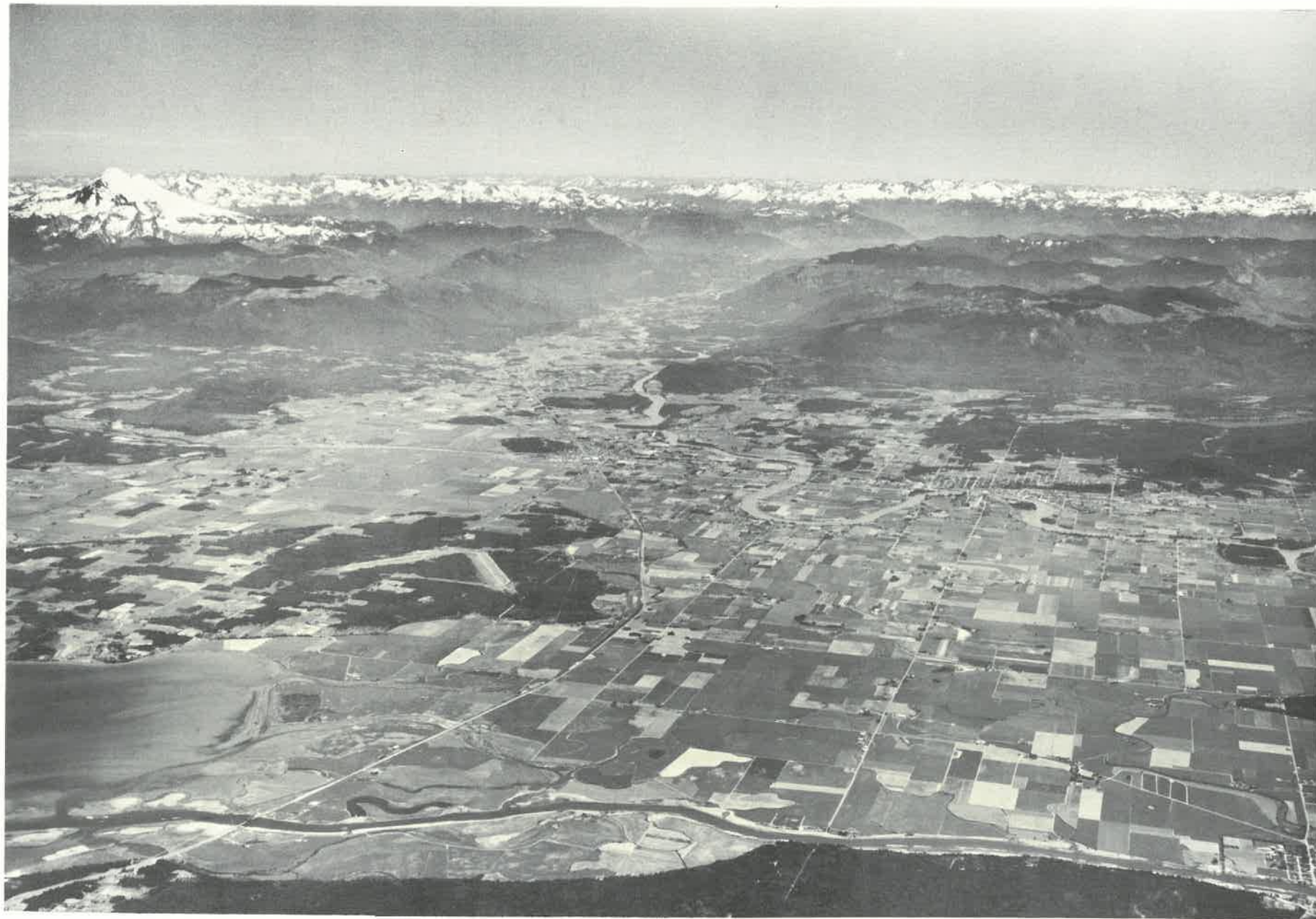


COMPREHENSIVE PLAN



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COMPREHENSIVE PLAN TEXT SKAGIT COUNTY

The preparation of this report was aided by the Washington State Department of Planning & Community Affairs through a Federal Grant from the Urban Renewal Administration of the Department of Housing and Urban Development, under the Urban Planning Assistance Grant Program authorized by Section 701 of the Housing Act of 1954 as amended.

Updated and revised January, 1968 by Skagit County Planning Department in conjunction with Skagit County Planning Commission

Arnell I. Johnson

Arnell I. Johnson, Chairman

Floyd Kamb

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Thomas G. Thompson, Jr.

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Wayne Kite

Wayne Kite, Planning Director

Original Plan prepared
February, 1965
By M. G. Poole & Associates

January, 1968

Mr. Jack Wylie, Chairman
Board of County Commissioners
Courthouse
Mount Vernon, Washington

Dear Mr. Wylie:

Enclosed is the text of the proposed Skagit County Comprehensive Plan. This text, the "Analysis of Population in Skagit County, the Skagit County Economic Base, October 1964, "Parks and Recreation, A Plan for Skagit County" and the large wall map entitled "Comprehensive Plan, Land Use, Transportation, Community Facilities, for Skagit County" comprises the Comprehensive Plan of Skagit County.

The objectives listed in this Plan have been submitted to, discussed, and reviewed by the Skagit County Planning Commission during the last two years.

We wish to acknowledge the cooperation of the various local, county, state and federal officials in supplying data for this Plan.

We are very grateful for the complete cooperation that has been given to us throughout this entire planning program by Chairman Arnell Johnson and each of the members of the Skagit County Planning Commission.

We also wish to acknowledge the cooperation of Lanche Crow and Marian Servoss of the County School Superintendent's office, and the superintendents of the various school districts in Skagit County, in submitting detailed data regarding existing and needed school buildings and facilities.

It is hoped that this Plan will serve as a guide and a point of reference in the development of Skagit County during the coming years.

Very truly yours,

Wayne Kite

Wayne Kite, Director
Skagit County Planning Department

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TABLE OF CONTENTS

<u>Chapter</u>		<u>Page</u>
I	Objectives	7
II	Purpose and Intent	8
III	Population	11
IV	Densities of Population	21
V	Flood Protection	30
VI	Economic Base	38
VII	Land Use	42
VIII	Traffic Circulation	47
IX	Community Facilities	51
X	Plan Implementation	67
	Appendix	69

TABLES - STANDARDS (CONTINUED)

<u>Number</u>		<u>Page</u>
17	Major Arterial Streets	73
18	Secondary Arterial Street	74
19	Major Collector Street	75
20	Commercial Access Street	76
21	Minor Access Street	77
22	School Site Standards	78
23A	Standards for Public Recreation Areas and Facilities	79
23B	Standards for Public Recreation Areas and Facilities	80

TABLES - STANDARDS (CONTINUED)

<u>Number</u>		<u>Page</u>
17	Major Arterial Streets	73
18	Secondary Arterial Street	74
19	Major Collector Street	75
20	Commercial Access Street	76
21	Minor Access Street	77
22	School Site Standards	78
23A	Standards for Public Recreation Areas and Facilities	79
23B	Standards for Public Recreation Areas and Facilities	80

MAPS

<u>Number</u>		<u>Page</u>
1	Distribution of Population	10
2	Population in Skagit County by Census Divisions	16
3	Precipitation Land Classifications	20
4	Soil Suitability for Septic Tank Sewage Disposal	23-24
5	Community Facilities	50
6	Comprehensive Plan Map - Land Use, Transportation, Community Facilities	66

OBJECTIVES

These are the basic objectives of this Comprehensive Plan:

- to promote a coordinated development of the industrial, residential, agricultural, commercial, recreational and public land use in this County.
- to prevent and eliminate the pollution of air, soil and water in this County.
- to coordinate with the long range plans of other government agencies in this region
- to develop and protect neighborhoods in existing and future residential areas
- to provide for the highest and best use, in the public interest, of the land in Skagit County.
- to conserve and restore natural beauty and other natural resources, including prime agricultural lands.
- to facilitate the adequate provision of transportation, water, sewerage, and other public facilities.

CHAPTER II

PURPOSE & INTENT

It is the purpose and intent of this Comprehensive Plan to provide a general guide for the orderly growth and development of the land and the physical improvements in the unincorporated areas in Skagit County, outside of Federal, State and Indian territory, and to provide a foundation upon which zoning, subdivision regulations and other implementing tools needed to carry out this Plan may be established.

SCOPE

The following define the scope, operation, and content of the Skagit County Comprehensive Plan :

This Plan is an expression of public policy outlining a general pattern of land uses and related guiding principles for the development of land in Skagit County as prepared by the Planning Agency and adopted by the Board of County Commissioners.

This Plan deals primarily with the location and functioning of general categories of land use and related needs, and may be

augmented by more detailed plans arising out of further studies and analyses.

This Plan is comprehensive in that it deals with the entire County and contains the following basic elements necessary to the total range of physical development within this County.

Major Functions of the Plan

This Plan serves to express the values of the majority of the residents of Skagit County, in terms of what they want their County to be in the future. It is an expression of the long range objectives of the people.

This Plan serves as a guide to private citizens and public bodies who, through their individual programs, are developing this County.

This Plan serves as the long range foundation-framework for the development of specific County codes, ordinances, regulations and public improvements relating to the management and development of this County through official action of the County of Skagit. It therefore follows that such codes, ordinances,

improvements and programs should serve to further the realization of the objectives, goals and policies as set forth in this Plan.

Comparison of Comprehensive Plan and Zoning Ordinances

This Plan sets up long range goals upon which zoning is legally founded. Zoning is one of several methods by which the Plan and its objectives are realized. Other methods include building codes, subdivision regulations, capital improvement programs, and urban renewal.

This Plan describes the general location of broad categories of land use within Skagit County. Zoning is detailed regulation by ordinance of the use of land and buildings, the height of buildings, their size, location of yards and open spaces, providing for offstreet parking and loading and other related matters.

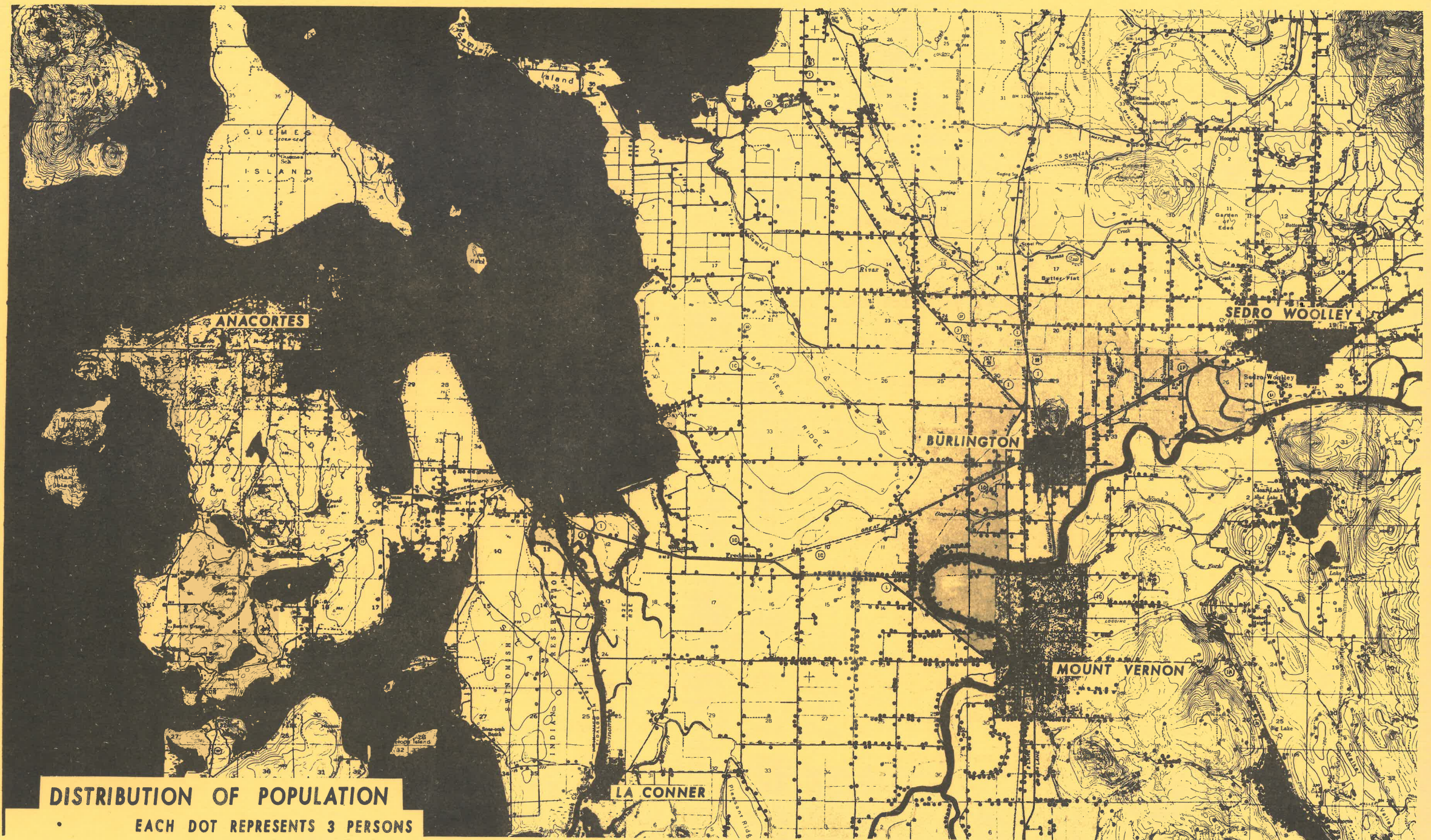
The boundaries between Planning Areas as described in this Plan illustrate general locations only, rather than precise

property or street lines on the ground. Exact legal boundaries between land use districts are established in the zoning ordinance.

Plan Development and Revision

The Planning Commission is directed by State Law to prepare and recommend a Plan to the Board of County Commissioners.

This Plan should be periodically reviewed by the Planning Commission and said Board. In addition to adding more detailed plans, it may be necessary from time to time to change basic features of the Plan, as economic, social or technological changes indicate a better basic pattern of land use or a need for re-evaluation of planning principles and objectives. The initial adoption of the Plan and all additions or changes, must by State Law be accompanied by hearings before the Planning Commission. The Board of County Commissioners, as the legislative body, may affirm or disaffirm any decision of the Commission relative to the Plan.



POPULATIONExisting

Table 1 reveals the varying rates of growth in the State and in Skagit County during the last six decades, and the anticipated increase during the period 1960-1985. The comparatively uniform ratio between County and State population during the last six decades is a significant factor in estimating future population in Skagit County. The decreasing ratio between this County and the Four-County Region*, as shown in Table 1, indicates the continuing migration of population to the centers of employment in those counties; it does not indicate a decreasing rate of population increase in Skagit County.

Comparison of city and county population ratios are not significant due to the fact that increases in city population are frequently due to annexation of new territory rather than additional persons within the same territory.

Map No. 1 reveals the distribution of population in the more densely

populated part of Skagit County in 1960 by means of large dots, each dot representing three persons. (The average number of persons per household in Skagit County in 1960 was 3.12; for this reason there are more dots than there are houses.)

This map reveals not only the location and the distribution of the residents' homes throughout major cities and the most densely populated areas of the County; it also reveals the typical pattern of residential development in the rural areas -- the location of homes along section-line roads.

Analysis of the table in Map No. 2 reveals the census divisions that had a larger percent of increase than the County's average percent of increase (18.9%), and the census divisions that had less than the County average.

The rate of growth and the increasing migration of population into the urban areas in Skagit County are revealed in 40% of

*King, Kitsap, Pierce & Snohomish Counties

the total increase in population in this County during the 1950-1960 decade was in the County's four largest cities.

One-third of the County's population growth during that period was in Census Divisions 4, 12, 17 and 19.

The density of population, --the number of persons per square mile, or per acre, -- is increasing in the State and in Skagit County. In 1950 there were approximately 25 persons per square mile in this County. In 1960 there were approximately 30 persons per square mile.

A considerable portion of the 1,735 square miles in Skagit County is occupied by the National Forest, land not available for residential development. In the urbanizing areas in this County the density of population per square mile is higher than the State density of population. The proportion of persons living in urban and urbanizing areas in Skagit County (48.9%) is higher than in the State (42.8%).

The bulk of the population in Skagit County is concentrated in its cities and suburban areas. In the fringe areas of local cities and towns the grouping together of residents'

homes has developed an average density of approximately three families per acre.

Population characteristics of Skagit County residents have been analyzed in the report "Analysis of Population in Skagit County", which is an integral part of this Comprehensive Plan.

Anticipated

The methods that were used in developing population estimates in Skagit County are shown in Table 2. The most likely estimate in each of the five methods is indicated with an asterisk. The methods produced a wide range, -- from a low of 73,198 persons to a high of 101,738 persons. Final determination of anticipated 1985 population was made by taking the median of the five most likely estimates.

One of the most important factors to be considered in making population estimates is the ratio of labor force to total population. Throughout the United States, studies and analyses have shown that this ratio remains fairly constant, that total population in most communities varies in relation to total labor force, - an increase or decrease in the labor

TABLE 1
INCREASE IN POPULATION AND LABOR FORCE IN STATE AND SKAGIT COUNTY

	1900	1910	1920	1930	1940	1950	1960	1970	1980	1985
<u>Population</u>										
State of Washington	518103	1141990	1356621	1563396	1736191	2378963	2853214	3464827	4229920	4675274
Puget Sound Region*	196000	481000	634000	737000	818000	1196000	1468000	1917504	2438803	2749669
Skagit County	14272	29241	33373	35142	37650	43273	51350	63000	78400	87500
<u>Increase</u>										
State of Washington	-	623887	214631	206775	172795	642772	474251	791583	765093	445354
Puget Sound Region	-	285000	153000	103000	81000	378000	272000	404525	521299	310866
Skagit County	-	14969	4132	1769	2508	4623	8077	11650	15400	9100
<u>Percent of Increase</u>										
State of Washington	-	120.4	18.0	15.2	11.1	37.0	19.9	20.4	21.0	10.5
Puget Sound Region	-	68.7	31.8	16.2	11.0	46.2	22.7	25.2	25.6	12.8
Skagit County	-	104.9	14.1	5.3	7.1	14.7	18.9	18.5	19.6	10.4
<u>Ratios</u>										
<u>Percent of State Population</u>										
Puget Sound Region	37.8	42.1	46.7	47.5	48.0	50.2	50.3	55.3	57.7	58.8
Skagit County	2.7	2.6	2.5	2.2	2.2	1.8	1.8	1.8	1.9	1.9
<u>Percent of Region</u>										
Skagit County	7.5	6.0	5.2	4.8	4.5	3.6	3.5	3.3	3.2	3.2
<u>Percent of Skagit County</u>										
Anacortes					15.5	16.0	16.3	-	-	18.2
Burlington					4.3	5.4	5.8	-	-	5.6
Mount Vernon					11.4	12.0	15.4	-	-	17.9
Sedro-Woolley					8.0	7.6	7.2	-	-	5.6
<u>Population & Labor Force</u>										
<u>State of Washington</u>										
Population	-	-	1356621	1563396	1736191	2378963	2853214	3464827	4229920	4675274
Labor Force	-	-	-	-	716501	957611	1124979	1340988	1634289	1781286
% of Population	-	-	-	-	41.3	40.3	39.4	38.7	38.4	38.1
<u>Puget Sound Region</u>										
Population	-	-	-	737000	818000	1196000	1468000	1917504	2438803	2749669
Labor Force	-	-	-	-	344695	503937	612528	803434	1019419	1146611
% of Population	-	-	-	-	42.1	42.1	42.0	41.9	41.8	41.7
<u>Skagit County</u>										
Population	14272	29241	33373	35142	37650	43273	51350	63000	78400	87500
Labor Force	-	-	-	-	13739	15221	19061	22869	28459	31763
% of Population	-	-	-	-	36.5	35.2	37.1	36.3	36.3	36.3

*King, Kitsap, Pierce & Snohomish Counties

Sources of Data: Puget Sound Gov't Conference, U. S. Census

TABLE 2

METHODS USED IN ESTIMATING FUTURE POPULATION IN SKAGIT COUNTY

	1970 (3,464,827)	1980 (4,229,920)	1985 (4,675,274)
<u>Skagit County Percent of Anticipated State Population</u>			
Average percent 1900-1960 (2.26%) extended	78,305	95,596	105,661
Average percent last three decades (1.93%) extended	68,891	81,637	90,233
Percent in 1960 (1.8%) extended	62,367	76,139	84,155
Anticipated percentages: 1970(1.7%), 1980(1.8%), 1985(1.9%)	58,902	76,139	88,830*
<u>Ratio of Labor Force to Population in Skagit County</u>			
Yearly increase in labor force, 1940 to 1960 (266) extended	(21,721)	(24,381)	(25,711)
266 yearly increase in labor force extended at 36.3% (average ratio of labor force to population, 1940 to 1960)	59,837	67,165	70,826
Yearly increase in labor force (200) extended	(21,061)	(23,061)	(24,031)
200 yearly increase extended at 36.3% ratio	58,019	63,529	66,234
Yearly increase in labor force (300) extended	(22,061)	(25,061)	(26,531)
300 yearly increase extended at 36.3% ratio	60,774	69,039	73,198*
<u>Average Yearly Rate of Population Increase in Skagit County</u>			
Average yearly increase 1900-1960 (618) extended	57,530	63,710	66,802
Average yearly increase last 3 decades (540) extended	56,750	62,150	64,852
Yearly increase 1950-1960 (908) extended	60,430	69,510	74,052
Anticipated average yearly increase of 1000 extended	61,350	71,350	76,350*
<u>Percent of Increase in Population in Skagit County</u>			
Average percent of increase last 3 decades (13.5%) extended	58,282	66,150	70,615
Percent of increase 1950-1960 (18.9%) extended	60,952	72,350	79,110
Potential percent of increase 1965-1985 (20%) extended	61,620	73,944	81,338*
<u>Skagit County Percent of Anticipated Regional Population</u>			
Average percent 1930-1960 (4.1%) extended	78,618	99,991	112,736
Anticipated percentages: 1970(3.5%), 1980(3.6%), 1985(3.7%)	67,113	87,797	101,738*

*Asterisks indicate most likely estimate in each method

force producing a subsequent increase or decrease in total population. These studies also show that the labor force ratio is gradually decreasing as a result of two factors: (1) automation, (2) the gradually increasing proportion of oldsters (persons 65 years and older) and youngsters (persons 18 years and under).

Another important factor that was considered in developing population estimates was the established ratio of the County's population to the State population. During the last three decades Skagit County population has been approximately 1.93% of the total State population.

Population estimates regarding future State and Region Population, appearing in Table No. 1 have been made by the Puget Sound Governmental Conference. The estimates were compiled from studies made by the Transportation Study, State and Federal Census agencies, county and city planning directors.

Past, present and future ratio of State population to United States population has also been carefully prepared by population experts. The following are major assumptions upon which their estimates were based.

- a. The sharp increase in the ratio of Washington State's popula-

tion to the United States population from 1940 to 1950, resulting from changes induced by World War II, is not indicative of a long term rate of population growth for the State.

- b. The Washington State proportion of the United States population, however, will moderately increase during the forty years between 1960 and 2000, as the result of a continuing flow of population into the Southwest and West Coast areas of the United States.
- c. The relative historical geographic isolation of Washington State will be modified by increased development in Western Canada and Alaska, which may affect particularly the increase accruing in the decades from 1980 to 2000.

