- RAILWAYS —+—+—+—
- RIVERS ———
- LAKES ———
- PALLISER ———
- SERVICE CENTER BOUNDARIES ———



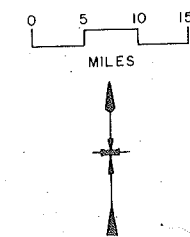


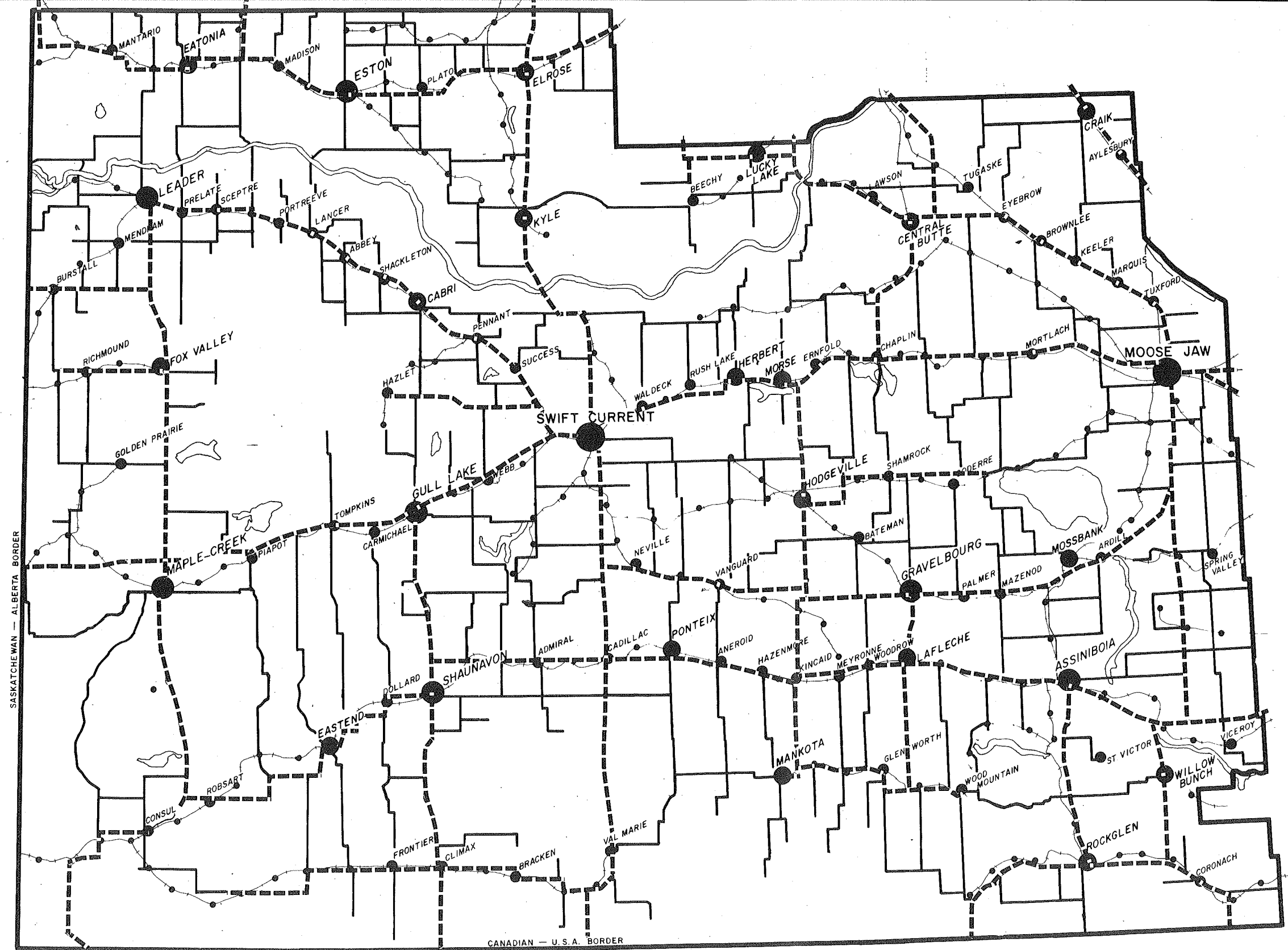
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SOME ADMINISTRATIVE BOUNDARIES IN STUDY AREA

FIG. 13

- RURAL MUNICIPAL BOUNDARIES
- SCHOOL UNIT BOUNDARIES
- UNION HOSPITAL BOUNDARIES
- AGRICULTURAL REPRESENTATIVE BOUNDARIES
- PALLISER BOUNDARIE





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TRANSPORTATION NETWORK IN STUDY AREA