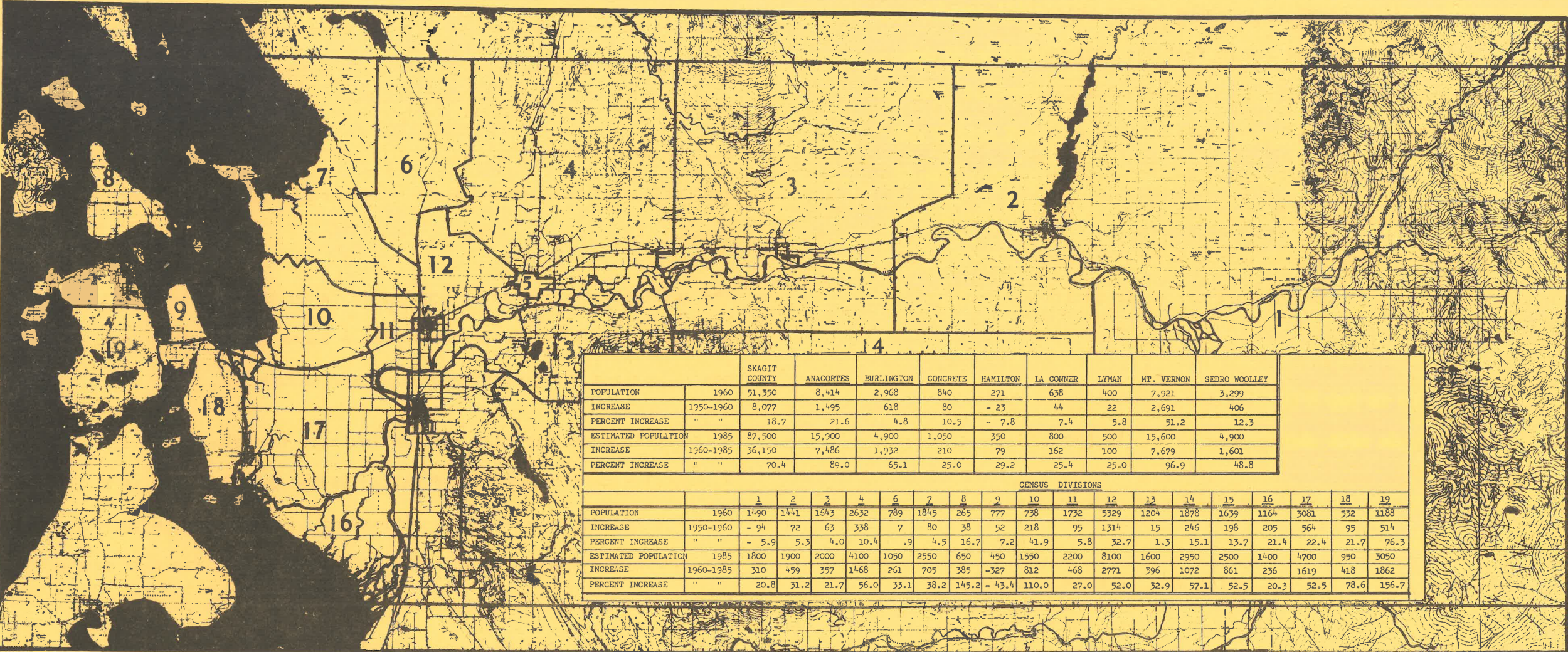
Assumptions upon which the planning consultant's estimates regarding future population in Skagit County, 1965-1985, are based on the following:

- a. Anticipated ratio of Skagit County to State of Washington population will gradually increase.
- b. The ratio of labor force to population in this County will remain at approximately 36.3%.
- c. Increase in the labor force will average approximately 3000 persons per decade during the next twenty-five years.
- d. The average yearly rate of increase in population during the next 20 years will be nearly 1000 persons per year, approximately a 20% increase per decade.

Implications

The anticipated 36,000 increase in population in Skagit County during the twenty-five year period, 1960-1985, will have these implications.

MAP 2



POPULATION IN SKAGIT COUNTY, BY CENSUS DIVISIONS

There will be approximately 11,500 new households, most of them in homes, -- only a small percentage in apartments.

Many of these homes will be new houses which will require, on an average 10,000 square foot lot, approximately 25,000 acres of residential land. Most of this residential development will be in the upland fringe areas of local cities and towns. With the exception of the waterfront areas, much of this new residential development in this County will be on the floodplains of the Skagit River, -- unless prevented by regulations in the interest of public health and public safety.

The areas in Map 2 showing the greatest gains during the last decade will absorb most of the 11,000 additional homes.

In the cities many of the new households that will be developed will be in apartments and in mobile homes. Considerable long range planning will be needed in regard to the location of these high-density residential areas and the provision of sanitary sewer, public water, and drainage facilities.

Economic analysis indicate that total retail sales in this County have been declining, while effective buying income per household has been increasing. This is a situation that is common in many counties and communities, -- existing commercial enterprises can absorb a considerable increase in sales volumes before new structures or new land areas will be needed. However many acres of land will be needed for commercial development by 1985. Many acres of land will also be required for new commercial off-street parking space.

The anticipated increase in population is in direct relation to an anticipated increase in the County's labor force. This implies new industries and expansion of existing industries.

Motor vehicle registration records indicate that the number of automobiles in all sections of United States is increasing at a faster rate than population is increasing. As a result, each year the number of persons per automobile is decreasing. For this reason it is assumed that the anticipated 36,000 increase in population in Skagit County implies an additional 25,000 vehicles on county and city highways and streets by 1985.

These additional automobiles and trucks will require a considerable increase in off-street parking areas for new and existing schools, churches, lodges and particularly for commercial and industrial enterprises.

The 36,000 additional persons in this County, at 3.12 persons per household, will include approximately 13,800 children.

This number of new pupils implies many new classrooms, as well as some new school buildings, particularly in the cities and suburban areas where most of the population growth will occur. This situation now exists in the Burlington School District. These additional children will also require new playgrounds,

playfields and neighborhood parks and, in many communities, enlargement of existing playgrounds and neighborhood parks that are undersized and inadequate.

Considering the fact that the bulk of the increase in population in this County will occur in concentrated residential areas on waterfront property, and in suburban areas soils composed of clay, hardpan, all of which are generally unsuited for septic tanks, it will be necessary to provide sewage disposal facilities more effective than septic tanks in order to avoid potential problems of public health and nuisance.

TABLE 8

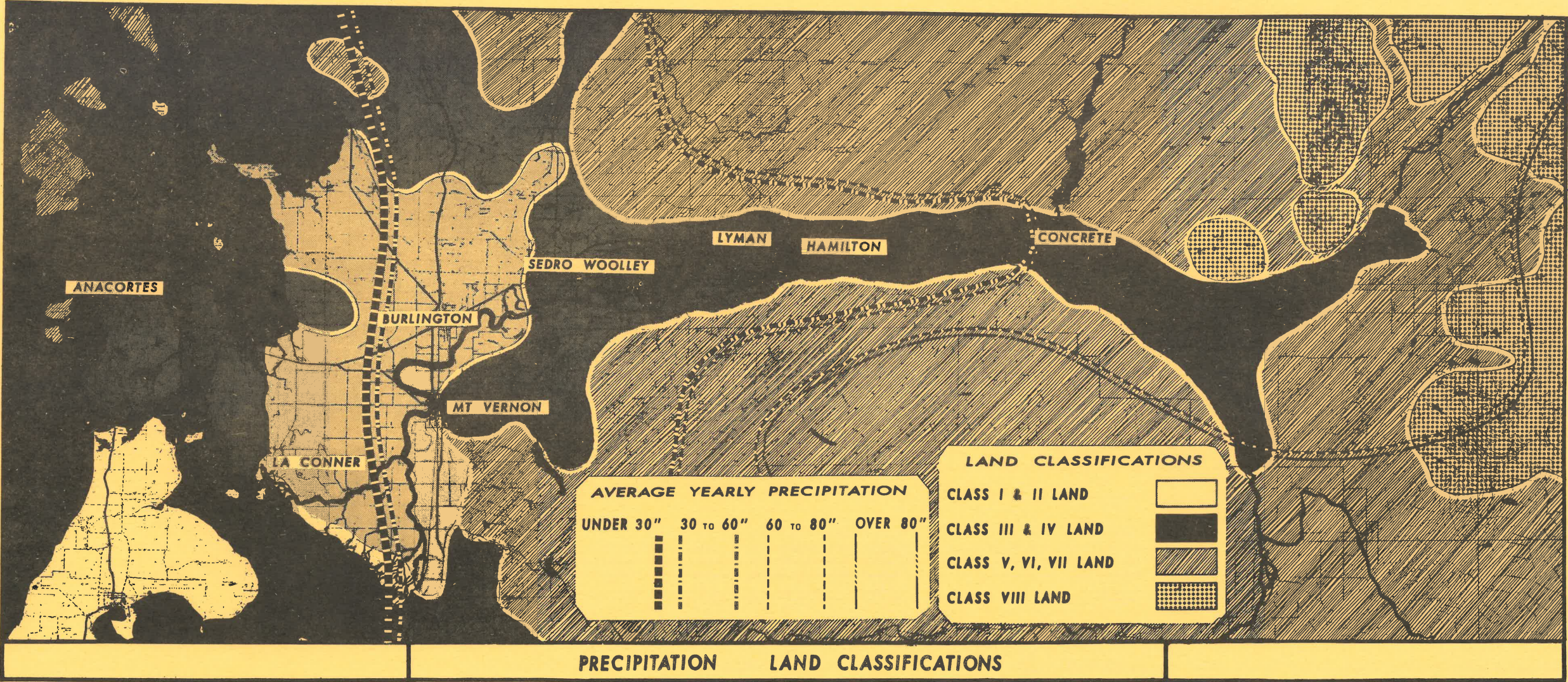
POPULATION TRENDS AND FORECASTS BY COUNTIES, ECONOMIC AREAS, AND OTHER COUNTY GROUPINGS

Washington: 1930 to 1985

Area	Medium Forecast Population					Enumerated Population			
	1985	1980	1975	1970	1965	1960	1950	1940	1930
State	4,488,945	4,086,385	3,714,617	3,386,613	3,107,249	2,853,214	2,378,963	1,736,191	1,563,396
West	3,222,489	2,930,300	2,661,834	2,425,353	2,223,602	2,039,357	1,679,670	1,216,529	1,103,899
East	1,266,240	1,155,946	1,052,696	961,215	883,627	813,857	699,285	519,662	459,497
Metropolitan	2,784,291	2,517,018	2,273,201	2,060,131	1,877,099	1,737,136	1,342,009	940,467	856,697
Non-Metropolitan	1,705,145	1,570,145	1,442,423	1,327,290	1,230,461	1,116,078	1,036,954	795,724	706,699
Puget Basin	2,950,275	2,582,910	2,338,247	2,123,072	1,938,272	1,758,117	1,413,422	1,007,116	909,933
King-Kitsap- Pierce-Snohomish	2,468,672	2,231,967	2,016,030	1,826,699	1,663,833	1,512,979	1,196,172	820,202	736,996
Economic Area 1	175,203	163,383	152,274	142,352	134,585	128,477	127,073	115,749	117,669
Grays Harbor	74,374	69,230	64,455	60,232	56,990	54,465	53,644	53,166	59,982
Clallam	43,680	40,398	37,272	34,415	32,035	30,022	26,396	21,848	20,449
Mason	22,529	21,048	19,568	18,259	17,183	16,251	15,022	11,603	10,060
Pacific	17,955	17,066	16,230	15,481	14,977	14,674	13,558	16,928	14,970
Jefferson	12,247	11,562	10,889	10,302	9,897	9,639	11,618	8,918	8,346
Wahkiakum	4,394	4,141	3,914	3,711	3,550	3,426	3,635	4,286	3,862
Economic Area 2	214,839	197,742	181,776	167,390	155,057	144,177	124,330	107,260	102,736
Whatcom	95,377	89,347	83,680	78,478	74,048	70,317	66,733	60,355	59,128
Skagit	75,960	69,871	64,260	59,287	55,093	51,250	48,273	37,650	35,142
Island	40,404	35,414	30,814	26,707	23,050	19,638	11,079	6,093	5,369
San Juan	3,244	3,145	3,050	2,954	2,895	2,872	3,245	3,157	3,097
Economic Area 3	113,316	110,405	102,849	95,682	89,443	84,176	75,724	44,387	30,776
Kitsap	113,316	110,405	102,849	95,682	89,443	84,176	75,724	44,387	30,776

*Source: State Department of Commerce and Economic Development, March 1965.

MAP 3



DENSITIES OF POPULATION

Existing Densities

The major factor that determines the density of population, the average number of families per acre, is the size of residential building sites. The majority of lots in areas in the unincorporated territory in Skagit County range from 4,200 sq. ft. to 20,000 sq. ft. Lot widths range from 30 feet to over 200 feet.

Existing densities of population in this County range from four families per acre in the vicinity of local cities and towns to an average of one family per six acres of the usable land in the rural areas.

Trends & Problems

The trend toward rambler homes and outdoor patios has led to the demand for wider lots than the 60 foot lots that prevail in some of the older subdivisions near existing city limits. As a result, the majority of lot widths in new subdivisions are 80 feet and wider. This trend toward larger lot widths results in fewer families per acre, -- and a correspondingly lower density of population.

In this County considerable areas of land have been subdivided into plats in which many of the building sites have not been able to provide satisfactory septic tank drainfields. As a result of this practice many residential districts in suburban areas are having septic tank problems. These high density areas should have been low density areas.

Drainfield Study

To meet these problems and these trends the soil classifications in the 1960 soil survey of the Department of Agriculture and the Agricultural Experiment Station were analyzed and regrouped by the County Planner, in conjunction with the County Sanitarian. In this project their objective was to classify the land in Skagit County according to its ability to act as a drainfield for septic tank sewage disposal.

As a result of this study special charts were prepared indicating

(1) four major drainfield classifications:

- Good to Fair - Poor to Unsuitable
- Fair to Poor - Unsuitable

(2) methods that were used in determining the classifications,

(3) recommendations regarding use of the various soils for drainfields.

Maps identifying the land according to the four classifications were prepared by the Planning Consultant.

It is important to note that the (1) classifications and the recommendations contained in this Drainfield Study are general only, (2) the data pertains to large general areas and is not necessarily specific and precise, (3) soil conditions may vary somewhat within relatively short distances, (4) more complete and precise data should be obtained by conducting tests on any particular site.

The following is emphasized:

- Health Department and planning considerations are only guided by this study
- This survey does not eliminate the need to conduct tests for each individual site

As a result of this study, however, the suitability of the soil as a drainfield for septic tank sewage disposal has been classified and identified in the various sections and communities throughout Skagit County.

Objectives

It is an objective of this element of the Plan to guard against the dangers of unhealthful environmental conditions that cause residential blight and deterioration, and other adverse effects of undue concentration of population.

It is an objective of this element of the Plan that the Drainfield classification and identification of land will provide a guide and a blueprint in regard to future densities of population as far as unsewered population concentrations.

Density Plan

It is proposed that the County Planning Commission and the Board of County Commissioners should use the Drainfield classifications in Tables 4 through 9, and land identifications in Map No. 4 as a guide and a point of reference when considering future subdivision of land and future land development in Skagit County.

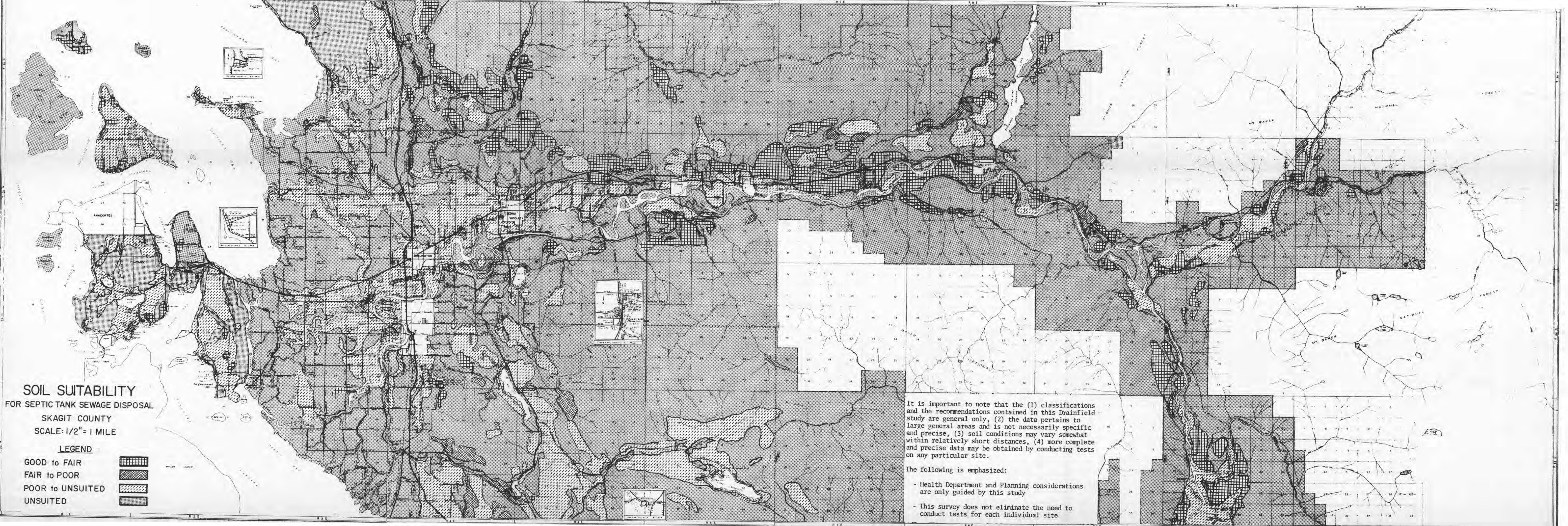
It is proposed that future densities of population in Skagit County will be maintained somewhat as follows:

<u>Drainfield Classification</u>	<u>Proposed Range in Densities of Population</u>
"Good to Fair"	3-5 families per acre
"Fair to Poor"	1 or 2 families per acre
"Poor to Unsited"	1 or fewer families per acre
"Unsited"	None, unless connected to sewers, or unless provisions are made to provide a drainfield that will meet County sanitation requirements.

Implementation

To carry out the objectives of this Plan and to maintain the densities proposed, it is the intent of this Plan that:

- Zoning regulations should be guided by the Drainfield classifications and land identifications study.
- In all future subdivision of land, approval should be guided by the classifications and recommendations.
- Building and septic tank permits shall be required prior to construction.



SOIL SUITABILITY
FOR SEPTIC TANK SEWAGE DISPOSAL
SKAGIT COUNTY
SCALE: 1/2" = 1 MILE

- LEGEND**
- | | |
|------------------|--|
| GOOD to FAIR | |
| FAIR to POOR | |
| POOR to UNSUITED | |
| UNSUITED | |

It is important to note that the (1) classifications and the recommendations contained in this Drainfield study are general only, (2) the data pertains to large general areas and is not necessarily specific and precise, (3) soil conditions may vary somewhat within relatively short distances, (4) more complete and precise data may be obtained by conducting tests on any particular site.

- The following is emphasized:
- Health Department and Planning considerations are only guided by this study
 - This survey does not eliminate the need to conduct tests for each individual site

SOIL TYPE		SOIL PROFILE			SOIL DEPTH			TABLE 4 SOIL DRAINAGE CHARACTERISTICS				SLOPE OF SOIL		OCCURRENCE OF HIGH WATER TABLE		REMARKS, RECOMMENDATIONS				
SOIL SYMBOL	SOIL DESCRIPTION	SURFACE SOIL	SUBSOIL	SUBSTRATUM	DEPTH OF SURFACE SOIL	DEPTH OF SUBSOIL	DEPTH TO SUBSTRATUM	NATURAL DRAINAGE	SURFACE RUNOFF	INTERNAL PERMEABILITY	CAPACITY FOR HOLDING WATER	GOOD FOR RESIDENTIAL 0-15%	VERY STEEP FOR RESIDENTIAL & ROADS 15-30%	TOO STEEP FOR RESIDENTIAL & ROADS 30% & OVER	NONE		CONTINUAL IN FALL, WINTER AND SPRING	INTERMITTENT	IN WINTER	INTERMITTENT IN WINTER
Gk	GREENWATER LOAMY SAND 0-3% SLOPES	GRAY LOAMY SAND	COARSE LOAMY SAND	COARSE SAND	¾"-2"	2"-24"	24"	SOMEWHAT EXCESSIVE	VERY SLOW	VERY RAPID	LOW	X			X					VERY DROUGHTY, NEED TO CONSIDER POLLUTION OF WELLS BY SEPTIC SYSTEM, SEPTIC TANK DRAINFIELD SHOULD DRAIN AWAY FROM WELLS & BE AT LEAST 50'-100' DISTANCE
Gm	GREENWATER LOAMY SAND 3-8% SLOPES	"	"	"	"	"	"	"	"	"	"	X			X					
Gn	GREENWATER LOAMY SAND 8-15% SLOPES	"	"	"	"	"	"	"	"	"	"	X			X					
Go	GREENWATER SANDY LOAM 0-3% SLOPES	SANDY LOAM	SANDY LOAM	SANDY LOAM	"	"	"	"	"	"	"	X			X					
Lc	LYNDEN GRAVELLY LOAM 0-3% SLOPES	GRAVELLY LOAM	GRAVELLY SANDY LOAM	GRAVELLY SANDY LOAM	8"-10"	10"-12"	12"±	"	"	RAPID	MODERATELY LOW	X			X					
Ld	LYNDEN GRAVELLY LOAM 3-8% SLOPES	"	"	"	"	"	"	"	"	"	"	X			X					
Le	LYNDEN LOAM 0-3% SLOPES	LYNDEN LOAM	"	"	"	"	"	"	"	MEDIUM	"	X			X					
Lf	LYNDEN LOAM 3-8% SLOPES	"	"	"	"	"	"	"	"	"	"	X			X					
Lg	LYNDEN LOAMY SAND 0-3% SLOPES	LYNDEN LOAMY SAND	"	"	"	"	"	"	"	"	"	X			X					
Lh	LYNDEN LOAMY SAND 3-8% SLOPES	"	"	"	"	"	"	"	"	"	"	X			X					
Lk	LYNDEN LOAMY SAND 8-15% SLOPES	"	"	SANDY GLACIAL OUTWASH	"	"	"	"	"	"	"	X			X					
Lm	LYNDEN SANDY LOAM 0-3% SLOPES	LYNDEN SANDY LOAM	"	"	"	"	"	"	"	"	MODERATELY LOW	X			X					
Ln	LYNDEN SANDY LOAM 3-8% SLOPES	"	"	"	"	"	"	"	"	"	"	X			X					
Sv	SKYKOMISH GRAVELLY SANDY LOAM 3-8%	VERY FRIABLE SANDY LOAM	"	"	4"-10"	10"-24"	24"	"	"	VERY RAPID	LOW	X			X					
Sw	SKYKOMISH GRAVELLY SANDY LOAM 8-15%	"	"	"	"	"	"	"	"	"	"	X			X					
Ea	EVERETT COBBLY SANDY LOAM 0-3%	GRAVELLY SANDY LOAM	"	GRAVELLY SANDY LOAM	4"-8"	8"-30"	30"	"	VERY SLOW	"	"	X								
Eb	EVERETT GRAVELLY SANDY LOAM 0-3%	"	"	"	"	"	"	"	"	"	"	X								
Ec	EVERETT GRAVELLY SANDY LOAM 3-8%	"	"	"	"	"	"	"	"	"	"	X								
Ed	EVERETT GRAVELLY SANDY LOAM 8-15%	"	"	"	"	"	"	"	"	"	"	X								
Ia	INDIANOLA LOAMY SAND 3-8% SLOPES	FRIABLE LOAMY SAND	LOOSE LOAMY SAND	LOOSE SAND	6"-10"	10"-24"	24"±	"	"	"	"	X								
Ib	INDIANOLA LOAMY SAND 8-15% SLOPES	"	"	"	"	"	"	"	"	"	"	X								
Ic	INDIANOLA SANDY LOAM 3-8% SLOPES	SANDY LOAM	"	SANDY GLACIAL DRIFT	8"	-	-	"	SLOW	VERY RAPID	MODERATELY LOW	X			X					
Ka	KLAUS GRAVELLY LOAM 0-3% SLOPES	GRAVELLY LOAM	GRAVELLY LOAM	GRAVELLY SANDY GLACIAL DRIFT	1"-6"	6"-10"	10"-24"	"	VERY SLOW	RAPID	"	X			X					
Kb	KLAUS GRAVELLY LOAM 3-8% SLOPES	"	"	"	"	"	"	"	SLOW	"	"	X			X					
Kc	KLAUS GRAVELLY LOAM 8-15% SLOPES	"	"	"	"	"	"	"	SLOW TO MEDIUM	"	"	X			X					
Ke	KLAUS GRAVELLY SANDY LOAM 0-3%	GRAVELLY SANDY LOAM	"	"	"	"	"	"	VERY SLOW	VERY RAPID	LOW	X			X					
Kf	KLAUS GRAVELLY SANDY LOAM 3-8%	"	"	"	"	"	"	"	"	"	"	X			X					
Kg	KLAUS GRAVELLY SANDY LOAM 8-15%	"	"	"	"	"	"	"	"	"	"	X			X					
Kk	KLAUS SANDY LOAM 0-3% SLOPES	SANDY LOAM	"	"	"	"	"	"	"	RAPID	"	X			X					
Km	KLAUS SANDY LOAM 3-8% SLOPES	"	"	"	"	"	"	"	"	"	"	X			X					
Xn	KLAUS SANDY LOAM 8-15% SLOPES	"	"	"	"	"	"	"	SLOW	"	"	X			X					
Te	THORNWOOD GRAVELLY LOAM 0-3%	GRAVELLY LOAM	GRAVELLY SANDY LOAM	GLACIAL DRIFT WITH MICA SCHIST	8"-12"	12"-24"	24"±	"	VERY SLOW	"	MODERATELY LOW	X			X					
Tf	THORNWOOD GRAVELLY LOAM 3-8%	"	"	"	"	"	"	"	SLOW	"	"	X			X					
Tg	THORNWOOD GRAVELLY LOAM 8-15%	"	"	"	"	"	"	"	SLOW TO MEDIUM	"	"	X			X					
Tk	THORNWOOD GRAVELLY SANDY LOAM 0-3%	GRAVELLY SANDY LOAM	"	"	"	"	"	"	VERY SLOW	VERY RAPID	LOW	X			X					
Tm	THORNWOOD GRAVELLY SANDY LOAM 3-8%	"	"	"	"	"	"	"	"	"	"	X			X					
Tn	THORNWOOD GRAVELLY SANDY LOAM 8-15%	"	"	"	"	"	"	"	"	"	"	X			X					
Wa	WICKERSHAM SHALY LOAM 0-3%	SHALY LOAM	SHALY LOAM	SHALY LOAM	6"-10"	10"-24"	24"	GOOD	"	MEDIUM	"	X			X					
Wb	WICKERSHAM SHALY LOAM 3-8%	"	"	"	"	"	"	"	SLOW	"	"	X			X					
Wc	WICKERSHAM SHALY SILT LOAM 0-3%	SHALY SILT LOAM	"	"	"	"	"	"	"	"	MODERATE	X			X					
Wd	WICKERSHAM SHALY SILT LOAM 3-8%	"	"	"	"	"	"	"	"	"	"	X			X					
C5	CORKINDALE LOAM 0-3% SLOPES	YELLOWISH-RED LOAM	YELLOWISH-RED FRIABLE LOAM	LOOSE GRAVELLY SAND	0"-12"	12"-20"	20"-24"	GOOD TO SOMEWHAT EXCESSIVE	VERY SLOW	RAPID	MODERATELY LOW	X			X					
C6	CORKINDALE LOAM 3-8% SLOPES	"	"	"	"	"	"	"	VERY SLOW TO SLOW	"	"	X			X					
C7	CORKINDALE LOAM 8-15% SLOPES	"	"	"	"	"	"	"	SLOW	"	"	X			X					
Ga	GILES LOAM 0-3% SLOPES	FRIABLE SILT LOAM	SILT & SANDY LOAM	GLACIAL OUTWASH	6"-10"	10"-50"	50"±	GOOD	VERY SLOW	MEDIUM	MODERATE	X			X					
Gb	GILES LOAM 3-8% SLOPES	"	"	"	"	"	"	"	SLOW	"	"	X			X					
Gc	GILES SILT LOAM 0-3% SLOPES	"	"	"	"	"	"	"	VERY SLOW	"	MODERATELY HIGH	X			X					
Gd	GILES SILT LOAM 8-15% SLOPES	"	"	"	"	"	"	"	SLOW TO MEDIUM	"	"	X			X					
Ge	GILLIGAN GRAVELLY LOAM, MODERATELY SHALLOW, 0-3%	0-3% GRAVELLY LOAM	GRAVELLY LOAM	GRAVELLY LOAM	6"-10"	10"-40"	40"±	MODERATELY GOOD	VERY SLOW	"	MODERATE	X			X					
Sf	GILLIGAN LOAM 0-3% SLOPES	FRIABLE LOAM	SILT LOAM	GLACIAL OUTWASH	"	"	"	"	"	"	"	X			X					
Gg	GILLIGAN SILT LOAM 0-3% SLOPES	"	"	"	"	"	"	"	"	"	MODERATELY HIGH	X			X					
Gh	GILLIGAN SILT LOAM, MOD. SHALLOW, 0-3%	"	"	"	"	"	"	"	"	"	MODERATE	X			X					
Sc	SAUK LOAM 0-3% SLOPES	YELLOW-RED FRIABLE LOAM	FINE SILT LOAM	"	2"-8"	8"-18"	18"±	GOOD	"	"	"	X			X					
Sd	SAUK LOAM 3-8% SLOPES	"	"	"	"	"	"	"	SLOW	"	"	X			X					

SOIL SUITABILITY FOR SEPTIC TANK SEWAGE DISPOSAL GOOD TO FAIR

SOIL TYPE		SOIL PROFILE			TABLE 5 SOIL DRAINAGE CHARACTERISTICS				SLOPE OF SOIL		OCCURRENCE OF HIGH WATER TABLE					REMARKS, RECOMMENDATIONS
SOIL SYMBOL	SOIL DESCRIPTION	SURFACE SOIL	SUBSOIL	SUBSTRATUM	DEPTH OF SURFACE SOIL	DEPTH OF SUBSOIL	DEPTH TO SUBSTRATUM	NATURAL DRAINAGE	SURFACE RUNOFF	INTERNAL PERMEABILITY	CAPACITY FOR HOLDING WATER	GOOD FOR RESIDENTIAL 0-15%	VERY STEEP FOR RESIDENTIAL & ROADS 15-30%	TOO STEEP FOR RESIDENTIAL & ROADS 30% & OVER	NONE CONTINUAL IN FALL, WINTER AND SPRING INTERMITTENT IN WINTER INTERMITTENT IN WINTER	
S8	SULTAN LOAM 0-3% SLOPES	FRIABLE LOAM	FRIABLE LOAM	VERY FINE SANDY LOAM	6"-12"	12"-36"	36"+	MODERATELY GOOD	VERY SLOW	"	"	X				NEED HOMES ON FOUNDATIONS & LOTS ELEVATED & GRADED TO DRAIN INTO STREET AND/OR DRAINAGE SYSTEM
S9	SULTAN LOAMY SAND 0-3% SLOPES	LOAMY SAND	LOOSE LOAMY SAND	" " "	"	"	"	GOOD	"	"	"	X				
S7	SULTAN FINE SANDY LOAM 0-3% SLOPES	FINE SANDY LOAM	SANDY LOAM	" " "	"	"	"	MODERATELY GOOD	"	"	"	X				" " " " " "
S6	SAXON SILT LOAM 3-8% SLOPES	FRIABLE SILT LOAM	HEAVY SILT LOAM	SILT LOAM SILTY CLAY	6"-14"	14"+	14"+	GOOD	SLOW	"	MODERATELY HIGH	X				
SF	SAXON SILT LOAM 8-15% SLOPES	" " "	" " "	" " "	"	"	"	"	SLOW TO MEDIUM	"	"	X				SAME AS Wa
Pm	PUYALLUP LOAMY SAND OVER PUGET SOIL MATERIAL, 0-3% SLOPES	LOAMY SAND OVER PUGET SOIL MATERIAL (CLAY)	LOAMY SAND OVER PUGET SOIL MATERIAL	MIXED ALLUVIAL & GLACIAL FLOUR OVER FINE TEXTURED PUGET SOIL MATERIAL	6"-18"	18"-30"	30"+	"	VERY SLOW	VERY RAPID TO CLAY SUBSTRATUM THEN VERY SLOW	MODERATELY LOW	X				
																SAME AS Wa
																SAME AS S7, S8 AND S9.

SOIL SUITABILITY FOR SEPTIC TANK SEWAGE DISPOSAL

GOOD TO FAIR

Ca	CAGEY GRAVELLY FINE SANDY LOAM 0-3% SLOPES	GRAVELLY FINE SANDY LOAM	GRAVELLY SANDY LOAM	HARDPAN	8"-14"	14"-36"	36"-60"	MODERATE GOOD	VERY SLOW	RAPID TO HARDPAN THEN VERY SLOW IN HARDPAN	MODERATE	X				HARDPAN 30"-60", NEED FILL FOR LOTS WHERE HARDPAN IS ABOVE 48". DEPTH TO HARDPAN NOT SO UNIFORM, NEED FILL & CAREFUL INSTALLATION OF SEPTIC TANKS. DANGER OF POLLUTION-CONTAMINATION OF WATERTABLE & WELLS BY LATERAL MOVEMENT OF SEWAGE EFFLUENT OVER BEDROCK WHERE SOIL OVER BEDROCK IS SHALLOW. NEED CAREFUL CONSIDERATION OF SEPTIC TANK-WELL LOCATIONS.
	Cb CAGEY GRAVELLY FINE SANDY LOAM 3-8% SLOPES	CLAY LOAM	HEAVY OR SANDY CLAY LOAM	SOFT SHALE FRAGMENTS GLACIAL MATERIALS	to 24"	24"-36"	36"+	GOOD	SLOW TO MEDIUM	MEDIUM	MODERATE HIGH	X				
	Ck CATHCART GRAVELLY LOAM 3-8% SLOPES	GRAVELLY LOAM	CLAY LOAM	OVERLYING ARKOSE SANDSTONE	"	"	"	"	SLOW	"	MODERATE	X				
	Cm CATHCART GRAVELLY LOAM 8-15% SLOPES	"	GRAVELLY LOAM	"	"	"	"	"	SLOW TO MEDIUM	"	"	X				
C6	CATHCART LOAM 3-8% SLOPES	SANDY LOAM	FINE SANDY LOAM	SOFT SANDSTONE & FINE SANDY LOAM	6"-14"	14"-50"	50"+	"	SLOW	"	"	X				" " " " " "
Cp	CATHCART LOAM 8-15% SLOPES	"	"	"	"	"	"	"	SLOW TO MEDIUM	"	"	X				
Ha	HEISLER GRAVELLY LOAM 3-8% SLOPES	GRAVELLY LOAM	GRAVELLY OR CLAY LOAM	STONY FILL	6"-10"	10"-30"	30"-50"	"	SLOW	"	"	X				
Hb	HEISLER GRAVELLY LOAM 8-15% SLOPES	"	"	GLACIAL FILL	"	"	"	"	SLOW TO MEDIUM	"	"	X				
Sr	SKYKOMISH COBBLY SANDY LOAM 0-3% SLOPES	VERY FRIABLE	VERY FRIABLE	GRAVEL & SAND	4"-10"	10"-24"	24"+	SOMEWHAT EXCESSIVE	VERY SLOW	VERY RAPID	LOW	X				STONY & DROUGHTY, NOT SUITED TO CULTIVATION, NEED TO PROTECT WELL & WATER TABLE FROM SEWAGE EFFLUENT BY CAREFUL CONSIDERATION OF SLOPES & DISTANCE BETWEEN WELL & SEPTIC SYSTEM.
	Ss SKYKOMISH COBBLY SANDY LOAM 3-8% SLOPES	COBBLY SANDY LOAM	COBBLY SANDY LOAM	"	"	"	"	"	"	"	"	X				
	St SKYKOMISH COBBLY SANDY LOAM 8-15% SLOPES	"	"	"	"	"	"	"	"	"	"	X				
	S12 SULTAN SILT LOAM 0-3% SLOPES	FRIABLE SILT LOAM	FRIABLE SILT LOAM	FRIABLE SILT LOAM	6"-12"	12"-36"	36"+	MODERATE GOOD	"	MEDIUM	MODERATE HIGH	X				
Ma	MADE LAND	SANDY DREGGED MATERIAL	MADE LAND	VARIETY OF MATERIALS	-	-	-	-	-	-	-	-	-	-	-	MISCELLANEOUS LAND TYPE, CONSISTS OF SANDY MATERIAL DREGGED FROM SWINOMISH SLOUGH, LARGEST AREA OCCURS ALONG SWINOMISH SLOUGH.
Ba	BELFAST SILT LOAM 0-3% SLOPES	FRIABLE GRANULAR SILT LOAM	FIRM SILT LOAM	COARSE GLACIAL ALLUVIAL SEDIMENTS	6"-8"	8"-18"	18"+	MOD. GOOD TO GOOD	MEDIUM	MEDIUM	MODERATE HIGH	X				OCCASIONALLY FLOODED, THIS GROUP SOMEWHAT EXCESSIVELY DRAINED TO MODERATELY WELL DRAINED, WATER STANDS AT OR NEAR THE SURFACE INTERMITTENTLY IN WINTER, SOME ARTIFICIAL DRAINAGE NEEDED IN PLACES, HOMES NEED TO BE ON FOUNDATIONS & LOTS ELEVATED & SLOPED TO DRAIN INTO STREET & DRAINAGE SYSTEM.
Kp	KLINE GRAVELLY LOAM 1-3% SLOPES	GRAVELLY LOAM	GRAVELLY SANDY LOAM	COARSE SANDY GRAVELLY LOAM	6"	6"-24"	24"+	GOOD	VERY SLOW	"	MODERATE	X				
Kr	KLINE GRAVELLY LOAM 3-8% SLOPES	"	"	"	"	"	"	"	SLOW	"	"	X				
Ka	KLINE LOAM 1-3% SLOPES	FRIABLE SILT LOAM	FRIABLE SILT LOAM	SANDY LOAM	6"	6"-12"	12"-30"	"	VERY SLOW	"	MODERATE HIGH	X				
Kt	KLINE LOAM 3-8% SLOPES	"	"	"	"	"	"	"	SLOW	"	"	X				" " " " " "
Kw	KLINE SANDY LOAM 1-3% SLOPES	SANDY LOAM	SANDY LOAM	"	"	"	"	"	VERY SLOW	RAPID	MOD. LOW	X				
Kv	KLINE SILT LOAM 1-3% SLOPES	FRIABLE SILT LOAM	FRIABLE SILT LOAM	FRIABLE SILT LOAM	6"-12"	12"-36"	36"+	"	SLOW	MEDIUM	MOD. HIGH	X				
Ct	CATHCART STONY LOAM 8-15% SLOPES	STONY LOAM	SANDY STONY LOAM	SANDSTONE-STONY SANDY LOAM	"	"	"	"	SLOW TO MEDIUM	"	MODERATE	X				

SOIL SUITABILITY FOR SEPTIC TANK SEWAGE DISPOSAL

FAIR TO POOR

SOIL TYPE		SOIL PROFILE			SOIL DEPTH			SOIL DRAINAGE CHARACTERISTICS				SLOPE OF SOIL		OCCURRENCE OF HIGH WATER TABLE		REMARKS, RECOMMENDATIONS
SOIL SYMBOL	SOIL DESCRIPTION	SURFACE SOIL	SUBSOIL	SUBSTRATUM	DEPTH OF SURFACE SOIL	DEPTH OF SUBSOIL	DEPTH TO SUBSTRATUM	NATURAL DRAINAGE	SURFACE RUNOFF	INTERNAL PERMEABILITY	CAPACITY FOR HOLDING WATER	GOOD FOR RESIDENTIAL 0-15%	VERY STEEP FOR RESIDENTIAL & ROADS 15-30%	TOO STEEP FOR RESIDENTIAL & ROADS 30% & OVER	NONE CONTINUAL IN FALL, WINTER AND SPRING INTERMITTENT IN WINTER INTERMITTENT IN WINTER	
S2	SQUALICUM GRAVELLY SILT LOAM 0-3% SLOPES	GRAVELLY SILT LOAM	GRAVELLY SILT LOAM	HARDFAN	8"-12"	12"-30"	30"+	GOOD	VERY SLOW	MEDIUM TO HARDFAN THEN VERY SLOW	MODERATE	X			X	HARDFAN, DEPTH 14"-48", NEED FILL IN AREAS WHERE SOIL IS SHALLOW ABOVE HARDFAN, NEED 48" OR MORE SOIL OVER HARDFAN IN ORDER TO TREAT EFFLUENT SAFELY BEFORE IT ENTERS WATER TABLE & WELLS. DANGER OF SEWAGE EFFLUENT SURFACING & CREATING HEALTH & NUISANCE HAZARD IF NOT FILLED. DANGER OF WATER TABLE WELL POLLUTION-CONTAMINATION BY LATERAL MOVEMENT OF SEWAGE OVER HARDFAN IF NOT FILLED.
S3	SQUALICUM GRAVELLY SILT LOAM 3-8%	" " "	" " "	"	" " "	" " "	"	"	SLOW	"	"	X			X	
S4	SQUALICUM GRAVELLY SILT LOAM 8-15%	" " "	" " "	"	" " "	" " "	"	"	SLOW TO MEDIUM	"	"	X			X	
Aa	ALDERWOOD GRAVELLY LOAM 0-3% SLOPES	" SANDY LOAM	" SANDY LOAM	"	6"-8"	8"-14"	14"-40"	"	VERY SLOW	"	"	X			X	
Ab	ALDERWOOD GRAVELLY LOAM 3-8% SLOPES	" " "	" " "	"	" " "	" " "	"	"	SLOW	"	"	X			X	
Ac	ALDERWOOD GRAVELLY LOAM 8-15% SLOPES	" " "	" " "	"	" " "	" " "	"	"	SLOW TO MEDIUM	"	"	X			X	
Af	ALDERWOOD GRAVELLY SANDY LOAM 0-3%	" " "	" " "	"	" " "	" " "	"	"	SLOW	"	"	X			X	
Cc	CAGEY GRAY, SANDY LOAM, MOD. SHALLOW, 0-3%	" " "	" " "	"	" " "	" " "	14"-48"	MOD. GOOD	VERY SLOW	"	"	X			X	
Cd	CAGEY GRAY, SANDY LOAM, MOD. SHALLOW, 3-8%	" " "	LOOSE GRAY, SANDY LOAM	"	8"-14"	14"-30"	30"-60"	"	SLOW	"	"	X			X	
Ag	ALDERWOOD GRAVELLY SANDY LOAM, 3-8%	" " "	GRAVELLY SANDY LOAM	"	6"-8"	8"-14"	14"-48"	GOOD	"	"	"	X			X	
Ah	ALDERWOOD GRAVELLY SANDY LOAM, 8-15%	" " "	" " "	"	" " "	" " "	"	"	SLOW TO MEDIUM	"	"	X			X	STEEL, STONY, SOME BEDROCK, SANDSTONE AND/OR COMPACT TILL IN SOME AREAS, NEED FILL IN SHALLOW AREAS & NEED TO PREVENT WATER TABLE-Well CONTAMINATION BY SEWAGE. HARDFAN, NEED FILL IN SHALLOW SOIL AREAS & PREVENTION OF WATER TABLE-Well POLLUTION-CONTAMINATION.
Ce	CAGEY GRAY, SANDY LOAM, MOD. SHALLOW, 8-15%	FINE SANDY GRAY LOAM	LOOSE GRAY, SAND	"	8"-36"	36"-50"	54"	MOD. GOOD	SLOW	"	MOD. LOW	X			X	
Ad	ALDERWOOD GRAVELLY LOAM, 15-30% SLOPES	FRIABLE GRAY, LOAM	FRIABLE GRAY, LOAM	"	6"-8"	8"-14"	14"-24"	GOOD	MEDIUM	"	"		X		X	
Ak	ALDERWOOD GRAVELLY SANDY LOAM, 15-30%	FRIABLE GRAY, SANDY LOAM	FRIABLE GRAVELLY SANDY LOAM	"	"	"	"	SOMEWHAT EXCESSIVE	MEDIUM	"	"		X		X	
Cn	CATHCART GRAVELLY LOAM, 15-30% SLOPES	FRIABLE GRAY, LOAM	FINE GRAY, LOAM	GLACIAL DRIFT & TALUS RUBBLE OVER SANDSTONE	1"-24"	24"-60"	60"+	GOOD	"	MEDIUM	MODERATE	X			X	
Sm	SKIYOU GRAVELLY LOAM, 3-8% SLOPES	" " "	GRAVELLY SANDY LOAM	HARDFAN	6"-10"	10"-30"	30"	"	SLOW	MEDIUM TO HARDFAN THEN VERY SLOW	"	X			X	
Sn	SKIYOU GRAVELLY LOAM, 8-15% SLOPES	" " "	" " "	"	" " "	" " "	"	"	SLOW TO MEDIUM	"	"	X			X	
C8	CORKINDALE LOAM, 15-30% SLOPES	YELLOW-RED LOAM	GRAVELLY LOAM	GRAY, SANDY LOAM	3"-12"	12"-18"	18"+	GOOD TO SOMEWHAT EXCESSIVE	"	RAPID	MOD. LOW	X			X	
Ee	EVERETT GRAVELLY SANDY LOAM 15-30%	FRIABLE GRAY, SANDY	VERY GRAY, SANDY LOAM	" " "	4"-8"	8"-30"	30"+	SOMEWHAT EXCESSIVE	SLOW	VERY RAPID	LOW	X			X	
Hc	HEISLER GRAVELLY LOAM 15-30% SLOPES	FRIABLE GRAY, LOAM	FRIABLE GRAY, LOAM OR CLAY LOAM	GLACIAL TILL OVER MICASCHIST	6"-10"	10"-30"	30"+	GOOD	MEDIUM	MEDIUM	MODERATE	X			X	
Fb	FIDALGO ROCKY LOAM 15-30% SLOPES	ROCKY LOAM	GRAVELLY LOAM	BEDROCK	3"-8"	8"-24"	24"+	GOOD OR MOD. GOOD	"	"	MOD. LOW	X			X	STEEL, STONY, HARDFAN 14"-60" BELOW SOIL, NEED FILL IN AREAS WHERE SOIL IS SHALLOW & NEED TO PROTECT WATER TABLE-Well FROM CONTAMINATION. STEEP, SOME SANDSTONE IN AREAS, GRAVEL & COBBLESTONE IN OTHER AREAS, NEED FILL IN SHALLOW AREAS & NEED TO PROTECT WATER TABLE-Well. HARDFAN 36"-60" BELOW SOIL, NEED FILL IN SHALLOW AREAS & PROTECT WATER TABLE-Well. BEDROCK, HILLY & INACCESSIBLE, MAY NEED FILL IN SHALLOW SOIL AREAS, NEED TO PROTECT WATER TABLE-Well FROM CONTAMINATION. BEDROCK, SHALLOW SOIL OVER BEDROCK, NEED FILL IN SHALLOW AREAS, NEED TO PROTECT WATER TABLE-Well FROM LATERAL MOVEMENT OF SEWAGE OVER BEDROCK, LOCATE WELL ON SLOPE & 50"-100" DISTANCE. STEEP, INACCESSIBLE, POROUS SOIL, RAPID DRAINAGE OF SEWAGE EFFLUENT, NEED TO PROTECT WATER TABLE-Well. SUITABILITY FOR HOMESITES & SEPTIC TANKS DEPENDS ON DISTANCE LOCATED FROM HIGH TIDE.
Kd	KLAUS GRAVELLY LOAM 15-30% SLOPES	GRAVELLY LOAM	" OR GRAY, SANDY	GRAY, SANDY GLACIAL DRIFT	1"-6"	6"-10"	10"-24"	SOMEWHAT EXCESSIVE	"	RAPID	"	X			X	
Mb	MARBLEMOUNT STONY LOAM 15-30% SLOPES	FRIABLE LOAM	STONY LOAM	STONY SANDY LOAM	6"-12"	12"-24"	24"+	GOOD	"	MEDIUM	MODERATE	X			X	
Tc	INDIANOLA LOAMY SAND 15-30% SLOPES	LOAMY SAND	LOOSE LOAMY SAND	LOOSE SAND	6"-10"	10"-24"	24"+	SOMEWHAT EXCESSIVE	VERY SLOW	RAPID	MOD. LOW	X			X	
Ar	ALDERWOOD GRAY, SANDY LOAM, SHALLOW, 15-30%	GRAVELLY SANDY LOAM	GRAVELLY SANDY LOAM	HARDFAN	6"-8"	8"-14"	14"-60"	GOOD	MEDIUM	MEDIUM TO HARDFAN THEN VERY SLOW	"	X			X	
Cr	CATHCART LOAM, 15-30% SLOPES	FRIABLE SANDY LOAM	GRAY, FINE SANDY LOAM	SOFT SANDSTONE & FINE SANDY LOAM	6"	6"-50"	50"+	"	"	MEDIUM	MODERATE	X			X	
Oc	OSO LOAM 15-30% SLOPES	FRIABLE LOAM	FRIABLE LOAM OR SILT	HARDFAN	6"	6"-36"	36"-60"	"	"	"	MOD. LOW	X			X	
Hd	HEISLER STONY LOAM 15-30% SLOPES	FRIABLE STONY LOAM	GRAY, OR CLAY LOAM	BEDROCK	6"-10"	10"-48"	48"+	"	"	"	MODERATE	X			X	
Fa	FIDALGO ROCKY LOAM 8-15% SLOPES	FRIABLE ROCKY LOAM	GRAY, SHALY OR SANDY LOAM	"	3"-8"	8"-24"	24"+	GOOD OR MOD. GOOD	SLOW TO MEDIUM	"	MOD. LOW	X			X	
Kh	KLAUS GRAY, SANDY LOAM 15-30%	GRAY, SANDY LOAM	GRAY, SANDY LOAM	GRAY, SANDY LOAM	1"-6"	6"-10"	10"-24"	SOMEWHAT EXCESSIVE	SLOW	VERY RAPID	LOW	X			X	OCCASIONALLY FLOODED IN LOWER AREAS ADJACENT TO STREAMS, NEED HOUSES ON FOUNDATIONS & LOTS ELEVATED & SLOPED TO DRAIN, SOIL VERY PERMEABLE, NEED TO PROTECT WATER TABLE-Well. OCCASIONALLY FLOODED, SOME CLAY IN SUBSTRATUM, NEED SAME PROTECTION AS Fk HARDFAN, NEED SAME PROTECTION AS Oc.
Cw	COASTAL BEACH 0-3% SLOPES	WAVE WASHED SAND, GRAVEL & STONE	WAVE WASHED SAND, GRAVEL AND STONE	WAVE WASHED SAND, GRAVEL & STONE	NO PROFILE DIFFERENTIATION			EXCESSIVE	VERY SLOW	"	MODERATE	X			X	
Fk	UYALUF FINE SANDY LOAM 0-3%	FINE SANDY LOAM	FINE SANDY LOAM	FINE & MED. SAND	6"-12"	12"-30"	30"+	GOOD	"	RAPID	"	X			X	
C16	COVELAND SILT LOAM, MOD. WELL DRAINED VARIANT, 0-3%	FRIABLE SILT LOAM	HEAVY SILT LOAM	VERY GRAY, SILT LOAM	6"-8"	8"-20"	20"+	MOD. GOOD	"	MEDIUM	"	X			X	
Na	NEPTUNE SANDY LOAM 0-3% SLOPES	FRIABLE SANDY LOAM	LOOSE LOAMY SAND	COARSE SAND, SHELLS, CLAY	6"	6"-24"	24"+	GOOD	"	RAPID	MOD. LOW	X			X	
Oa	OSO LOAM 3-8% SLOPES	FRIABLE LOAM	FRIABLE LOAM	HARDFAN	6"	6"-36"	36"-60"	"	SLOW	MEDIUM	MODERATE	X			X	
Ob	OSO LOAM 8-15% SLOPES	"	"	"	"	"	"	"	SLOW TO MEDIUM	RAPID	MOD. LOW	X			X	
Rh	ROUGH MOUNTAINOUS LAND, OSO SOIL MATERIAL	MISC. LAND TYPES	MISC. LAND TYPES	-	-	-	-	VARIABLE	RAPID	VARIABLE	VARIABLE	-	-	-	X	