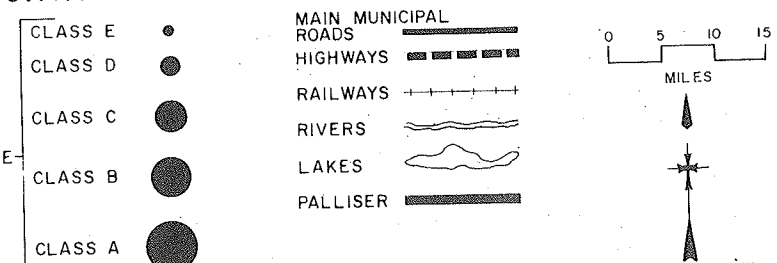
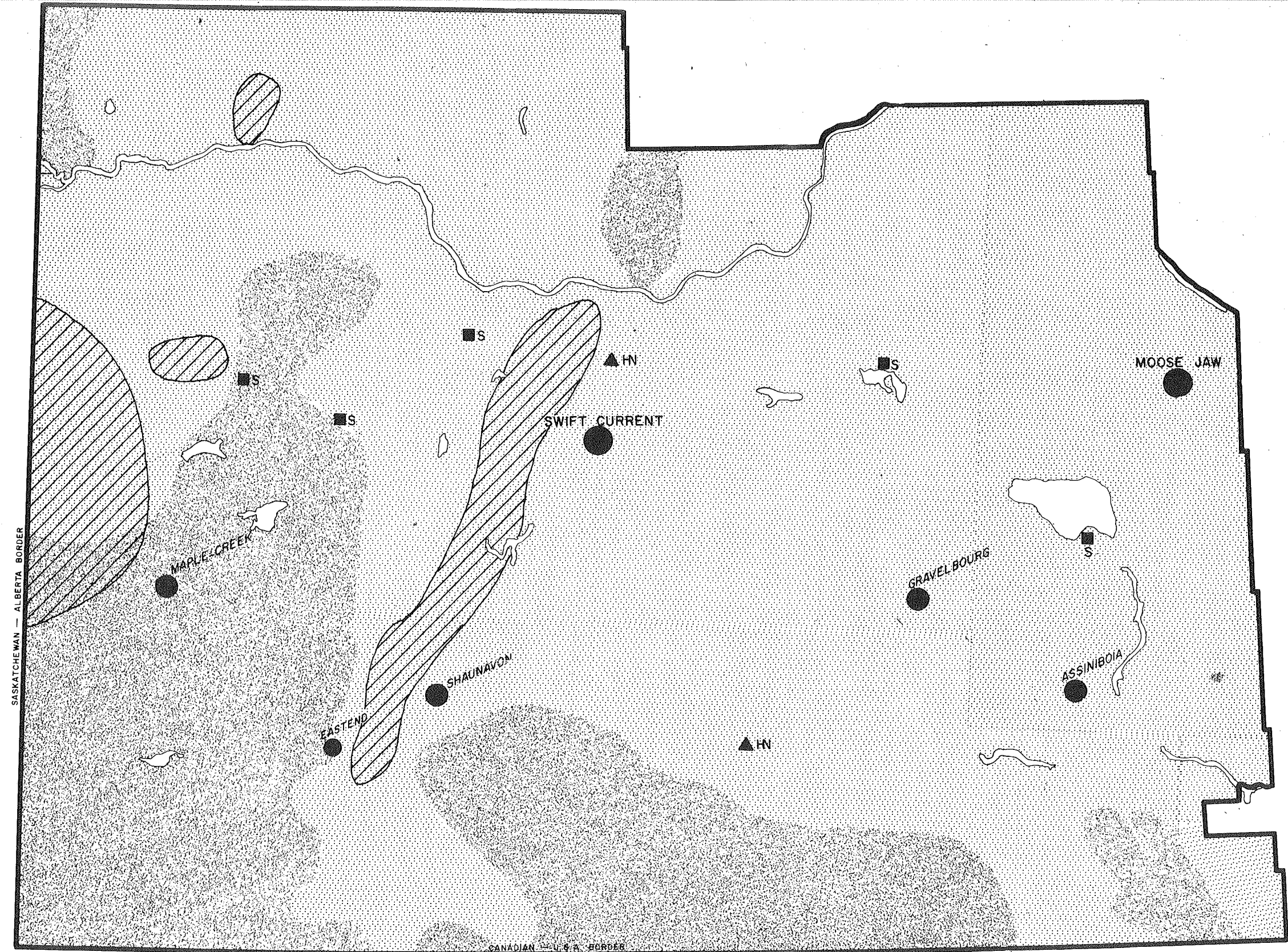


FIG. 14

CENTRE



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ECONOMIC BASE OF STUDY AREA

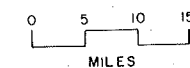
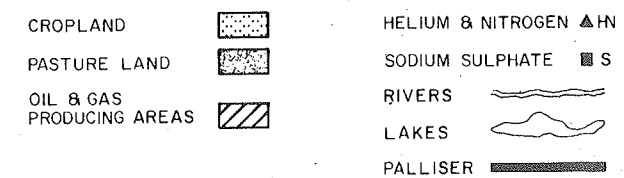


FIG. 15

Figure 16

ORGANIZATIONAL CHART OF THE PROVINCIAL GOVERNMENT
(Legislative and Executive)