SOIL SUITABILITY FOR SEPTIC TANK SEWAGE DISPOSAL POOR TO UNSUITED

TABLE 7

TABLE 7																							
SOIL TYPE		SOIL PROFILE			SOIL DEPTH			SOIL DRAINAGE CHARACTERISTICS				SLOPE OF SOIL		OCCURRENCE OF HIGH WATER TABLE			REMARKS, RECOMMENDATIONS						
SOIL SYMBOL	SOIL DESCRIPTION	SURFACE SOIL	SUBSOIL	SUBSTRATUM	DEPTH OF SURFACE SOIL	DEPTH OF SUBSOIL	DEPTH TO SUBSTRATUM	NATURAL DRAINAGE	SURFACE RUNOFF	INTERNAL PERMEABILITY	CAPACITY FOR HOLDING WATER	GOOD FOR RESIDENTIAL	VERY STEEP FOR RESIDENTIAL & ROADS	TOO STEEP FOR RESIDENTIAL & ROADS	NONE	CONTINUAL	IN FALL, WINTER AND SPRING	INTERMITTENT	IN WINTER	INTERMITTENT	IN WINTER		
Pm	PUYALLUP LOAM 0-3% SLOPES	FINE SANDY LOAM	FINE SAND	FINE SANDY LOAM	6"-12"	12"-30"	30"+	GOOD	VERY SLOW	MEDIUM	MODERATE	X								X		MOST OF THIS IS ON NATURAL LEVEES ALONG SKAGIT RIVER, SUITED ONLY TO LOW DENSITY RESIDENTIAL WITH HOUSES ON FOUNDATIONS & LOTS ELEVATED & SLOPED TO DRAIN, ARTIFICIAL DRAINAGE NEEDED AFTER HEAVY RAINS.	
Pa	PUYALLUP SILT LOAM 0-3% SLOPES	" " "	" " "	" " "	" " "	" " "	" " "	"	"	"	MOD. HIGH									X			
Ko	KLAUS SANDY LOAM 15-30% SLOPES	SANDY LOAM	SANDY LOAM	SANDY LOAM	1"-6"	6"-10"	10"-24"	SOMEWHAT EXCESSIVE	SLOW TO MEDIUM	RAPID	LOW		X		X							STEEP, DROUGHTY	
Sg	SAXON SILT LOAM 15-30% SLOPES	FRIABLE SILT LOAM	FRIABLE SILT LOAM	SILT & CLAY LOAM	6"	6"-14"	14"+	GOOD	MEDIUM	MEDIUM	MOD. HIGH		X		X								
Su	SKYKOMISH COBBLY SAND LOAM 15-30% SLOPES	VERY FRIABLE COBBLY SANDY LOAM	VERY FRIABLE COBBLY SANDY LOAM	GRAVEL AND SAND	4"-10"	10"-24"	24"+	SOMEWHAT EXCESSIVE	SLOW	VERY RAPID	LOW		X		X							STEEP, DROUGHTY	
Sx	SKYKOMISH GRAVELLY SAND LOAM 15-30%	FRIABLE GRAV. SANDY	FRIABLE GRAV. SANDY	GRAVELLY SANDY LOAM	" " "	" " "	" " "	"	"	"	"		X		X								
Th	THORNWOOD GRAVELLY LOAM 15-30%	FRIABLE GRAV. LOAM	GRAV. SANDY LOAM	LOOSE GRAVELLY SAND	8"-12"	12"-24"	24"+	"	MEDIUM	RAPID	MOD. LOW		X		X							" "	
To	THORNWOOD GRAVELLY SANDY LOAM 15-30%	FRIABLE GRAV. SANDY	" " "	" " "	" " "	" " "	" " "	"	SLOW	VERY RAPID	LOW		X		X							" "	

SOIL SUITABILITY FOR SEPTIC TANK SEWAGE DISPOSAL

POOR TO UNSUITED

Fc	PILCHUCK LOAMY SAND 0-3% SLOPES	LOOSE FINE SAND	MEDIUM FINE SAND	COARSE SAND	2"-8"	8"-48"	48"+	SOMEWHAT EXCESSIVE	VERY SLOW	VERY RAPID	LOW	X										FREQUENTLY FLOODED, VERY DROUGHTY.
Cf	CARBONDALE MUCK 0-1% SLOPES	FRIABLE MUCK	WOODY & FIBROUS	ORGANIC WOODY ACCUMULATIONS	6"-12"	12"-60"	60"+	VERY POOR	PONDED	VERY SLOW, MEDIUM IF DRAINED	HIGH	X			X							
Cg	CARBONDALE MUCK, SHALLOW, 0-1%	" " "	DECAYED MATTER	" " "	" " "	12"-24"	24"+	"	"	"	"	X			X							WOODY & FIBROUS DECAYED MATTER, PONDED-VERY POORLY DRAINED
Gp	GREENWOOD FEAT 0-1% SLOPES	MOSS PEAT	BROWN MOSS PEAT	BROWN MOSS PEAT	6"-12"	12"-36"	36"+	"	"	VERY SLOW TO NONE	"	X			X							
Mc	MUKILTEO FEAT 0-1% SLOPES	DECOMPOSED SEDGE PEAT	FIBROUS SEDGE PEAT	FIBROUS SEDGE PEAT	" " "	" " "	36"-72"	"	"	VERY SLOW, MEDIUM IF DRAINED	"	X			X							VERY POORLY DRAINED, UNLESS SOIL IS ARTIFICIALLY DRAINED WATER STANDS ON SURFACE MANY MONTHS OF THE YEAR
Md	MUKILTEO FEAT, SHALLOW 0-1%	" " "	" " "	" " "	" " "	12"-24"	24"+	"	"	"	"	X			X							
Ra	RIFLE FEAT 0-1% SLOPES	BLACK WOODY FEAT	DECOMPOSED WOODY	ORGANIC WOODY ACCUMULATIONS	4"-8"	8"-24"	24"+	"	"	"	"	X			X							"
Rb	RIFLE FEAT, SHALLOW 0-1% SLOPES	" " "	FEAT	" " "	" " "	" " "	" " "	"	"	"	"	X			X							
Sh	SEMIAMMO MUCK 0-1% SLOPES	BLACK SEDGE MUCK	SEDE FEAT	ORGANIC SEDGE ACCUMULATIONS	6"-12"	12"-30"	30"-6'	"	"	VERY SLOW	"	X			X							"
Sk	SEMIAMMO MUCK, SHALLOW 0-1%	" " "	" " "	" " "	" " "	" " "	" " "	"	"	"	"	X			X							
Ta	TANWAX FEAT, 0-1%	SEDIMENTARY FEAT	SEDIMENTARY FEAT	HARDFAN	6"-8"	8"-24"	24"+	"	"	"	"	X										HARDFAN AND CONTINUALLY HIGH WATER TABLE
Tb	TANWAX FEAT, SHALLOW 0-1%	" " "	" " "	" " "	" " "	" " "	" " "	"	"	"	"	X										
Fd	FILCHUCK SANDY LOAM 0-3%	LOOSE FINE SAND	MEDIUM FINE SAND	COARSE SAND	2"-8"	8"-48"	48"+	SOMEWHAT EXCESSIVE	VERY SLOW	RAPID	LOW	X					X					FREQUENTLY FLOODED, VERY DROUGHTY
Fa	FILCHUCK FINE SAND 0-3% SLOPES	" " "	" " "	" " "	" " "	" " "	" " "	"	"	VERY RAPID	"	X					X					
Fb	FILCHUCK GRAVELLY SAND 0-3% SLOPES	" " "	" " "	" " "	" " "	" " "	" " "	"	"	"	"	X					X					CLAY SUBSTRATUM, POORLY DRAINED
Bc	BELL INGHAM CLAY LOAM, LIGHT VARIANT, 0-3%	HEAVY SILTY CLAY	DENSE PLASTIC CLAY	DENSE PLASTIC CLAY	4"-8"	8"-10"	10"+	POOR	VERY SLOW	VERY SLOW	HIGH	X					FALL & WINTER					
Bd	BELL INGHAM SILT LOAM 0-2% SLOPES	SILT LOAM	SANDY CLAY LOAM	DENSE CLAY	6"-10"	10"-18"	18"+	"	"	"	"	X										VERY POORLY DRAINED, OFTEN FLOODED, MANY SITES IN THIS GROUP CONTAIN CLAY IN SUBSTRATUM
Cx	COKE DALE LOAM 0-3% SLOPES	FRIABLE SILT LOAM	COARSE TEXTURED	FINE SAND	18"-24"	24"-36"	36"+	IMPERFECT	"	MEDIUM	HIGH	X					X					
Cy	COKE DALE SANDY LOAM 0-3% SLOPES	" " "	MATERIALS	" " "	" " "	" " "	" " "	MOD. GOOD	"	RAPID WHEN WATER TABLE IS LOW	MOD. HIGH	X										"
Cz	COKE DALE SILT LOAM 0-3% SLOPES	" " "	" " "	" " "	" " "	" " "	" " "	IMPERFECT	"	MEDIUM	HIGH	X					X					
C2	COKE DALE SILT LOAM OVER PUYALLUP SOIL MATERIAL 0-3% SLOPES	GRAY SILT LOAM	FINE SILT LOAM	FINE SILT LOAM	8"-24"	24"+	24"+	"	"	"	"	X					X					"
C3	COKE DALE SILTY CLAY LOAM 0-3%	SILTY CLAY LOAM	SILTY CLAY LOAM	" " "	6"-10"	10"+	10"+	"	"	"	"	X					X					
C4	COKE DALE SILTY CLAY LOAM OVER PUYALLUP SOIL MATERIAL 0-3%	" " "	" " "	" " "	" " "	" " "	" " "	"	"	RAPID	"	X					X					"
Hf	HOLVOE LOAMY SAND 0-1% SLOPES	LOOSE LOAMY SAND	LOOSE LOAMY SAND	COARSE SAND	0"-6"	6"-12"	12"+	POOR	VERY SLOW TO PONDED	SLOW	"	X					X					
La	LUMMI SILT LOAM 0-1% SLOPES	SILT LOAM	SILTY CLAY LOAM	CLAY & SAND	4"-8"	8"-48"	48"+	SOMEWHAT EXCESSIVE	VERY SLOW	RAPID	LOW	X			X							"
Lb	LUMMI SILTY CLAY LOAM 0-1%	" " "	" " "	" " "	" " "	" " "	" " "	"	"	VERY RAPID	"	X			X							
Nb	NOOKACHAM'S SILT LOAM 0-2% SLOPES	FRIABLE SILT LOAM	SILTY CLAY LOAM	" " "	4"-24"	24"-48"	48"+	POOR	"	VERY SLOW	HIGH	X					X					"
Nc	NOOKACHAM'S SILTY CLAY LOAM 0-2%	SILTY CLAY LOAM	PLASTIC CLAY	PLASTIC CLAY	6"-18"	18"-24"	24"-48"	"	"	"	"	X					X					
Pf	FUGET LOAM 0-1% SLOPES	FRIABLE SILT LOAM	CLAY LOAM	PLASTIC MATERIALS	6"-18"	18"-48"	48"+	"	"	"	"	X					X					"
Fg	FUGET SILT LOAM 0-1% SLOPES	FRIABLE SILT LOAM	CLAY LOAM	" " "	" " "	" " "	" " "	"	"	"	"	X					X					
Fh	FUGET SILTY CLAY LOAM 0-1% SLOPES	SILTY CLAY LOAM	SILTY CLAY LOAM	VERY PLASTIC SILTY CLAY	" " "	" " "	" " "	"	"	"	"	X					X					"
Sa	SAMISH SILT LOAM 0-1% SLOPES	" " "	CLAY LOAM	" " "	6"-24"	24"-36"	36"+	"	"	SLOW	"	X					X					
Sb	SAMISH SILTY CLAY LOAM 0-1%	" " "	" " "	" " "	" " "	" " "	" " "	"	"	VERY SLOW	"	X					X					"
Sy	SHOHOMISH SILT LOAM 0-1% SLOPES	FRIABLE SILT LOAM	SILTY CLAY LOAM	FEATY MATERIALS	6"-18"	18"-24"	24"+	"	"	VERY SLOW	"	X					X					
Sz	SHOHOMISH SILTY CLAY LOAM 0-1%	" " "	" " "	" " "	" " "	" " "	" " "	"	"	"	"	X					X					"
S13	SUMAS SILT LOAM 0-1% SLOPES	" " "	" " "	LOOSE SAND	6"-30"	30"-36"	36"+	"	"	VERY SLOW	"	X					X					
S14	SUMAS SILT LOAM, DEEP, 0-1% SLOPES	" " "	" " "	" " "	" " "	" " "	" " "	"	"	"	"	X					X					"
S15	SUMAS SILT LOAM, SHALLOW, 0-1%	" " "	" " "	" " "	" " "	" " "	" " "	"	"	"	"	X					X					
S16	SUMAS SILTY CLAY LOAM 0-1%	SILTY CLAY LOAM	" " "	VERY PLASTIC CLAY LOAM	" " "	" " "	" " "	"	"	"	"	X					X					"

SOIL SUITABILITY FOR SEPTIC TANK SEWAGE DISPOSAL

UNSUITED

TABLE 8																				
SOIL TYPE		SOIL PROFILE			SOIL DEPTH			SOIL DRAINAGE CHARACTERISTICS				SLOPE OF SOIL		OCCURRENCE OF HIGH WATER TABLE			REMARKS, RECOMMENDATIONS			
SOIL SYMBOL	SOIL DESCRIPTION	SURFACE SOIL	SUBSOIL	SUBSTRATUM	DEPTH OF SURFACE SOIL	DEPTH OF SUBSOIL	DEPTH TO SUBSTRATUM	NATURAL DRAINAGE	SURFACE RUNOFF	INTERNAL PERMEABILITY	CAPACITY FOR HOLDING WATER	GOOD FOR RESIDENTIAL 0-15%	VERY STEEP FOR RESIDENTIAL & ROADS 15-30%	TOO STEEP FOR RESIDENTIAL & ROADS 30% & OVER	NONE CONTINUAL	IN FALL, WINTER AND SPRING	INTERMITTENT IN WINTER	IN WINTER	INTERMITTENT IN WINTER	
Tc	THORNTON CLAY 0-2% SLOPES	CLAY	FIRM CLAY	ALLUVIAL MICASCHIST & TALC	8"-24"	24"+	24"+	"	"	"	"	X						X		"
Td	THORNTON SILTY CLAY LOAM 0-2%	SILTY CLAY LOAM	" " "	OVER SHALY COARSE TEXTURED MATERIALS	"	"	"	"	"	"	"	X						X		"
We	WOODINVILLE SILT LOAM 0-1% SLOPES	FRIABLE SILT LOAM	PLASTIC CLAY	PLASTIC CLAY	6"-10"	10"-24"	24"+	"	"	"	"	X						X		"
Bk	BOY GRAVELLY LOAM 0-3% SLOPES	FRIABLE GRAV. SILT LOAM	SANDY CLAY LOAM	VERY PLASTIC CLAY	"	10"-14"	14"+	IMPERFECT	"	SLOW	MOD. HIGH	X						X		DENSE PLASTIC CLAY SUBSTRATUM, IMPERMEABLE TO SEPTIC TANKS EFFLUENT, WATER STANDS ON SURFACE MANY MONTHS OF THE YEAR BECAUSE OF CLAY.
Bm	BOY GRAVELLY LOAM 3-8% SLOPES	" " "	" " "	" " "	"	"	"	"	SLOW	"	"	X						X		"
Bn	BOY GRAVELLY LOAM 8-15% SLOPES	" " "	" " "	" " "	"	"	"	"	SLOW TO MEDIUM	"	"	X						X		"
Br	BOY LOAM 0-3% SLOPES	FRIABLE LOAM	" " "	" " "	"	"	"	"	VERY SLOW	"	"	X						X		"
Bs	BOY LOAM 3-8% SLOPES	" " "	" " "	" " "	"	"	"	"	SLOW	"	"	X						X		"
Bu	BOY LOAM, SHALLOW, 0-3% SLOPES	" " "	" " "	" " "	VARIABLE	10"-18"	"	"	VERY SLOW	"	"	X						X		"
Bv	BOY SILT LOAM 0-3% SLOPES	SILT LOAM	SILT LOAM TO SANDY	" " "	"	"	"	"	"	"	"	X						X		"
Bw	BOY SILT LOAM 3-8% SLOPES	" " "	CLAY LOAM	" " "	"	"	"	"	SLOW	"	"	X						X		"
Bx	BOY SILT LOAM 8-15% SLOPES	" " "	" " "	" " "	"	"	"	"	MEDIUM	"	"	X						X		"
B2	BOY SILT LOAM, SHALLOW, 0-3%	" " "	" " "	" " "	4"-10"	10"-14"	14"-18"	POOR	VERY SLOW	"	"	X						X		"
B3	BOY SILT LOAM, SHALLOW, 3-8%	" " "	" " "	" " "	"	"	"	"	SLOW	"	"	X						X		"
C12	COVELAND GRAVELLY LOAM 0-3%	GRAVELLY LOAM	GRAVELLY SANDY LOAM	PLASTIC CLAY	6"-14"	14"-18"	18"+	IMPERFECT	"	"	"	X						X		"
C13	COVELAND GRAVELLY LOAM 3-8%	" " "	" " "	" " "	"	"	"	"	"	"	"	X						X		"
C14	COVELAND GRAVELLY SILT LOAM 3-8%	" " "	" " "	" " "	"	"	"	POOR	VERY SLOW	"	"	X						X		"
C15	COVELAND SILT LOAM 0-3%	SILT LOAM	SANDY LOAM	" " "	"	"	"	IMPERFECT	"	"	"	X						X		"
Bb	BELLINGHAM CLAY 0-2% SLOPES	HEAVY SILTY CLAY	DENSE PLASTIC CLAY	DENSE PLASTIC CLAY	4"-8"	8"-10"	10"+	VERY POOR	VERY SLOW	VERY SLOW	HIGH	X					FALL & WINTER			DENSE PLASTIC CLAY SUBSTRATUM, IMPERMEABLE TO SEPTIC TANKS EFFLUENT, WATER STANDS ON SURFACE MANY MONTHS OF THE YEAR BECAUSE OF CLAY.
Bc	BELLINGHAM CLAY LOAM, LIGHT VARIANT, 0-3%	" " "	" " "	" " "	"	"	"	POOR	"	"	"	X								"
Bd	BELLINGHAM SILT LOAM 0-2% SLOPES	SILT LOAM	SANDY CLAY LOAM	DENSE CLAY	6"-10"	10"-18"	18"+	"	"	"	"	X								"
Be	BELLINGHAM SILT LOAM 2-5% SLOPES	" " "	" " "	" " "	"	"	"	"	SLOW	"	"	X								"
Bf	BELLINGHAM SILT LOAM, LIGHT VARIANT, 0-3%	" " "	" " "	" " "	"	"	"	"	VERY SLOW	"	"	X								"
Bg	BELLINGHAM SILTY CLAY LOAM 0-2%	SILTY CLAY LOAM	" " "	" " "	"	"	"	POOR TO VERY POOR	"	"	"	X								"
Bh	BELLINGHAM SILTY CLAY LOAM 2-5%	" " "	" " "	" " "	"	"	"	POOR	SLOW	"	"	X								"
Nd	NORMA LOAM 0-2% SLOPES	SILT LOAM	SANDY LOAM	HARDPAN	6"-36"	36"-48"	48"-60"	"	VERY SLOW	"	"	X				X				HARDPAN, VERY POORLY DRAINED, NEED ARTIFICIAL DRAINAGE & FILL OVER SHALLOW SOIL AREAS
Ne	NORMA SILT LOAM 0-2% SLOPES	" " "	" " "	"	"	"	"	"	"	"	"	X				X				"
Nf	NORMA SILT LOAM 2-5% SLOPES	" " "	" " "	"	"	"	"	"	SLOW	SLOW	"	X					X			"
Ng	NORMA SILTY CLAY LOAM 0-2% SLOPES	SILTY CLAY LOAM	SILTY CLAY LOAM	"	"	"	"	"	VERY SLOW	VERY SLOW	"	X				X				"
Ts	TISCH SILTY CLAY LOAM 0-1% SLOPES	" " "	WHITE, FIRM, SILTY DIATOMACEOUS EARTH	DIATOMACEOUS EARTH OVER GLACIAL MATERIALS	4"-10"	10"-60"	60"+	"	VERY SLOW TO FONDLED	"	"	X					X			SILTY CLAY PROFILE, FONDLED MANY MONTHS OF THE YEAR
An	ALDERWOOD GRAVELLY SANDY LOAM, SHALLOW, 0-3%	GRAVELLY SANDY LOAM	GRAVELLY SANDY LOAM	HARDPAN	6"-8"	8"-14"	14"+	MOD. GOOD	VERY SLOW	MEDIUM TO HARDPAN THEN VERY SLOW	MOD. LOW	X						X		HARDPAN, SHALLOW SOIL OVER HARDPAN, NEED FILL & PREVENTION OF WATER TABLE WELL POLLUTION BY LATERAL MOVEMENT OF SEWAGE OVER HARDPAN.
Ao	ALDERWOOD GRAVELLY SANDY LOAM, SHALLOW, 3-8%	" " "	LOAM	"	"	"	"	"	SLOW	"	"	X						X		"
Ap	ALDERWOOD GRAV. SANDY LOAM, SHALLOW, 8-15%	" " "	" " "	"	"	"	"	GOOD	SLOW TO MEDIUM	"	"	X						X		"
Bo	BOY GRAVELLY LOAM 15-30% SLOPES	GRAVELLY LOAM	SANDY CLAY LOAM	PLASTIC CLAY	6"-10"	10"-14"	14"+	IMPERFECT	"	SLOW	MOD. HIGH		X					X		PLASTIC CLAY IN SUBSTRATUM, STEEP
Bp	BOY GRAVELLY LOAM 30-45% SLOPES	" " "	" " "	" " "	"	"	"	"	VERY SLOW	"	"			X				X		"
Bt	BOY LOAM 15-30% SLOPES	FRIABLE LOAM	" " "	" " "	"	"	"	"	MEDIUM	"	"			X				X		"
By	BOY SILT LOAM 15-30% SLOPES	FRIABLE SILT LOAM	" " "	" " "	"	"	"	"	RAPID	"	"			X				X		"
Bz	BOY SILT LOAM 30-45% SLOPES	" " "	" " "	" " "	"	"	"	"	VERY RAPID	"	MOD. LOW				X					"
Cs	CATHCART LOAM 30-60% SLOPES	FINE SANDY LOAM	FINE SANDY LOAM	FINE SANDY LOAM & SANDSTONE	6"-10"	10"-30"	30"-50"	GOOD	RAPID	MEDIUM	MODERATE			X	X					VERY STEEP, SOME SANDSTONE IN SUBSTRATUM
Cu	CATHCART STONY LOAM 15-30% SLOPES	STONY LOAM	" " "	" " "	"	"	"	"	MEDIUM	"	"			X	X					"
Cv	CATHCART STONY LOAM 30-60% SLOPES	" " "	" " "	" " "	"	"	"	"	RAPID	"	"				X	X				"
C9	CORKINDALE LOAM 30-45% SLOPES	YELLOW-RED LOAM	FRIABLE GRAV. LOAM	SANDY GRAVEL	0"-3"	3"-12"	12"-36"	SOMEWHAT EXCESSIVE	MEDIUM	RAPID	LOW			X	X					THIS GROUP CONTAINS SOILS WITH ONE OR MORE OF THE FOLLOWING ADVERSE FACTORS -- VERY STEEP, HILLY, STONY, ROUGH, MOUNTAINOUS, DIFFICULT ACCESS, ETC.
Ef	EVERETT GRAV. SANDY LOAM 30-45%	GRAV. SANDY LOAM	GRAV. SANDY LOAM	GRAVELLY SANDY LOAM	4"-8"	8"-30"	30"+	"	"	VERY RAPID	"			X				X		"
Fc	FIDALGO ROCKY LOAM 30-45%	ROCKY LOAM	GRAVELLY LOAM	ROCKY SANDY LOAM	3"-8"	8"-24"	24"+	GOOD OR MOD. GOOD	RAPID	"	MOD. LOW			X	X					"
He	HEISLER STONY LOAM 30-45% SLOPES	FRIABLE STONY LOAM	GRAV. OR CLAY LOAM	BEDROCK	6"-10"	10"-30"	30"-48"	GOOD	"	"	MODERATE			X	X					BEDROCK,
Id	INDIANULA LOAMY SAND 30-45% SLOPES	FRIABLE LOAMY SAND	LOOSE LOAMY SAND	LOOSE SAND	6"-10"	10"-24"	24"+	SOMEWHAT EXCESSIVE	MEDIUM	VERY RAPID	LOW			X	X					"
Od	OSO LOAM 30-60% SLOPES	FRIABLE LOAM	FRIABLE LOAM	HARDPAN	6"	6"-36"	36"-60"	GOOD	RAPID	MEDIUM	MOD. LOW			X	X					"
Rd	ROUGH BROKEN LAND	MISCELLANEOUS LAND TYPES			"	"	"	EXCESSIVE	"	VARIABLE	HIGH						X			"
Re	ROUGH MOUNTAINOUS LAND, CATHCART SOIL MATERIAL	"	"	ARKOSE SANDSTONE	"	"	"	VARIABLE	"	"	VARIABLE				X					"
Rf	ROUGH MOUNTAINOUS LAND, HEISLER SOIL MATERIAL	"	"	"	"	"	"	"	"	"	"				X					"
Rg	ROUGH MOUNTAINOUS LAND, MARBLEMOUNT SOIL MATERIAL	"	"	"	"	"	"	"	"	"	"				X					"
Rk	ROUGH ROCKY LAND	"	"	"	"	"	"	"	"	"	"				X					"

SOIL SUITABILITY FOR SEPTIC TANK SEWAGE DISPOSAL

UNSUITED

TABLE 9

SOIL TYPE		SOIL PROFILE			SOIL DEPTH			SOIL DRAINAGE CHARACTERISTICS				SLOPE OF SOIL			OCCURRENCE OF HIGH WATER TABLE					REMARKS, RECOMMENDATIONS		
SOIL SYMBOL	SOIL DESCRIPTION	SURFACE SOIL	SUBSOIL	SUBSTRATUM	DEPTH OF SURFACE SOIL	DEPTH OF SUBSOIL	DEPTH TO SUBSTRATUM	NATURAL DRAINAGE	SURFACE RUNOFF	INTERNAL PERMEABILITY	CAPACITY FOR HOLDING WATER	GOOD FOR RESIDENTIAL 0-15%	VERY STEEP FOR RESIDENTIAL & ROADS 15-30%	TOO STEEP FOR RESIDENTIAL & ROADS 30% & OVER	NONE	CONTINUAL	IN FALL, WINTER AND SPRING	INTERMITTENT	IN WINTER	INTERMITTENT IN WINTER		
So	SKIYDU GRAVELLY LOAM 15-30%	FRIABLE GRAV. LOAM	GRAV. SANDY LOAM	HARDPAN	6"-10"	10"-30"	30"+	GOOD	MEDIUM	MEDIUM TO HARDPAN	MOD. LOW	X			X						HARDPAN,	"
Sp	SKIYDU GRAVELLY LOAM 30-45%	"	"	"	"	"	"	"	RAPID	THEN VERY SLOW	"			X	X						"	"
S5	SQUALICUM GRAVELLY SILT LOAM 15-30%	GRAVELLY SILT LOAM	GRAVELLY SILT LOAM	"	8"-12"	12"-30"	30"+	"	MEDIUM	"	"		X		X						"	"
S6	SQUALICUM GRAVELLY SILT LOAM 30-45%	"	"	"	"	"	"	"	MEDIUM	"	"				X						"	"
Tp	THORNWOOD GRAVELLY SANDY LOAM 30-45%	FRIABLE GRAV. SANDY LOAM	GRAVELLY SANDY LOAM	LOOSE GRAVELLY SAND	"	12"-24"	24"+	SOMEWHAT EXCESSIVE	RAPID	"	"			X	X						"	"
Rc	RIVERWASH 0-3% SLOPES	MISC. GRAVEL, BOULDERS & REWORKED SAND			-	-	-	EXCESSIVE	VERY SLOW	VERY RAPID	LOW				X						"	"
Tr	TIDAL MARSH 0-1% SLOPES	MISC. LAND, BORDERS, SALTY OR BRACKISH WATER			-	-	-	VERY POOR	PONDED	"	HIGH							X			"	"
Ae	ALDERWOOD GRAVELLY LOAM 30-45%	GRAVELLY SANDY LOAM	GRAVELLY SANDY LOAM	HARDPAN	6"-8"	8"-14"	14"-60"	GOOD	RAPID	VERY SLOW TO NONE	"	X				X					"	"
Am	ALDERWOOD GRAVELLY SANDY LOAM 30-45% SLOPES	"	"	"	"	"	"	SOMEWHAT EXCESSIVE	"	MEDIUM TO HARDPAN THEN VERY SLOW BELOW HARDPAN	MOD. HIGH MOD. LOW			X	X						VERY STEEP, HARDPAN	"

SOIL SUITABILITY FOR SEPTIC TANK SEWAGE DISPOSAL UNSUITED

FLOOD PROTECTION

"---Rivers were here long before man, and for untold ages, every stream has periodically exercised its right to expand when carrying more than normal flow. Man's error has not been the neglect of flood control measures but his refusal to recognize the right of the rivers to their floodway---."



Skagit River Valley - Flood Basin

The flood plain includes the entire floor of the Skagit River Valley, the deltas of the Samish and Skagit Rivers, and reclaimed tidelands adjoining the Skagit, Samish and Stillaguamish basins. The flood plain comprises 90,000 acres, including 68,000 acres of fertile farm land downstream, and west of Sedro-Woolley. A large portion of the farmland west of Sedro-Woolley is protected from small floods by levees, but would be flooded by large floods that overtop or breach the levees.

Cities and communities in the Skagit River Basin include Mount Vernon, Sedro-Woolley, Burlington, Concrete, La Conner, Clear Lake, Lyman, Marblemount, Hamilton, Rockport, Conway and Van Horn.

The central business district of the City of Mount Vernon is within the flood plain, but is protected by levees from all but major floods. The City of Sedro-Woolley is situated on a terrain which slopes upward from the river, and only minor flooding has occurred within the city limits in recent times. The City of Burlington has been inundated by major floods, but high levees west and south of the city have restrained the relatively mild floods of recent years. The communities of

Concrete, Marblemount, Rockport, Lyman and Van Horn are on high ground and are therefore not subject to flooding. LaConner has not been flooded in recent years because of protection afforded by levees north of the city and along the Skagit River. Many of the smaller communities on the flood plain are subject to flooding. Allen, Bow, Blanchard and Edison in the Samish River Basin are also subject to flooding, should the Skagit River floods overflow the low divide between the two basins in the vicinity of Sedro-Woolley.

Our Tendency to Forget

As the Skagit Valley has experienced only very minor flooding since 1959, there is a tendency among some valley residents to disregard the flood problem. The much larger flood of 1951 is even less well remembered. The flood of 1921, which had more than twice the peak discharge of 1959, is practically forgotten. However, recent disastrous floods in other parts of the nation clearly illustrate that a long flood-free period is no assurance of future immunity to flooding. In view of the lack of recent flood experience, there has been an increase in occupancy of the flood plain.

The Flooding Process

Skagit River floods result from storms which, moving in from the Pacific Ocean, have their rainfall intensified as the air currents are forced upward over the Cascade Mountains. Temperatures accompanying the storms are often high enough to melt part of the snowpack. If, in addition, the ground is saturated from previous rains, rapid runoff takes place. Swollen creeks and streams quickly fill the main river channel to capacity. As the increasing flow proceeds downstream, the flatter grades cause a reduction in velocity and the river spreads out onto the flood plain.

When the river overflows its banks, a sheet of water quickly spreads across the flood plain. The water is generally shallow at the beginning and some inundated roads remain passable. However, water may stand several feet deep in old river channels and other depressions. As the flow increases toward the peak of the flood, water extends to the outer limits of the flood plain and rises to greater elevations. The normal river banks may disappear from sight, submerged beneath a mile-wide expanse of water. Vehicles being driven along drowned roads are endangered as the force of flowing water may be enough to carry cars and trucks off the pavement into ditches and

fields. Homes in the flood plain may be inundated, furniture water-logged, basements filled with silt and debris. With greater depth and the force of flowing water, buildings may be moved off their foundations or undermined. As the water moves toward Skagit, Padilla and Samish Bays, it may be blocked by a road fill with inadequate culvert openings. When this happens, the water rises until it spills over the roadway, creating a falls on the downstream side which may completely wash out the road. Where bridges have inadequate clearances above high water, debris such as logs, brush, and small structures may be trapped at piers or on girders and accumulate until the bridge opening is virtually blocked. This causes an additional rise in the water surface and may result in collapse of the bridge.

History of Flooding 1896 - 1967

The two most recent floods of the Skagit River occurred on 30 April and 24 November 1959 and were a little over 90,000 cubic feet per second at Sedro-Woolley. This is less than half the magnitude of several floods which have occurred in the last hundred years.

Flood Dates	Discharge near Concrete <u>1/</u> (cubic feet per second)	Discharge near Sedro-Woolley <u>1/</u> (cubic feet per second)	Estimated Damages in flood plain west of Sedro- Woolley <u>2/</u>
16 Nov 1896	-	185,000	\$11,900,000
19 Nov 1897	-	190,000	11,980,000
16 Nov 1906	-	180,000	11,810,000
30 Nov 1909	-	220,000	14,060,000
30 Dec 1917	-	195,000	12,067,000
12-13 Dec 1921	-	210,000	13,273,000
27 Feb 1932	147,000	-	10,609,000
13 Nov 1932	116,000	-	6,600,000
22 Dec 1933	101,000	-	2,350,000
25 Jan 1935	131,000	-	9,050,000
27 Nov 1949	-	140,000	6,870,000
10 Feb 1951	-	150,000	11,360,000
30 Apr 1959	90,700	92,000	500,000
24 Nov 1959	89,300	91,000	390,000

1/ These are actual discharges. Ross Dam storage was partially effective in 1949 and 1951 and fully effective after 1953.

2/ Damages are at 1963 prices and development, and based on full use of Ross Dam flood control storage for all flows.

The 1909 flood was the largest since reliable records were started in 1896. Greater floods can, and probably will, occur at rare intervals. If all of the flood-producing conditions should take place at the same time, the unlikely would become the possible. For example, if the river should be running high, with the soil saturated and a deep, wet snowpack over the basin, and if a series of storms should follow each other

in from the Pacific Ocean, precipitation and snowmelt could cause a flood much larger than the 1909 highwater.

Flood Control Projects - Man's Effort to Keep the Water Away From the People

An examination of existing levees indicates that all areas behind the levees do not have the same degree of flood protection. With sand bagging of low areas and minor flood fighting, some areas may be flooded when Skagit River flows reach 90,000 cubic feet per second, while others would be safe until a flow of about 140,000 cubic feet per second is reached. Floods of these magnitudes are expected to recur at frequencies of 3 and 14 years, respectively. The capacity is based on the assumption of failure when the flood level is one foot below the average of low elevation in the levee system. Average annual flood damages in the flood plain are estimated to exceed \$2,216,000 a year at 1963 prices. Damage to farmland and crops, farm buildings and equipment, commercial buildings, roads and railroads, dikes, and transmission lines are included in the estimate.

The dams in Skagit County are primarily "power dams" - not flood control dams - and consequently the dams offer only a relatively small degree of protection.

The only dependable flood storage in the basin effective in reducing flood flows is at Ross Dam in the Upper Skagit River. Since 1953, the flood storage in Ross Dam has been used effectively to reduce all flood flows in the lower basin. For example, a recurrence of the 1909 flood that was equal to 220,000 cubic feet per second at Sedro-Woolley would be reduced to approximately 200,000 cubic feet per second by this storage. In other words, Ross Dam would affect less than 10 percent of the river flow at Sedro-Woolley.

Unwise Encroachment on River's Expansion Area

In recent years there has been a trend toward unwise urban expansion and industrial development into the flood plain agricultural areas. As this trend toward higher land use continues, the flood damage potential will be greatly increased. We must recognize that flood plains are among the most attractive sites for human occupancy and activity. Throughout all human history, civilizations have risen and flourished in river valleys. Almost all major American cities are situated on riverbanks, and much of our best farmland lies on the floors of alluvial valleys. People desire access to riverbank areas for the enjoyment of out-

door recreational activities. Industries need access for transportation and water supply.

Any development of the flood plain should be tempered by the fact that the flood plain can only be borrowed. Basically, the unprotected flood plain belongs to the river, which, in accordance with physical law, may demand its return at any time. The flood plain may be thought of as a gigantic drain which may carry enormous quantities of water from the hills and mountains to the sea. Between storms, when the river is fed by underground seepage and streamflow is confined to a low-water channel, the flood plain is temporarily available for the uses of man. During periods of heavy, continuous rainfall, the capacity of the low-water channel is exceeded and the river calls upon its flood plain to carry the load. This is just as normal during the rainy season as low flow is during dry weather.

Under these conditions, what can be done to obtain the most beneficial use of the present day flood plain with the least damage? The first consideration is to give the river working room. Nothing should be done to obstruct the low-water channel, as this will cause the river to overflow its banks unnecessarily. Everything

possible should be done to permit water which has overflowed onto the flood plain to run off as quickly as possible. For example, highway fills across the flood plain should have sufficient culvert openings to pass flood flows without causing the water to back up excessively.

Working Room for the River

Lack of working room for a river often is found where levees have been built by piecemeal, haphazard, "do-it-yourself" methods. Levees built on the edges of river banks to conserve land, confine the river to a narrow channel and the flow can no longer spread out across the flood plain. Such confinement results in higher water surface elevations and increased flow velocities which cause erosion. When levees are needed, a uniform, overall system should be planned, including a flow study to establish the distance required between levees on each side of the river to contain high flows. Similarly, highway and railroad bridges should be high enough to pass both flood waters and floating debris.

Elevating of Structures - Floodproofing

Another consideration for living successfully with a river is to carry out floodproofing measures, that is, adapting buildings to

withstand several feet of water with a minimum of damage. One simple but effective method is to build or raise structures several feet above the ground. This would require a few extra steps, but the ground floor could be used for parking or for certain kinds of storage. Other waterproofing measures include closing basement windows permanently - for example, with glass brick; using treated timbers in the lower portions of structures; applying waterproof cement on floor coverings; avoiding the use of carpeting, upholstery and veneer as much as possible.

Emergency measures such as moving furnishings above floor level when flooding is imminent also reduce flood damage. Such measures, however, are contingent upon the receipt of a warning or forecast in time to take the necessary action. In the past, responsibility for this service has not been clearly defined, but Civil Defense centers now coordinate information supplied by the U. S. Weather Bureau, river gages, law enforcement and county engineering units, and arrange for broadcasting flood and evacuation warnings by commercial radio and television stations.

National Trend - Zoning, Man's Effort to Keep the People Away From the Water.

In the absence of adequate and effective flood control, the most effective means of preventing flood damage is zoning. The zoning of cities and counties to separate residential, commercial, and industrial areas is commonplace. The zoning of floodplains, including regulations restricting flood plain usage, is increasingly becoming common practice and is just as desirable and as legally sound. The objective of such zoning is to reserve the flood plain for those uses which are best suited to it and the least subject to damage from highwater. The part of the flood plain subject to inundation every few years could be zoned for agriculture, including buildings necessary for farm operation. Public and commercial activities which can recover quickly from inundation could be allowed in some areas provided protection is provided. Other desirable uses include parks, playfields, parking lots, and drive-in theaters. A useful method for determining the limits of this zone would be to use the highwater mark on one of the larger recorded floods.

At this point, attention should be called to the fact that the zoning of private and other non-federal lands in the flood plain is the responsibility of counties and cities under the authority granted by State law. Land use planning was authorized by the Washington State Legislature in a 1959 Act.

Other Tools of Government to Supplement Zoning

To supplement zoning laws, other means are available to provide some control over use of the flood plain. Subdivision ordinances determine the conditions under which tracts may be divided into lots for sale or building developments. Such ordinances should incorporate flood maps and water surface profiles, and require that floor elevations be above a selected flood height and that buildings and land fills be constructed so as to insure that no restriction will be made in the floodway capacity.

Federal and State Influence - in lieu of local acceptance of responsibility

Federal loan agencies, such as the Federal Housing Agency, Veterans Administration, Farmers Home Loan Administration, Urban Renewal Administration, the Economic Development Administration, and others exert an influence on development of the flood plain by withholding approval of loans for improvements in locations known to be subject to flooding. This information should be of value to agency appraisers by identifying the extent of known and probable flooding.

Other federal and state agencies such as the U. S. Army Corps of Engineers and the State Department of Water Resources (state-wide jurisdiction over flood control) provide valuable services and technical aid to local areas and exert a great deal of

influence on developments of the flood plain through the provision of their various technical services and through the enforcement of the various flood control regulations, permits, etc.

These agencies also exert influence indirectly such as through state and federal recommendations to funding institutions regarding proposed projects on the flood plain (commercial, industrial, residential, etc.) and the withholding of funds from local jurisdictions which fail to recognize local flood problems and develop flood plain regulations. The increasing federal and state concern, over actual and potential flood damages and losses, which are continuing to rise despite greatly increased expenditures for flood control improvements, has accelerated the national trend toward flood plain zoning by local jurisdictions.

Experience has shown that there is no substitute for a comprehensive zoning ordinance to prevent the disastrous mistakes which occur when the inexperienced or uninformed seek to develop the flood plain. The present high rate of population growth and the resulting increase in building and subdividing can affect all areas suitable for residential construction purposes. This is particularly true on the edges of the larger metropolitan communities, and, with improved transportation, soon will apply to the more remote localities. Early settlers in

western Washington valleys knew that they and their families would be living there for years to come and had the good judgment to build their homes on the highest available part of their holdings. As a result, flood damage along many streams has been confined primarily to crops.

The danger is that promoters of new housing sites, shopping centers, and motels may lack a long-range viewpoint and unintentionally saddle future owners with flood susceptible, depreciated and hazardous property.

Local Responsibility

The responsibility for flood plain zoning lies with county or municipal planning commissions. The task of mapping the county, determining its present uses, and arriving at a fair and reasonable recommendation for the best future use of all areas, is a difficult one and should be undertaken by only these agencies or groups which are well qualified to perform the work.

Those interested in doing additional reading on the subject of flood plain zoning may wish to examine a list of books and other publications available upon request from the County Planning Department.

Source: Excerpts from "Flood Plain Information - Study Skagit River Basin Summary Report", prepared at the request of the State Department of Water Resources by the U. S. Army Engineer District, Seattle, Washington April 1967.

CHAPTER VI

ECONOMIC BASE

Existing

The existing economic base of Skagit County has been analyzed in the report "Skagit County Economic Base", which is an integral part of this Comprehensive Plan. Copies are available in the County Planning Department.

Natural Resources

The major problems in regard to natural resources are:

Forests The processing of Skagit County logs in mills outside of Skagit County.

Minerals Inaccessibility of ore deposits and lack of markets for easily accessible ores.

Soils Loss of prime agricultural soil to residential and industrial land uses.

Fishing Processing of fish in areas outside of this County.

Human Resources

Basic problems in regard to human resources are:

Population Not enough jobs available for Skagit County high school graduates and young adults, increasing proportion of oldsters which, indirectly, means an increasing burden on the employed labor force.

Labor Force High proportion of unskilled workers, the large number of skilled workers working in Skagit County and living outside of the County.

Employment

Major problems in regard to employment are:

Salaries, Incomes have not kept pace with total County valuations for taxation purposes. This is partially a result of high capital investment, low employment type of industries, such as refineries, locating in this County. Since 1959, Skagit County has accounted for 1.8% of the total population in the State but only 1.4% of the total income in the State.

Agriculture Seasonality is a major problem in regard to agricultural employment in this County, both in production and in processing. An increasing proportion of the harvesting of crops in this County is being done by migratory workers, although agriculture is still a source of employment to students and housewives not seeking year-round employment.

Retail Sales There has been a decrease in the percent of effective buying income. In 1957, 85% of the effective buying income was spent in retail sales in Skagit County; in 1962 only 59% of the effective buying income was accounted for in retail sales.

Anticipated

Mining The Cascade Mountains contain ores bearing gold, silver, lead, copper and zinc which are relatively inaccessible at this time. Change in methods of mining

or productions, in economic conditions, or in market locations could make some of these minerals valuable additions to the resource production of Skagit County. The development of the Northern Cross-State Highway could open up these areas to possible exploitation.

The possibility of expanding mining operations in this County will increase as the demand grows for minerals that are not now being mined here commercially. Production of sand, gravel and building rock could increase by exporting to the Seattle Metropolitan area as sources closer to that area begin to dwindle. Deposits of sand and gravel in Skagit County are of an unusually high grade, particularly those in and near the Samish River. They can provide a source of material and employment for several decades.

Forests Existing stands of timber, if harvested on a sustained-yield basis can provide a continuing lumber and forest industry in Skagit County for many future decades. Some species are being undercut at the present time, but as facilities and markets expand it is likely that the yearly cut in these trees will increase.

Fishing Improved methods of refrigeration and handling no longer make it important that the catch be brought into the nearest port. The location of several processors on Puget Sound, plus the limited resource, however, tend to limit any expansion of processing in this County.

Agriculture The pressure to cover prime agricultural land in this County with residential subdivisions will tend to increase. If permitted, schools, service stations and shopping centers will follow the new homes out into the suburbs and areas that are now farmlands. In addition to being best suited to agricultural uses, these areas because of the flood hazard, high water table, and surface drainage problems should remain in agricultural use, it will be necessary to judiciously control future land uses so that prime soil in the agricultural sections is not needlessly taken out of agricultural production. If permitted, urban sprawl can take a tragic toll of a substantial portion of Skagit County's land and economy.

Services Service establishments represent the most stable businesses in the County. As per capita income rises more money is spent on services. A steady increase in number of employees

and wages paid in service establishments will result from the increasing demand for these services. It appears that the future of this type of establishment in Skagit County is good.

Wholesaling As basic industries expand it can be anticipated that wholesaling activities will keep pace, and as the population base and retail sales increase wholesaling establishments in Skagit County will expand to meet the demand.

A factor that might tend to affect expansion in Skagit County is the trend to concentrate wholesaling facilities in larger units in the centers of population, relying on truck and rail transportation to serve the smaller communities.

Retail Sales As industry in Skagit County becomes more diversified, wages will increase. This will have a marked effect upon retail sales. The increased dollars available will tend to change buying habits so that more of the non-essential, or luxury goods, will be purchased. (Food and staple items account for a definite proportion of the average family budget.) Thus even without a rapid increase in population there will be a definite increase in the retail sales in Skagit County during the oncoming years. Employment should continue to be steady with a small growth factor evident as work-weeks become shorter and as buying dollars increase.

However, from data available it appears that retail establishments in Skagit County could increase their sales considerably without a proportionate increase in either personnel or facilities.

Population Persons 65 years and older will continue to be an increasing proportion of total population. These retired persons, or oldsters, will tend to live together in groups near shopping centers or in the downtown fringe areas in local cities and towns.

During the coming decades the labor force in this County will receive higher pay, work shorter hours and will have more income to spend in additional leisure hours. They will also have an increasing number of youngsters and oldsters to support, directly or indirectly, through increasing taxes.

Government Employees

Trends observed during the last two decades indicate a continuing increase in the number of employees in federal, state, county and local government agencies. This will be in response to public demand for increasing services by government agencies. In spite of the trend toward automation, government employees will continue to increase in numbers, in training and in efficiency. Although government agencies do not provide revenue in the form of property taxes, their employees are primary workers, providing revenue for the salaries of many other clerks, workers and salesmen.

Income If personal incomes are to rise in proportion to the State average it will be necessary to supplement the oil refineries with other industries that will offer more employment opportunities to the growing labor force.

For the majority of the families in this County an anticipated increase in income will also mean a moderate increase in spendable income. With an increase in spendable income and in number of families, new shopping centers will be developed in the fringe areas of local cities. Considerable foresight and control will be needed to protect not only motorists and commuters but also the neighboring land owners.

Tourism There is an economic need in this County to provide a variety of tourist facilities. Out-of-state tourism is becoming an increasingly important source of revenue for the State and its various communities. In addition to benefiting businessmen, out-of-state tourism benefits the entire population, providing revenue for schools, parks, highways and other public facilities.

The anticipated increase in income and in leisure time points out the need for plans and action at this time in regard to needed future park and recreation areas, as well as scenic highways that will provide panoramas. This County has tremendous scenery to offer; it should be made easy for tourists and vacationers to view. Billboard regulation will be necessary to help conserve and protect the natural and scenic beauty and character of the land.

Facilities For Economic Growth

Analyses of the economic base of Skagit County have stated that there is adequate land, resources, cheap electric power and pure water to insure a strong potential for economic growth. These are the strong assets of Skagit County. However, these assets have not been sufficient in the past to overcome the inherent disadvantages of the Pacific Northwest:--lack of market and lack of population. However, with the growth of the Puget Sound Region and the Pacific Northwest, industrial development will increase.

One of the primary requirements for industrial development is land on which industry can develop. Although there are many thousands of acres of flat land in this County, these lands have significant drawbacks to their utilization. Most of the flat lands are located in the floodplain, which has a high water-table and requires buildings to be constructed on piling or floated on sand fills. This is not an insurmountable problem but it has a definite influence upon decisions of potential industry. Industrial use of these flat lands can disrupt agriculture, a basic industry in this County. To prevent this, considerable care must

be taken in comparing the value of agriculture as an existing industry to a proposed new or potential industry.

Excellent sites above the floodplain and the agricultural lands can be found in the Bay View Airport and Butler Hill Areas.

Development of the airport by the port districts could make these sites even more valuable for future industrial use. Several potential industrial sites exist in and around the towns and cities of this County. Industrial reserve sites are designated on the Comprehensive Plan-Map.

Unless they depend upon water transportation for their raw material or for delivery of their products, new industries will be free to locate in several sections of this County. Long range land use plans will indicate the sections in Skagit County in which new industries will be permitted and the type of performance standards they will be required to meet. Without these standards new industries may develop in locations in which the smoke, dust or odor created by their operations will pollute

the air, the land and the water-table on which they are located.

Needless pollution of land or air in Skagit County could become a monument to lack of foresight, particularly in the minds of the hundreds of residents who will be affected.

Goals

The following are major economic goals in this County:

- to provide year-round employment for all persons desiring employment.
- to diversify the economic base of Skagit County.
- to increase local processing and manufacturing of the natural resources of this County.
- to consider all effects of industrial land use on neighboring areas when sites are being selected for future industrial development.
- to prevent further contamination of the air, soil and water by industrial land use.
- to provide opportunities for employment in Skagit County for the high school graduates of this County.
- to increase tourism by the development and improvement of public and private recreation areas and facilities.

CHAPTER VII

LAND USE

The territory in Skagit County that can be classified as "Livable Area", -- land which is reasonably accessible, located out of the flood plain and prime agricultural areas, available for private development and is usable for homesites, provided sewage disposal, and drainage problems are overcome. The "Livable Area" occupies approximately 275 square miles, about 16% of the total 1735 square miles in this County. 1460 square miles, 84% of the total area, can be classified as Non-livable Area, -- territory that is occupied by mountains, steep hillsides, lakes, rivers, swamps, small islands and by public forest lands.

Analysis of the land use plan shows that incorporated cities occupy 6% of the Livable Area, unincorporated city fringe areas occupy 17% and rural territory occupies three-fourths of the total Livable Area.

Agriculture - Prime agricultural - floodplain lands occupy approximately 82,640 acres or approximately 6% of the total land of the county.

Residences occupy approximately one-third of the land in the cities, one-sixteenth of the land in city fringe areas and one-twentieth of the land in the rural areas.

Industry occupies 6% of the land in the cities and 7% in the fringe areas.

Commercial land use occupies only 3% of the land in the cities and two-tenths of 1% of the land in city fringe areas.

Vacant land accounts for one-fourth of the land in the cities and in the city fringe areas and three-fourths of the land in the rural areas.

In Skagit County approximately 53,000 persons live in 800 square miles of territory in which one-fourth of the land is occupied by farms and two-thirds of the land is vacant.

Problems

These are the major land use problems in Skagit County:

- residential development on prime agricultural - flood plain land

- construction of homes on land not suitable for septic tank sewage disposal
- threat of periodic flooding
- potential conflict of land uses in Skagit County

The extension of residential development along public roads in areas of prime agricultural land is creating a conflict of land uses in those areas. It increases the number of residents to the extent that commercial enterprises are attracted to those areas, and it creates a need for new schools or for increased school bus transportation. As a result of this development neighboring farmland, although actually in use in crop-growing, is subject to being assessed and taxed as residential land.

Many areas of land having inadequate septic tank drainage have been platted or sold by metes and bounds for homesites. Many of the sites are inadequate or even unusable for the individual septic tanks and the water supply that were planned by the developers.

Many lakes, streams and water bodies in Skagit County are being polluted by overcrowding of the residential land abutting those water areas, and the lack of adequate sewage disposal methods.

To serve as a guide and as a point of reference in long range planning and in the subdivision of land, the unincorporated territory in this County has now been classified and identified according to the suitability of the soil as a drainfield for septic tank disposal. This has

been described in Chapter IV of this Plan.

Records from previous floods indicate that a large part of the low-land area in Skagit County is subject to future inundation. Flood hazard regulations will be needed to prevent or minimize future loss of life and property.

Other problems in regard to land use in Skagit County are the following:

Commercial buildings and uses are occasionally constructed too close to public rights-of-way. As a result they not only create traffic hazards but they prevent future right-of-way widening except by costly expenditures of public funds for acquisition of the uses. Setback regulations will be needed to prevent such future expenditures.

Most of the commercial structures that have been and are being built provide inadequate offstreet parking areas. Customers have to park on the highway or back out onto the highway. Reasonable setback distances for structures from rights-of-way should be established.

Location of industry in relation to direction of prevailing winds must be carefully considered in order that residents in nearby areas are not forced to breathe polluted air. Adequate air

pollution control regulations will be needed to preserve our most vital resource - Air.

Many divisions of land are "premature subdivisions", -- plats creating lots for which there is little or no demand and which are "premature" in that sewage, water, and other improvements are not yet available.

Many homes are constructed or plumbed below a minimum safety, health and fire standard. Building and plumbing codes should be adopted to provide protection to the unwary purchaser.

An engineering study of the Fidalgo and Padilla Bay areas has concluded that industrial development in lower Fidalgo Bay is not feasible, is too expensive in the March Point area in Fidalgo Bay, is quite feasible in the lower section of Padilla Bay.

Among the potential land use conflicts in the County, the Bayview - Padilla Bay area remains as one of the more immediate and pressing concerns to Skagit County. Residents and property owners in the Bay View area and along the Bay-View - Samish Island shorelands propose Padilla Bay should remain as it is now: a tideland, waterfowl habitat.

On the other hand, developers propose to develop the shallow tide-flats in Padilla Bay into a dredge and fill industrial area, and a dredge and fill planned unit development (residential, commercial, schools, parks, etc.).

Factors that are to be considered in regard to the selection of land use in the Padilla Bay area are these:

- the economic need or demand for water-based industrial sites
- availability of existing land in Skagit County for water-based industrial sites
 - city fringe areas
 - Anacortes waterfront
 - Bay View Airport
 - industrial sites in local cities
 - Swinomish area
- proximity to highways and railroads
- industrial pollution of air and water
- feasibility of developing lower Padilla Bay into an industrial area
- trends in selection of industrial sites
- compatibility of land use

It can be concluded that industrial development of a portion of Padilla is feasible. The need and the demand for water-based industrial sites in the entire Bay, during the period encompassed in this Comprehensive Plan, are too nebulous to reserve the

entire Bay for industrial development.

Trends

Analysis of land use and population data reveals the trend toward the development of the land in suburban and city fringe areas and in the waterfront areas in Skagit County. Much of this suburban development has been along section line roads.

Anticipated Land Use Requirements

It is anticipated that land use in the unincorporated territory in Skagit County will be predominantly in the suburban fringe areas of the local cities and towns, as shown on the Comprehensive Plan.

Standards

Standards regarding commercial and industrial land use, shown in the Appendix, are an integral part of this element of the Plan. It is the intention of this Plan that these standards, and the classification and identification of soil suitability for septic tank drainfield be used as a guide by the Planning Commission and the Board of County Commissioners in all matters pertaining to zoning, rezoning, platting, variances and exceptions to zoning regulations.

Objectives

The major objectives of this element of the Plan are the following:

- to encourage the most appropriate use of the land that is available for development in this County
- to conserve, for agricultural use, land that is classed as prime agricultural soil and which is now being used for grazing dairy herds or crop growing
- to prevent, in the interests of public safety, residential development in existing and future airport approach zones
- to reserve areas in logical locations for future industrial land use
- to group together similar land uses
- to prevent mixed land uses

Proposed Land Use

Proposed land use in Skagit County is shown on the Comprehensive Plan Map.

In order to provide for future industrial development of the Bay View Airport - Padilla Bay - March Point area, industrial areas as shown on the land use map are proposed.

It is proposed that the remaining portion of Padilla Bay be reserved for residential-recreational use and development.

It is proposed that prime agricultural land that is now in

agricultural use shall be reserved exclusively for agricultural use.

It is proposed that new industrial land uses be developed only in areas reserved for industrial use.

In considering the requests of new commercial or industrial establishments to locate in areas that are not designated in this Plan for those uses emphasis shall be given to the proposed method of processing, the product to be manufactured, and the type and size of the proposed commercial establishment. In all such requests the effect of the proposed new enterprise upon neighboring land uses shall be seriously considered.

Implementation

In order to carry out the objectives and proposals in regard to future development of land in Skagit County:

- Existing County subdivision regulations should be developed to the extent necessary to carry out the objectives and the proposed land use and circulation elements of this

Comprehensive Plan.

- A new set of zoning regulations, based upon this Comprehensive Plan, should be prepared and adopted. Specific industrial performance standards should be established in the zoning regulations.
- Gradual discontinuance of non-conforming land uses and non-conforming structures adverse to the public interest should be encouraged.
- Continued efforts should be made to coordinate the elements of this Comprehensive Plan with a countywide regional plan, federal, state and local government plans and proposals for Skagit County.
- Development of new residential areas should be withheld in pollution problem areas, -- areas in which septic tank disposal is not satisfactory, -- until sewage treatment measures acceptable to County Health Departments are established.

CHAPTER VIII

TRAFFIC CIRCULATION

Existing Circulation

As indicated on the Comprehensive Land Use Map, the county network of highways and roads provides distribution from and access to the state highways, which in turn provide the major routes of travel between local cities and through the county.

The relationship between highways and land usage in this county is revealed by the pattern of section-line roads in the suburban areas, by the more detailed pattern of county roads in city fringe areas, and by the scarcity of roads in the agricultural and forest lands.

Problem Areas, Needs

Basic needs in regard to circulation in Skagit County are improvements of existing roadways, new routes to connect existing county roads and relocation of some of the existing rights-of-way. Distribution of needed and anticipated improvements, relocations, and new routes and new bridges on state and county highways.

The most pressing needs are a high level bridge over the

Swinomish Slough and a by-pass route around the City of Burlington.

Potential needs are scenic highways and a by-pass route south of Mount Vernon and north of Sedro-Woolley.

There is a need for frontage roads and adequate offstreet parking areas in individual and grouped commercial establishments. This need is most noticeable in the older commercial establishments that were constructed too close to front property lines, providing no offstreet parking space.

The need for centerline dividers to prevent a continually increasing number of left-turns into existing commercial establishments is becoming more apparent.

Trends

There is an increasing trend toward dispersal of new homes in the suburban areas throughout the nation, resulting in an accompanying dispersal of schools, commercial and industrial establishments. As a result there is an increasing trend, in the interests of public

safety, toward the requirement of frontage roads in new commercial and industrial developments.

Anticipated Circulation & Requirements

In estimating future increase in traffic volumes on county and state highways in Skagit County these factors are considered:

- existing volumes
- anticipated increase in population
- potential land use
- the effect of a new cross-state highway
- steadily increasing number of commuters
- increasing number of tourists and vacationers

Objectives

It is an objective of this element of the Comprehensive Plan to:

- develop a network of trafficways that will provide maximum circulation for the various types of traffic within this County.
- minimize travel distance and travel time between points in this County.
- separate, wherever possible, vehicular traffic from pedestrian traffic by means of sidewalks.
- provide routes for truck traffic and through-traffic that will not conflict with local traffic.
- provide by-pass highways for tourists and commuters who do not have local downtown areas as their destination.

- Standards, listed in the Appendix, should be used as a guide and as a goal in the location, construction and use of highways in this County.

Circulation Plan

It is proposed that by-pass routes be constructed around Mount Vernon, Sedro-Woolley and Burlington.

It is proposed that a bridge over the Swinomish Slough, adequate in height to provide for uninterrupted traffic over the Swinomish Waterway, be constructed by 1970.

It is proposed that Interstate Highway #5 will be widened from four lanes to six lanes. Priority should be given to the Conway Interchange. The first phase of the proposed widening, scheduled for initial construction for the spring of 1969, will extend from a point north of the Milltown Road to the Johnson Road.

It is proposed that new scenic highways, providing frequent vista points and panorama parks, be constructed in this County as shown on circulation maps.

It is proposed that interchanges be constructed at the inter-sections of Interstate Highway #5 and the following roads: Milltown-Starbird Road, Conway Junction, Hickock Road, Anderson Road.

It is proposed that a controlled access highway be constructed by 1985 on a Lake McMurray, Big Lake - Sedro-Woolley - Wickersham - Sumas route through Skagit County.

It is proposed that a new cross-state highway, originally authorized by the 1893 State Legislature as a Cascade Wagon Road, be constructed by 1975.

Implementation

In order to carry out the policies and objectives and put into action the proposed developments in this element of the Plan:

- coordination with City, State and Federal Government agencies involved in these proposals should be continued and increased.

- requirements in Skagit County Subdivision Regulations regarding dedication of specific rights-of-way, where essential to this Plan, should be established and maintained.
- the following policies should be established: It shall be a policy of the Planning Commission and the Board of County Commissioners to:
 - require frontage roads in new commercial developments.
 - require adequate offstreet parking for all new structures, with required parking spaces to be determined by the type of commercial, residential or industrial establishment.
 - provide for the free movement of traffic on arterial streets and roads by gradually eliminating street parking on arterial streets in commercial districts.
 - to construct centerline dividers wherever they are needed to reduce the traffic hazards caused by left-turn movements.
 - an official Road Right-of-Way Map and Ordinance shall be prepared and adopted.

COMMUNITY FACILITIES

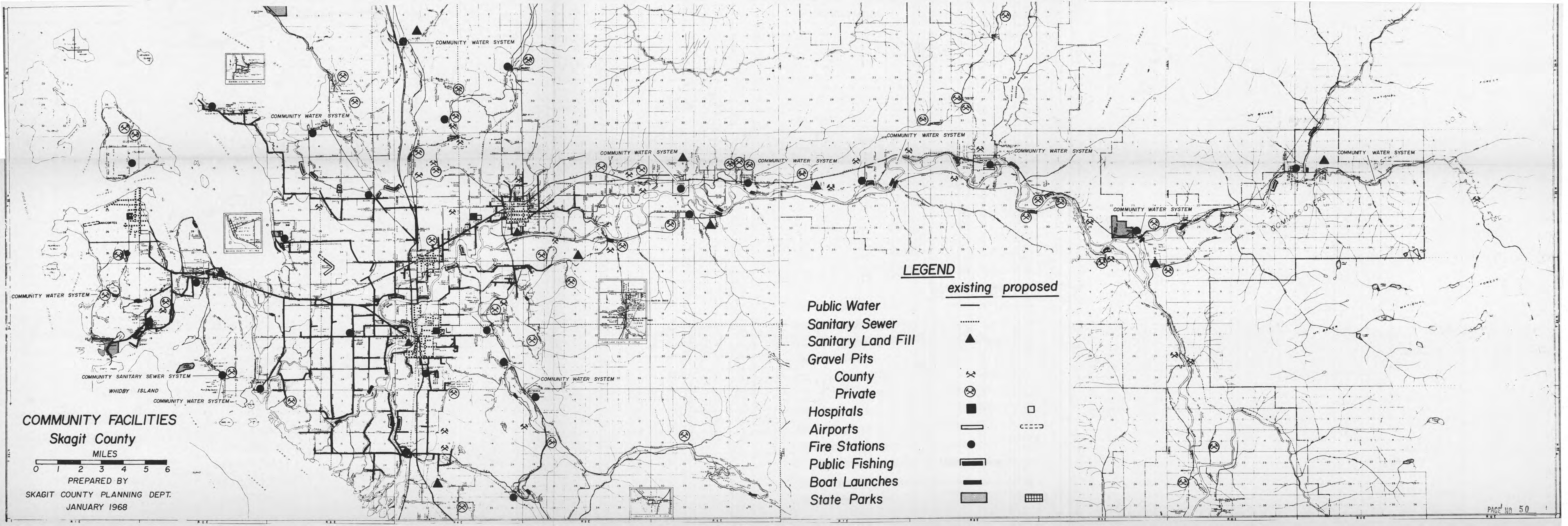
Skagit County

MILES

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PREPARED BY
SKAGIT COUNTY PLANNING DEPT.
JANUARY 1968

LEGEND

- | | <u>existing</u> | <u>proposed</u> |
|--------------------|-----------------|-----------------|
| Public Water | — | |
| Sanitary Sewer | ----- | |
| Sanitary Land Fill | ▲ | |
| Gravel Pits | ⊗ | |
| County | ⊗ | |
| Private | ⊗ | |
| Hospitals | ■ | □ |
| Airports | ▬ | ▬ |
| Fire Stations | ● | |
| Public Fishing | ▬ | |
| Boat Launches | ▬ | |
| State Parks | ▨ | ▨ |



COMMUNITY FACILITIES

Existing & Needed

Water Analysis of the long range water supply in this County indicates that there is no likelihood of any curtailment of economic activity in Skagit County because of a shortage of water. Sufficient quantities for future residential requirements and potential heavy water-using industries may be obtained from any one or combination of three sources:

- pumping and treating water from the lower reaches of the Skagit River.
- gravity flow from the streams in the higher mountains.
- pumping from shallow, high-capacity wells located adjacent to the Skagit River. A county-wide sewer, water, and drainage study will be prepared provided the pending county application for federal planning assistance funds is approved.

Courthouse The Skagit County Courthouse is 41 years old.

It is now at capacity and will need future replacement.

The existing courthouse, as well as the site upon which it is located, is not adequate for the anticipated normal future needs. As county departments grow in response to increasing needs and demands for more and better govern-

mental services, a new and larger site will be necessary. A county-city civic center should be established.

Garbage Disposal Areas Sites now in use are adequate for existing population. Additional sites needed to provide for future distribution of population should be selected and identified in the immediate future.

Gravel Pits for state and county highway construction are situated in various locations throughout the County. Considerable care is needed by the County to prevent any gravel pit from becoming a public hazard to surrounding property and residents, particularly to little children.

Hospitals

At the present time, the hospitals in this County are well distributed and in proportion to population. They will need future enlargements, however, to provide adequately for anticipated increases in population. United General Hospital, located

between Burlington and Sedro-Woolley, has recently been constructed and is planning to expand. Skagit Valley Hospital in Mount Vernon is, at present, expanding.

Airport

The public owned airport in Skagit County is well constructed, is adequate for present needs and is conveniently located in regard to industrial development. Bayview Airport is scheduled for development as jet-conventional aircraft-industrial complex by the Port of Anacortes and the Port of Skagit County. The Port of Anacortes proposes a 1968 completion of a 3000 foot runway at the west end of Fidalgo Island.

Schools The following information is revealed regarding the public schools in Skagit County.

Anacortes School District No. 103

Island View Elementary School - Grades K-6-generally serves a portion of the City of Anacortes. It contains twenty classrooms on a site of 9.3 acres with the present enrollment of 511 pupils. The present site is deficient by 0.8 acres in meeting current enrollment level minimum standards. Because of the limitations imposed by the small site size and the availability of larger sites in conjunction with the several other elementary schools in the vicinity better suited to expansion, no expansion of this site is recommended or anticipated.

Mt. Erie Elementary School - Grades K-6 - generally serves a portion of the City of Anacortes. It contains twelve classrooms on a site of 15.7 acres with a present enrollment of 250 pupils. In keeping within recommended standards regarding

the maximum capacity of individual school facilities, thirteen additional classrooms will be needed by 1985.

Whitney Elementary School - Grades K-6 - generally serves a portion of the City of Anacortes. It contains eight classrooms on a site of 3.5 acres with a present enrollment of 227 pupils. Due to the small site size and the existing facilities, this site is recommended to be discontinued as a school facility in the future, and it is recommended that it serve, instead, as an administrative center.

Fidalgo Elementary School - Grades K-6 - serves the western portion of Fidalgo Island, not including the City of Anacortes or that portion of the La Conner School District. It contains fourteen classrooms on a site of 15.0 acres with a present enrollment of 341 pupils. The majority of the existing service area is classified as residential land use on the Comprehensive Land Use Plan and that a great percentage of the residents in this area are retirement age or are reaching it. At the present time, over 100 pupils commute from the City of Anacortes to Fidalgo School. Considering these factors, a minimum of two additional classrooms will be needed by 1985.

Anacortes Junior High School - Grades 7-9 - serves the entire district. It contains 31 classrooms on a site of 12.5 acres with a present enrollment of 619 pupils. The present site size is deficient by 3.5 acres in meeting minimum standards for current enrollment levels. Considering the land use of the service area, a minimum of 8 additional classrooms will be needed by 1985.

Anacortes Senior High School - Grades 10-12 - is situated on an 82 acre site with 31 classrooms. Present enrollment is 586 pupils with a classroom average of 18.9 pupils. In studying present projections and existing facilities, a minimum of four additional classrooms will be needed by 1985.

Summary - Anacortes School District No. 103

In keeping with recommended standards of the number of classrooms and pupils per school and the anticipated development in this area, a new school site of 10 acres in the Skyline area

should be considered. This school should be planned to house a minimum of 450 pupils in 16 classrooms.

The minimum needs of the entire district, as anticipated, include 31 additional elementary classrooms, 8 additional junior high classrooms, and 4 additional senior high classrooms.

Burlington School District No. 100

Roosevelt Elementary School - Grades K-3 - serves the area north and east of the City of Burlington. It contains 5 classrooms on a site of 1.0 acre with the present enrollment of 159 pupils. The present site size is deficient by 5.5 acres in meeting current enrollment level minimum standards. Due to the small site size, no expansion would be possible on the existing site. The site should be considered as a future administrative center for the district. Thus 5 additional classrooms must be provided elsewhere.

West View Elementary School - Grades 1-8 - serves the area north and south of the City of Burlington. It contains 18 classrooms on a site of 10 acres with a present enrollment of 430 pupils. The existing site is sufficient for present enrollment but additional area will be needed in the future. A major portion of the existing service area is in agricultural land as designated by the Comprehensive Land Use Plan. Considering the anticipated growth of population in the existing service area and average pupils per classrooms, by 1985, a minimum of 4 additional classrooms will be needed to service this area.

Umbarger Elementary School - Grades 1-8 - serves the area north and east of the City of Burlington. It contains 18 classrooms on a site of 10 acres with a present enrollment of 490 pupils. Classes presently average 27.2 pupils per room. The present site is deficient by 3.0 acres in meeting current enrollment level minimum standards. The existing service area is divided into agricultural and residential land use as designated by the Comprehensive Land Use Plan.

By 1985, a minimum of 6 additional classrooms will be needed to provide this area with adequate service.

Allen Elementary School - Grades K-8 - serves the Allen-West and Bayview Ridge area. It contains 17 classrooms on a site of 12.0 acres with the present enrollment of 505 pupils. The existing site has sufficient area for present and future enrollment needs. With the anticipated residential growth in the Bayview Ridge area, by 1985, a minimum of 4 additional classrooms will be needed to service this area.

Edison Elementary School - Grades K-8 - serves the surrounding farm area, Samish Island, and the westerly portion of Bow Hill. It contains 10 classrooms on a site of 8.0 acres with a present enrollment of 246 pupils. The existing site has sufficient area for the present enrollment but will need additional area in the future. The majority of the existing service area is in an agricultural land use classification as designated by the Comprehensive Land Use Plan. By 1985, a minimum of 4 additional classrooms will be needed to service this area.

Senior High Grades 9-12 is situated on a site of 29 acres. It contains 30 teaching stations, including many substandard classrooms, with an enrollment of 733 pupils. The present main building is 44 years old and is in such a substandard condition that it should be replaced with a modern adequate facility which would include new classrooms, vocational area, administrative offices, auditorium, multi-purpose room and cafeteria. A minimum of 10 additional classrooms and acreage will be needed by 1985.

Summary - Burlington School District #100

Presently, Burlington School District is near 100% capacity. The senior high school should be given the highest priority, considering 10 of the existing classrooms are substandard and the cafeteria will be obsolete in the near future. A total of 18 additional classrooms will be needed for the elementary schools and 10 classrooms for the senior high school.

La Conner School District No. 311

La Conner Elementary School - Grades 1-8 - serves the farm land to the north, Pleasant Ridge area, and the Swinomish Indian Reservation. It contains 12 classrooms on a site of 11 acres and a present enrollment of 335 pupils. The existing service area covers 3 different types of land area; the first is the Pleasant Ridge area. This area, located between La Conner and Mount Vernon, is classified on the Comprehensive Land Use Plan as Residential. The second area, located in the northeast portion of the existing service area, is classified as Prime Agricultural land. The third area is the Swinomish Indian Reservation, with the majority of this land under the jurisdiction of the federal government. No Comprehensive Land Use Plan has been prepared for this area; consequently, future population projections and school needs have not been determined. Considering the land use classifications and the projected population in the existing service area, a minimum of four additional classrooms will be needed by 1985.

La Conner Senior High School - Grades 9-12 - is situated on a site of 10.0 acres with 9 classrooms. Present enrollment is 115 pupils. Considering the factors of the existing service area as stated above, little, if any, expansion of school facilities is anticipated by 1985.

Mount Vernon School District No. 320, No. 317

Cleveland Elementary School - Grades 1-5 - serves the area southwest of Mount Vernon, east of the Skagit River. It contains 5 classrooms on a site of 3.0 acres with a present enrollment of 146 pupils. The present site size is deficient by 3.5 acres in meeting current enrollment level minimum standards. The Mount Vernon School District and the Skagit County Fair Board should consider the cooperative practice and trend of consolidation of elementary school sites and neighborhood recreation sites. In order to help offset the site size deficiency, a portion of fairground property could be utilized for school recreation purposes.

A major portion of the existing service area is classified in the Comprehensive Land Use Plan as Agricultural land. Because of flood problems, high water table, surface drainage problems and its use as prime agricultural land, this area should be retained in agricultural use. A minimum of one additional classroom will be needed by 1985.

Jefferson Elementary School - Grades 1-7 - serves the area southeast of Mount Vernon. It contains 18 classrooms on a site of 10 acres with the present enrollment of 567 pupils. The existing site size is sufficient for present enrollment but will need additional area in the future. The majority of the existing service area is designated on the Comprehensive Land Use Plan as a residential area. With the anticipated construction of a seventh and eighth grade school serving the entire district, eliminating seventh grade, a minimum of four additional classrooms would be needed by 1985.

Lincoln Elementary School - Grades 1-6 and 8 - serves a portion of present City of Mount Vernon. It contains 14 classrooms on a site of 3.0 acres with a present enrollment of 425 pupils. The present site size is deficient by 6.0 acres in meeting current enrollment level minimum standards. The construction of a seventh and eighth grade school serving the entire district would eliminate the need for the eighth grade at Lincoln School. No new expansion seems feasible or necessary by 1985 on this site.

Madison Elementary School - Grades 1-6 - serves the area northeast of Mount Vernon, south of the Skagit River. It contains 12 classrooms on a 17.5 acre site with a present enrollment of 335 pupils. The existing site is sufficient for the present enrollment but will need additional acreage in the future. Approximately three-quarters of the existing service area is classified in the Comprehensive Land Use Plan as a Residential area. A minimum of 5 additional classrooms will be needed by 1985.

Roosevelt Elementary School - Grades K-4 - serves a portion of the City of Mount Vernon. It contains 7 classrooms on a 2 acre site with a present enrollment of 260 pupils. The present school site is deficient by 5.5 acres in meeting current enrollment level minimum standards. In considering site size and location, no expansion seems feasible or necessary.

Washington Elementary School - Grades K-6 serves the area west of Mount Vernon. It contains 13 classrooms on a site of 8.0 acres with a present enrollment of 412 pupils. The present site is deficient by 1.0 acre in meeting current enrollment level minimum standards. It is recommended that additional site acreage be acquired. The majority of the existing service area is designated in the Comprehensive Land Use Plan as agricultural land. Considering that the existing service area, because of its nature and use as prime agricultural land, should not develop as a high density residential area, a minimum of two classrooms will be needed by 1985.

Conway Elementary School - Grades K-8 serves the Conway Hill area and the Fir Island area. It contains 14 classrooms on a site of 8.0 acres with a present enrollment of 317 pupils. The existing site is sufficient at the present time but will need additional area in the future. The existing service area generally divided into agricultural, residential, and forestry-recreation land use. Because of the fast developing growth to the south and other factors conducive to development, this service area is expected to have a rapid growth by 1985. Taking in consideration the construction of a seventh and eighth grade school serving the entire district, a minimum of 8 additional classrooms will be needed by 1985.

Mount Vernon Senior High - Grades 9-12 - is situated on a 30 acre site with 55 classrooms. Present enrollment is 1202 pupils with a classroom average of 21.8 pupils. The existing site is sufficient for the present but additional area should be considered in the future. In studying present and future projections, a minimum of 4 additional classrooms will be needed by 1985.

Summary - Mount Vernon School District No. 320, No. 317

The Mount Vernon School District shows a definite need for new seventh and eighth grade facilities. A minimum of a 20 acre site would be needed in a centralized location. This school should be planned to house a minimum of 650 pupils in 22 classrooms. The projected needs study is based on the construction of this school. The needs for the district will be a minimum of 42 additional elementary classrooms and a minimum of 4 additional senior high classrooms.

Sedro-Woolley School District No. 101

Purcell Elementary School - Grades 1-3 - serves the area within 2-3 miles of City of Sedro-Woolley. It contains 20 classrooms on a site of 4.7 acres with a present enrollment of 472 pupils. The present site is deficient by 5 acres in meeting current enrollment level minimum standards. In keeping within the recommended standards, a maximum of 5 additional classrooms should be constructed by 1985. But, before any construction is commenced, additional acreage should be purchased.

Central Elementary School - Grades 4-6 - serves the same area as the Purcell Elementary School. It contains 18 classrooms on a site of 2.4 acres with a present enrollment of 443 pupils. The present site is deficient by 7.0 acres in meeting current enrollment level minimum standards. In keeping within the recommended standards, a maximum of seven additional classrooms should be constructed by 1985. But before any construction is initiated, additional acreage should be purchased.

Big Lake Elementary School - Grades 1-6 - serves the area north to Big Rock and the area south and east to the county line. It contains 6 classrooms on a site of 9.2 acres with a present enrollment of 139 pupils. The present site is sufficient in size to accommodate any expansion anticipated by 1985. A minimum of 3 additional classrooms will be needed by 1985.

Clear Lake Elementary School - Grades 1-6 - generally serves the surrounding area and east on the south side of the Skagit River.

It contains 7 classrooms on a site of 4.3 acres with a present enrollment of 182 pupils. The present site is deficient by 2.5 acres in meeting current enrollment levels. A minimum of 4 additional classrooms will be needed by 1985.

Samish Elementary School - Grades 1-6 - serves the northern portion of the district, north of the Mosier Road. It contains 4 classrooms on a site of 4.3 acres with a present enrollment of 100 pupils. The present site is deficient by 1.7 acres in meeting current enrollment level minimum standards. A minimum of 3 additional classrooms will be needed by 1985.

Hamilton Elementary School - Grades 4-6 - serves the area between the Hoehn Road and the Lusk Road. It contains 6 classrooms on a 7 acre site with a present enrollment of 83 pupils. Little, if any, expansion is anticipated by 1985.

Lyman Elementary School - Grades 1-3 serves the same area as Hamilton Elementary School. It contains 3 classrooms on a site of 7.0 acres with a present enrollment of 95 pupils. A minimum of one additional classroom will be needed by 1985.

Cascade Junior High School - Grades 7-9 - is situated on a 12.8 acre site with 27 classrooms. Present enrollment is 688 pupils with a classroom average of 25.4 pupils. The present site is deficient by 4.0 acres in meeting current enrollment level minimum standards. A minimum of 6 additional classrooms will be needed by 1985. Consideration should be given to the current trend of transition from Junior High Schools (grades 7-9) to middle schools (grades 6, 7 and 8).

Sedro-Woolley Senior High School - Grades 10-12 - is situated on a 14.0 acre site with 31 classrooms. Present enrollment is 586 pupils with a classroom average of 18.9 pupils. The present site is deficient by 1.8 acres in meeting current enrollment needs. By 1985, a minimum of 2 additional classrooms will be needed, however, if the high school is converted to a 4-year high school, additional teaching stations will be needed.

Summary - Sedro-Woolley School District No. 101

Without the purchase of additional acreage at both the Purcell and Central Elementary Schools, expansion of these facilities should not be undertaken. The construction of a new elementary school in a central location should be considered. The new school should be on a site with the minimum of 10 acres with a minimum of 16 classrooms to house 450 pupils. The 1926 portion of the existing high school should be remodeled, and the 1903 structure should be replaced. A total of 27 additional classrooms will be needed for the elementary schools and 6 classrooms for the junior high school and 2 classrooms for the senior high school.

Concrete School District No. 102

Concrete Elementary School - Grades K-8 - serves the upriver area, east of the Lusk Road. It contains 15 classrooms on a site of 8.0 acres with a present enrollment of 226 pupils. The existing building is over 50 years old and is gradually reaching obsolescence. Replacement of this facility should be considered before 1975.

Marblemount Elementary School - Grades 1-6 - serves the easterly portion of Skagit County. It contains 5 classrooms on a site of 5.0 acres with a present enrollment of 33 pupils at the present time. Two classrooms are not used. The existing building is over 50 years old but is structurally sound and meets all current standards.

Rockport Elementary School - contains 3 classrooms, a gymnasium, and a full basement on a site of 5.0 acres. At the present time, this facility is not in use.

Concrete Senior High - Grades 9-12 - is situated on a site of 20 acres with 18 classrooms. Present enrollment is 201 with a classroom average of 13.4 pupils. At the present time, 5 classrooms are not in use.

Summary - Concrete School District No. 102

Concrete High School serves not only the eastern section of Skagit County but also the eastern section of Whatcom County. Concrete provides high school facilities for two third-class districts in Whatcom County, consequently, any development in the Cascade Pass area in Whatcom County may influence the high school needs in Concrete.

Because of the remoteness of the areas served, the Darrington and Concrete School Boards are conducting a two-year study relative to consolidation.

Construction of a new elementary school in Concrete before 1975 is anticipated. This school should be planned to house a minimum of 230 pupils in 9 classrooms. No other additional expansion will be necessary by 1985.

Summary - All School Districts - Skagit County

- More than one-half of all public school buildings in Skagit County are filled to capacity.
- High school buildings throughout the County are old; median age of the buildings is 45 1/2 years.
- When compared to nationally recognized school standards most of the school buildings in Skagit County are on undersized school sites.
- Many school buildings in this County are not efficient, and each year they are getting older and more obsolete.
- Where possible, school boards, park boards, fairground boards and other agencies should consolidate school facilities with neighborhood and regional park and recreation facilities.

TABLE 10

SUMMARY OF EXISTING - NEEDED SCHOOL FACILITIES IN SKAGIT COUNTY - 1965 +

School Districts	Grades	Site(Acres)	Classrooms	School Buildings Age	Present Site Deficiencies(Acres)	Classrooms Needed	Remarks
<u>Anacortes</u>							
Island View	K-6	3.3	20	10	6.8	0	
Mt. Erie	K-6	15.7	12	12	0	13	
Whitney	K-6	3.5	8	7	3.7	0	Recommended Administrative Center
Fidalgo	K-6	15.0	14	11	0	2	
Junior High	7-9	12.5	31	21	3.5	8	
Senior High	10-12	82.0	31	37	0	4	
<u>Burlington</u>							
Roosevelt	K-3	1.0	5	39	5.5	0	Recommended Administrative Center
West View	1-8	10.0	18	15	0	4	
Umbarger	1-8	10.0	18	10	3.0	6	
Allen	K-8	12.0	17	1	0	4	
Edison	K-8	8.0	10	42	0	4	
Senior High	9-12	29.0	24	43,9,5	10.3	10	Replacement of old building
<u>Concrete</u>							
Concrete	K-8	8.0	15	51	0	0	Replacement of existing facility
Marblemount	1-6	5.0	5	53	0	0	
Rockport		5.0	3		0	0	Presently not in use
Senior High	9-12	20.0	18	16	0	0	
<u>La Conner</u>							
La Conner	1-8	11.0	12	32,7,4	0	4	
Senior High	9-12	10.0	9	47	0	0	
<u>Mount Vernon</u>							
Cleveland	1-5	3.0	5	30	3.5	1	Recommend consideration of utilization of portion of fairground for school recreation purposes
Jefferson	1-7	10.0	18	12	0	4	
Lincoln	1-6,8	3.0	14	30	6.0	0	
Madison	1-6	17.5	12	14	0	5	
Roosevelt	K-4	2.0	7	55	5.5	0	
Washington	K-6	8.0	13	18	1.0	2	
Conway	K-8	8.0	14	30	0	8	
Senior High	9-12	30.0	55	46,30,15,4	0	4	Main building remodeled 1965
<u>Sedro-Woolley</u>							
Purcell	1-3	4.7	20	17	5.0	5	
Central	4-6	2.4	18	43	7.0	1	
Big Lake	1-6	9.2	6	33	0	3	
Clear Lake	1-6	4.3	7	6	2.5	4	
Samish	1-6	4.3	4	6	1.7	3	
Hamilton	4-6	7.0	6	48	0	0	
Lynan	1-3	7.0	3	33	0	1	
Cascade Junior	7-9	12.8	27	11	4.0	6	
Senior High	10-12	14.0	31	53	1.8	9	

Recreation Areas

Tables 11, 12, and 13 list existing recreation demand, supply and needs for Skagit County through 1985. Comparison of data in Tables 11, 12, and 13 with national recreation standards shows that there is a shortage of neighborhood parks, playfields and playgrounds in the city fringe areas in this County.

Trends

Throughout the United States there are trends toward:

- The consolidation of city and county, and sometimes federal and state offices and agencies together into one building. This is usually a County-City Building. These new structures are surrounded by large public parking areas which, when situated adjacent to a business district, provide parking for evening and Saturday customers of nearby stores and commercial establishments:
- The rehabilitation of gravel pits so that they can be used for county parks or small industrial land uses, rather than left as community eyesores and frequently as death traps for little children.
- The acquisition of public recreation areas on sites that are shown in official community and regional park plans.
- The acquisition of gullies, open fields and wooded areas as "greenbelts", to be preserved in their natural state for the enjoyment of future generations.
- The combination of county and city libraries into large regional libraries.
- The designation of large triangular-shaped parcels of land at the end of airport runways for Airport Hazard Zones in which residential structures are prohibited, and other structures are limited in height in proportion to their distance from the end of anticipated runways.
- The consolidation of elementary school sites and neighborhood park sites. This results in the construction of playgrounds and playfields in a school-ground-park that is adequate in size and thus more frequently used, particularly during after-school hours, weekends and school vacations.

These trends should become accepted practice in Skagit County during the next decade.

Anticipated

It is anticipated that the use of the existing county courthouse will exceed its capacity to the extent that enlargement or replacement will occur prior to 1980.

It is anticipated that the existing school structures in this County that are old or obsolete will be replaced by classrooms and buildings as needs become urgent.

Standards

Recognized standards, shown in the Appendix, should serve as a guide in developing and implementing regulations and should be used as reference by the Planning Commission in making recommendations, and by the Board of County Commissioners or the local school boards in making decisions regarding community facilities.

Objectives

It is an objective of this element of the Plan to establish and maintain community facilities in this County that will be in line with nationally recognized standards.

It is a specific objective of this Plan to encourage conservation and, where necessary, restoration of natural beauty in this County by recommending regulations for signs, auto wrecking yards, junk yards, etc.

It is an objective of this element of the Plan to provide appropriate allotments of land developments, and in existing areas where they are deficient, to meet the basic requirements of communities: adequate streets, sidewalks, school sites and recreation areas.

Park & Recreation Areas

Recreation surveys and analyses reveal that one-fifth of the average American's free time goes into recreation, and that as incomes rise this percentage will increase. This will result in a demand for additional recreation areas and facilities in all cities and communities, including Skagit County.

While the population in the State of Washington was increasing from 2.4 million in 1950 to 2.8 million in 1960, attendance in state parks was increasing from 5.3 million to 18.2 million, -- and is expected to increase to 52.5 million by 1970. Proportionate increases are anticipated in the four existing state parks in this County.

As indicated in Tables 11 and 12, the majority of the recreation areas and facilities in this County are tourist and fisherman-oriented.

There is a shortage of playfields and neighborhood parks in the suburban fringe areas of most of Skagit County's cities and towns. This shortage of recreation areas in close proximity to the people who need them at the present time and who will need them in the foreseeable future demands attention.

The growing demand for pleasure driving indicates that many persons are interested in just relaxing and viewing scenery. This points out a need for panorama parks, scenic highways and sign control regulations in the County.

It is anticipated that the need for additional recreation areas, scenic highways and panorama parks will be fulfilled, in part, by the use of State and Federal funds for the purchase and maintenance of recreation areas in Skagit County.

Proposed Recreation Plan

To meet existing and future recreation needs it is proposed that Skagit County:

- provide more neighborhood parks in its city fringe areas, in line with a county-wide recreation plan.
- provide new marine parks for the continually increasing number of motorboat recreationists.
- provide greenbelts in city fringe areas to preserve the open space environment of this County for future generations.
- provide panorama parks that will enable tourists and vacationers to observe the islands and the mountains of this County.
- provide for the development of Fidalgo Bay as a fish farm.
- provide county parks with ample sites reserved for the ever increasing number of vacation trailers.
- take advantage of the opportunity to meet demands for future recreation areas by a systematic "plan and acquire" course of action.
- coordinate a County-wide Park and Recreation Plan with the plans of the Bureau of Outdoor Recreation and with the State Parks and Recreation Commission.

The Skagit River with its geographic setting possesses natural and recreational values that are unique and outstanding. The view from this water highway provides primitive and rural-pastoral scenery that is not easily available elsewhere in the Western United States.

Community Facilities - Summary

To provide for future extension of existing runways and for development of Airport Hazard Zones, it is proposed that territory which will be needed for that purpose be so designated in

the immediate future.

It is proposed that new school sites, school buildings and additional classrooms be constructed to replace the buildings and facilities that are and will become old or inadequate in time to meet the needs as they occur.

It is proposed that additional garbage disposal areas be obtained at an early date, identified and utilized with the objective of preventing potential disputes among home owners regarding location of these areas. In selecting future sites, care shall be taken in regard to the distribution of population and the direction of prevailing winds.

A Skagit County Park Plan has been prepared showing the type and the location of recreation sites and facilities needed and recommended to (1) meet recreation standards, (2) qualify for Federal and State financial aid, (3) provide adequate

areas and facilities for all age groups of future Skagit County residents. This Plan shall include recommended priority of site acquisition. The Plan should be reviewed, revised and updated periodically.

Implementation

In order to meet existing and anticipated needs and to carry out the objectives of this element of the Comprehensive Plan the long range plans of County departments and other government agencies administering community facilities should be closely coordinated into a county-wide regional plan.

A land acquisition program and a long range financial plan, which will detail the priority of acquisition of proposed recreation areas and facilities, should be established and maintained.

A joint recreation program with local government agencies should be developed and maintained.

TABLE 11

PUBLIC RECREATION DEMAND

<u>Standards</u>	<u>Classification</u>	<u>1965</u> <u>Pop. 56,800</u>	<u>1970</u> <u>Pop. 63,000</u>	<u>1975</u> <u>Pop. 70,300</u>	<u>1980</u> <u>Pop. 78,400</u>	<u>1985</u> <u>Pop. 87,500</u>
<u>500 Activity Days</u> <u>Acre</u>	Beaches	30,170 60 ac.	41,760 84 ac.	56,300 113 ac.	79,500 159 ac.	109,000 218 ac.
<u>2912 Activity Days</u> <u>Acre</u>	Picnicking	222,840 70 ac.	282,464 97 ac.	352,352 121 ac.	457,184 157 ac.	591,136 203 ac.
<u>1750 Activity Days</u> <u>Acre</u>	Developed Camping	350,000 200 ac.	402,250 230 ac.	491,184 281 ac.	621,000 355 ac.	798,500 456 ac.
<u>500 Activity Days</u> <u>Acre</u>	Hiking	39,760 80 ac.	50,400 101 ac..	70,300 140 ac.	94,080 188 ac.	131,250 263 ac.
<u>125 Activity Days</u> <u>Acre</u>	Hunting	24,080 193 ac.	34,100 273 ac.	51,390 411 ac.	70,880 567 ac.	95,750 766 ac.
<u>375 Activity Days</u> <u>Acre</u>	Fishing	113,600 303 ac.	157,500 420 ac.	224,960 599 ac.	290,080 773 ac.	350,000 963 ac.
<u>333 Activity Days</u> <u>Acre</u>	Golf	56,800 170 ac.	63,000 189 ac.	70,300 211 ac.	78,400 235 ac.	87,500 263 ac.
<u>800 Activity Days</u> <u>Acre</u>	Playground	56,800 71 ac.	63,000 79 ac.	70,300 88 ac.	78,400 98 ac.	87,500 109 ac.
<u>800 Activity Days</u> <u>Acre</u>	Playfield	56,800 71 ac.	63,000 79 ac.	70,300 88 ac.	78,400 98 ac.	87,500 109 ac.
<u>800 Activity Days</u> <u>Acre</u>	Neighborhood Park	56,800 71 ac.	63,000 79 ac.	70,300 88 ac.	78,400 98 ac.	87,500 109 ac.

Total Demand - 3,399 Acres

1. Increasing Demand for Recreation is due to increasing population, increasing interest, increasing leisure time, increasing per capita disposable income, better mobility and tourism.
2. Activity days are defined as: participation by one person during part or all of one day in recreation.
3. The above demand projections were based on the demand estimates for the State of Washington published in the 1963 Governor's Report, the Recreation demand distributed from the National Recreation Survey and the particular problems, and characteristics peculiar to Skagit County.

TABLE 12

RECREATION SUPPLY (Existing & Proposed) - What We HaveExisting Only -
No definite proposals*

TYPE of AREA	<u>D.N.R.</u> +					<u>St. Parks</u>					<u>US Forest</u>					<u>St. Game</u>					Anacortes	Mt. Vernon	Burlington	Sedro-Woolley	Concrete	Lyman	La Conner	Hamilton	Private	County-Exist	TOTAL (acres)
	<u>Exist</u>	<u>Proposed</u>	<u>Proposed</u>	<u>Proposed</u>	<u>Proposed</u>	<u>Exist</u>	<u>Proposed</u>	<u>Proposed</u>	<u>Proposed</u>	<u>Exist</u>	<u>Proposed</u>	<u>Proposed</u>	<u>Proposed</u>	<u>Exist</u>	<u>Proposed</u>	<u>Proposed</u>	<u>Proposed</u>	<u>Proposed</u>													
High Density																															
Swimming beaches		1	1	1	1	14	2													4										24	
Golf																												130		130	
Snowskiing				1					1					1																	
Playgrounds																				7	6	4	4	1	1	1	1			25	
Playfields																				5	9	4	4	2		2				26	
Neighborhood Parks																				2	3	7	7			4				23	
Community Parks						2														10	33					9				54	
Gen. Outdoor Rec.																															
Developed Camping	10	2	2	2	2	43	10				16	13	18	20	20					9										187	
Developed Picnic	5	2	2	2	2	33	5	5	5	5	7	1	5	15	20					3										117	
Boating & water sk.		Puget Sound, lakes, rivers,.....																													
Hiking		20	20	20	20	500					1000									691	150									2421	
Boat Launching						10					3	.5		2	4	58				1								2		80.5	
Hunting	10	50	50	50	50	50						10		10	15	14077														15350	
Fishing		Puget Sound, lakes, rivers, streams,.....																	10000												
Outstanding Areas																															
Scenic											12	3	2	10	15						7									49	
Natural																															
Scientific																															
Historic & Cultural Areas-																															
Primitive Areas		75	80	85	85						185,585										320									186,230	

Grand Total - All Types of Areas - 204,716.5 + Puget Sound and lakes, rivers, streams

(includes Nat. Forest)

*City of Anacortes proposes extension of Mt. Erie Park approximately 340 acres, Little Cranberry Park approximately 340 acres,
plus Industrial Park in urban renewal area.

TABLE 13

RECREATION NEEDS
COUNTY PROPOSALS (# ACRES AND 3 SITES)
TO SATISFY RECREATION NEEDS
(NEEDS = Demand - Supply)

Years	Swimming Beaches	Picnicking		Developed Camping Areas				Play- ground	Play- field	Neighbor- hood Park	Buffer Acres for Playground Playfield Neigh. Pk.	Total
	Acres	Picnic Areas Acres	# Units	Undevel. Buffer Acres	Devel. Areas	# Units	Undel. Areas Acres	Acres	Acres	Acres		Acres
65-67	45	26	292	9	97	679	33	48	47	50	45	400
67-68	6	5	60	2	10	70	3	2	2	2	2	34
68-69	6	5	60	2	10	70	3	2	2	2	2	34
69-70	6	5	60	2	10	70	3	2	2	2	2	34
70-71	5	2	24	2	10	70	3	1	1	1	1	26
71-72	5	2	24	2	10	70	3	2	2	2	2	30
72-73	5	2	24	2	11	77	3	2	2	2	2	31
73-74	6	3	36	2	11	77	4	2	2	2	2	34
74-75	7	3	36	2	12	84	4	2	2	2	2	36
75-76	9	2	24	2	15	105	5	2	2	2	2	41
76-77	9	3	36	2	15	105	5	2	2	2	2	42
77-78	9	3	36	2	16	112	5	2	2	2	2	43
78-79	9	3	36	2	17	119	6	2	2	2	2	45
79-80	9	3	36	2	17	119	6	2	2	2	2	45
80-81	10	3	36	3	15	105	5	2	2	2	2	44
81-82	11	4	48	2	15	105	5	2	2	2	2	45
82-83	12	4	48	4	15	105	5	2	2	2	2	47
83-84	12	4	48	4	15	105	5	2	2	2	2	47
84-85	13	4	48	4	15	105	5	3	3	3	3	52
Total	194	82	984	52	336	2562	111	84	83	86	81	1,109A.

CHAPTER X

PLAN IMPLEMENTATION

Zoning Regulations

It is the intent of this Plan that zoning regulations shall be developed which will put into effect and implement this land use plan. As is required by State Law, the new zoning regulations shall be closely in line with proposed land use, and other basic and general elements of the Comprehensive Plan.

Official Road Map & Ordinance

It is the intent of this Plan that an official Road Map and Text designating and reserving specific street and road rights-of-way, shall be prepared and adopted as a means of implementing this Plan.

Long Range Financial Plan

A long range financial plan, covering at least the period of 1965-1985, should be prepared and adopted as a method of implementing this Comprehensive Plan. This long range plan should detail the priority of construction and the means of financing each of the proposed facilities, in accordance with the County's fiscal capabilities, and should include six-year capital improve-

ment programs. Both of these financial plans should consider and should be based upon proposals in this Comprehensive Plan, and should be reviewed annually by the Planning Commission and the Board of County Commissioners.

Coordination

The various elements of this Comprehensive Plan should be closely coordinated with the long range plans of the State Highway Department, City and County School Districts, the County Park Board, the Public Utility District, local port districts, local governmental agencies, incorporated cities and towns and the Skagit Regional Planning Council. Coordination should be on a continuing basis in order to prevent the overlapping and the oversights that occur when close coordination between government agencies is lacking.

Adherence to Objectives, Standards and Policies

It is the intent of this Plan that the Board of County Commissioners and the County Planning Commission shall, as a policy,

adhere closely to the objectives, standards and plans in this Comprehensive Plan. If the Commission and the Board shall at any time favor granting an exception to a county zoning or subdivision regulation, -- and said exception will be in conflict with an objective, standard or plan in this Comprehensive Plan, -- then the Commission and the Board shall officially remove said objective, standard or plan from this Comprehensive Plan prior to granting the request.

Review of Plan

In order to carry out this Comprehensive Plan to its full completion,

this Plan should be officially reviewed, on a yearly basis by the Planning Commission and the Board of County Commissioners. The Plan should be reviewed and updated as needed to achieve the plans, standards and objectives established in this Comprehensive Plan. It is intended that this Plan be added to and detailed as conditions change, as more current data is obtained, and as more specific plans are needed.

APPENDIX

TABLE 14

SUBURBAN COMMERCIAL DISTRICT STANDARDS

<u>DISTRICT</u> <u>COMMUNITY</u>	<u>*LOCATION</u> <u>SPACING</u>	<u>DESIGN</u> <u>SIZE</u>	<u>TRAFFIC</u> <u>FRONTAGE ROAD</u>
	No closer than 8 miles to nearest Community Commercial District	8 to 20 acres	Frontage road or a deceleration (turn-off) lane required
	<u>LOCATION</u> On <u>only one side</u> of street or highway	<u>SHAPE</u> minimum length: 1000' minimum width: 600'	<u>CURBING</u> Centerline curbing to extend from inter- section for entire length of frontage along each public R/W. R/W curbing (same as above)
	Only at intersections	<u>LIGHTING</u> All lighting to face down or away from nearest property line	<u>Curb cuts</u> only where specified by city or County Engineer
	At <u>only one corner</u> of intersections	<u>SCREENING</u> solid fence or evergreen screening along all property lines abutting residential areas	
		<u>PARKING</u> Adequate	
<u>NEIGHBORHOOD</u>	<u>SPACING</u> No closer than 2 miles to nearest commercial establishments	<u>SIZE</u> 5 to 8 acres	
	<u>LOCATION</u> (Same as Community)	<u>SHAPE</u> minimum length: 600' minimum depth: 400'	
		<u>LIGHTING</u>)	Same as above
		<u>SCREENING</u>) same as Community	
		<u>PARKING</u>)	
<u>HIGHWAY-ORIENTED</u>	<u>SPACING</u> No closer than 1½ miles to nearest highway oriented commercial establishments on highway	<u>SIZE</u> 2 to 3 acres	
	<u>LOCATION</u> Interchanges	<u>SHAPE</u> minimum length: 300' maximum length: 500' minimum depth: 300' maximum depth: 400'	Same as above
		<u>LIGHTING</u>)	
		<u>SCREENING</u>) Same as Neighborhood	
		<u>PARKING</u>	
		-70-	

*Shopping centers designated on the Comprehensive Plan Map are shown to illustrate general intersection locations for the purpose of suggesting a typical pattern of orderly development. The exact location of intersections zoned for shopping centers will not necessarily correspond with the location of the symbols on the Plan and such symbols above, as designated, do not constitute a basis for commercial zoning.

TABLE 15

COMMERCIAL STANDARDS

These are the major factors in determining appropriate amount of space for commercial development:

A. Determining Factors

- purchasing power of the people who do (and will) patronize the business district.
- anticipated volume of sales
- density of population (existing and potential)
- income levels of the residents
- proximity and type of services available in adjoining districts

B. Other Factors to Consider

- The distribution of commercial areas in a city is as important as the amount of space reserved for the commercial areas.
- Less than 4% of retail business is attracted from those persons who pass by on through-traffic arterials.
- In commercial shopping districts the emphasis is on speculation, which leads to commercial over-zoning.
In planned shopping centers the emphasis is upon:
 - a. purchasing power within the service radius
 - b. controlled amount of space

C. Standards

Note: these standards are for floor areas; they do not include any areas for parking.

1. Frontage

- 50 feet per 100 persons

2. Area

- .8 acres floor space per 1000 persons (average)
- .86 acres floor space per 1000 persons in a community of 5000 persons.
- .33 acres in controlled shopping centers

3. Service Radius

- Community shopping center; 1 1/2 miles
- Neighborhood shopping center; 1/4 to 1/2 mile

TABLE 16

INDUSTRIAL SITE STANDARDS

The location of industrial districts is of great importance to the general welfare of a community. Without good industrial sites and without opportunities for industrial expansion a community's opportunities to provide a variety of employment for its labor force are limited.

Industrial sites must be carefully selected and reserved. They should not be merely relegated to land which is not suitable for any other purpose.

Major factors that are to be considered in the selection of industrial sites are the following:

- availability of market and labor force
- reasonably flat topography, or land easy to grade
- adequate sewage disposal facilities
- availability of public water in adequate quality and quantity
- availability of power in sufficient capacity
- single ownership of land, or few owners
- amount of raw acreage or undeveloped land available
- adequate street and highway access
- availability of railroad facilities (for some industries)
- availability of air transportation (for some industries)
- geographical relationship of sites to prevailing wind and to residential areas

TABLE 17

MAJOR ARTERIAL STREET

Function:	To expedite movement of through-traffic to major traffic generators* and from community to community. To collect and distribute traffic from freeways and expressways to less important arterial streets, or directly to traffic destinations.
Right-of-Way Width:	80' - 100'
Moving Lanes:	2 - 4
Daily Volume:	10,000 - 40,000
Access Conditions:	Intersections at grades with direct access to adjacent property.
Traffic Features:	Channelization used to control turning movements at intersections and at private driveways where critical. Traffic signals at major intersections. Pedestrian crosswalks at grade. Parking restricted.
Planning Features:	Desirably located on community and neighborhood boundaries. Major arterial streets should bypass major shopping centers, parks, and other homogeneous areas.

*Such as central business district, regional and major community shopping center, commercial service district, small college or university, military installations, etc.

Source: State of Washington Design Standards Committee - Revised by Skagit County

TABLE 18

SECONDARY ARTERIAL STREET

Function:	To collect and distribute traffic from higher type arterial highways to less important streets, or directly to traffic destinations; to serve secondary traffic generators* and traffic from neighborhood to neighborhood within a community.
Right-of-Way Width:	60' minimum - 80' desirable
Width Between Curbs:	44'
Moving Lanes:	2 (may be increased by limitations on curb parking at peak hours)
Daily Volume:	1,500 - 15,000
Access Conditions:	Intersections at grade with direct access to adjacent property.
Traffic Features:	Traffic signals at major intersections. Pedestrian crosswalks at grade. Parking restricted as necessary.
Planning Features:	Generally located on neighborhood boundaries. May be located within neighborhoods only when necessary to provide adequate service to traffic generators* located within neighborhoods. All traffic served should have either an origin or a destination within the subject community.

*Such as community business center, high school, junior high school, community center, athletic field, neighborhood shopping center, major park, golf course, important grouping of churches, multiple residence area, concentration of offices or clinics, major private recreation facility, large hospital, etc.

Source: State of Washington Design Standards Committee

TABLE 19

MAJOR COLLECTOR STREET

Function:	To collect and distribute traffic from higher type arterial streets to access streets, or directly to traffic destinations; to serve neighborhood traffic generators.*
Right-of-Way Width:	60' minimum
Width Between Curbs:	36' in low density residential area 40' in high density residential area or on transit route.
Moving Lanes:	2
Daily Volume:	500 - 2,500
Access Conditions:	Intersections at grade with direct access to adjacent property.
Traffic Features:	Traffic control measures as warranted, but <u>not</u> to encourage traffic trips through the neighborhood.
Planning Features	Should function as an arterial street only within <u>one</u> neighborhood, and should serve traffic only with an origin or destination within that neighborhood.

*Such as one store or a small group of stores, elementary school, church, club house, small hospital or clinic, small apartment area, etc.

Source: State of Washington Design Standards Committee - Revised by Skagit County

TABLE 20

COMMERCIAL ACCESS STREET

Function:	To provide access to commercial properties in business, commercial and industrial areas.
Right-of-Way Width:	60' - 100'
Width Between Curbs:	40' - 60'
Moving Lanes:	2 - 4
Daily Volume:	Variable
Access Conditions:	Intersections at grade with direct access to adjacent property.
Traffic Features:	Traffic control and parking measures as warranted.
Planning Features:	Should be designed to serve local commercial traffic only; through-traffic should be discouraged.

Source: State of Washington Design Standards Committee

TABLE 21.

MINOR ACCESS STREET

Function:	To provide access to residential property.
Right-of-Way Width:	50' minimum 60' desirable
Width Between Curbs:	32'
Moving Lanes:	2
Daily Volume	Variable
Access Conditions:	Intersections at grade with direct access to adjacent property.
Planning Features:	Should be designed and located to <u>prevent</u> continuous or unobstructed flow of traffic through a neighborhood.
Traffic Features:	Traffic control measures as warranted to provide adequate sight distance and safety.

Source: State of Washington Design Standards Committee

TABLE 22

SCHOOL SITE STANDARDS

Elementary School 6 years	Two parking spaces for each classroom and office.
Junior High School 3 years	Three parking spaces for each classroom and office.
Senior High School 3 years	Five parking spaces for each classroom and office.

<u>Site Size</u>	<u>Minimum Acres</u>	<u>Desirable Acres</u>	<u>Maximum Acres</u>
Elementary	5	5 + 1 for each 100	15
Junior	10	10 + 1 for each 100 students	25
Senior	10	20 + 1/2 for each 100 students	40

Travel Distance* (House to School)

	<u>Miles</u>	<u>Time</u>	<u>Maximum Walking Distance (in Miles)</u>
Elementary	1/2	(10 - 20 Min)	3/4
Junior	1	(15 - 25 Min)	1 1/2
Senior	1 1/2	(20 - 30 Min)	3

<u>Enrollment</u>	<u>Minimum No. of Pupils</u>	<u>Maximum No. of Pupils</u>
Elementary	300	800
Junior	450	800
Senior	500	1600

*These time periods ordinarily and more appropriately refer to schools located in the highly urbanized, more heavily populated metropolitan areas than is typical for Skagit County. These figures are not appropriate for sparsely populated areas which utilize school bus service.

TABLE 23A

STANDARDS FOR PUBLIC RECREATION

NEIGHBORHOOD

	DESIRABLE SIZE	AREA PER POPULATION	MAXIMUM RADIUS SERVED	AREA SERVED	AGE GROUP SERVED	DESIRABLE LOCATION	PRINCIPAL ACTIVITIES	TYPICAL FACILITIES
Play Lot	2,500 sq. ft. - 5,000 sq. ft.	40-100 sq. ft. per child.	1/8 mile.	Superblock	1-1/2 - 5 years.	High density residential areas, apartment areas.	Informal pre-school play.	
Playground	3-7 acres. 5 acres desirable minimum	1 acre per 800 persons.	1/4 to 1/2 mile.	Neighborhood	Most intensive use children 5-15, also family groups.	Part of or adjacent to elementary school, near center of neighborhood	Informal children's play and organized games, family recreation; some informal recreation for all ages.	Play apparatus, playing fields, surfaced areas, shelter and some shade.
Playground Park		1 acre for each 800 persons (increase where there are many older people)	Within convenient walking distance or 1/2 mile maximum.	Neighborhood	All age groups.	Near or adjacent to elementary school, center of neighborhood	Passive recreation sitting, walking, resting.	Benches, walks, game tables and shade.
Neighborhood Center			1/4 to 1/2 mile	Neighborhood.	All age groups, younger children during school hours.	Center of neighborhood, in conjunction with school, playground and park.	Leisure time activities of an educational cultural and recreational nature	Gym-All purpose room dining, auditorium.

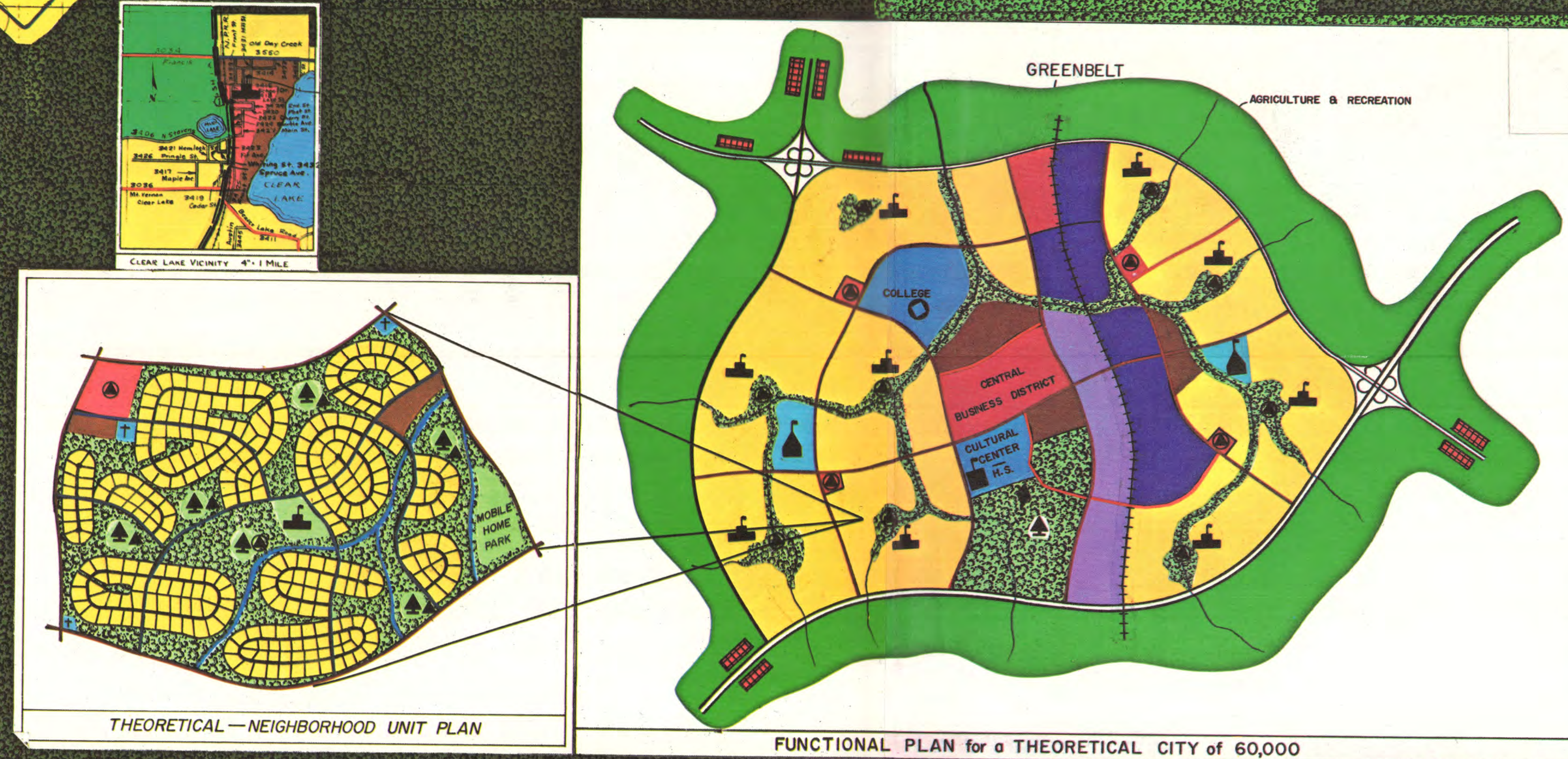
COMMUNITY

Playfield	12-25 Acres	1 acre per 800 potential population.	1 Mile	1 per community or each 20,000 population.	Older children and adults.			
Community Park	25 acres or more.	1 acre per 800 population.	1-2 miles within convenient distance of each community.	1 per each 20,000 population	All age group.	Within convenient distance of every home served.	Passive recreation contact with nature.	Natural features of community-wide interest. Play areas not conflicting with passive recreation.
Community Center			1 Mile.			In conjunction with junior high, playfield park, branch library. In some cases with senior high.		

Sources: (1) Standards developed by the Technical Committee of the Park and Recreation Coordinating Council published in "Public Recreation in the Central Puget Sound Region," Puget Sound Governmental Conference, January, 1960
 (2) National Recreation Association standards.
 (3) Comparative studies on recreation standards.

**COMPREHENSIVE PLAN
LAND USE, TRANSPORTATION, COMMUNITY FACILITIES
SKAGIT COUNTY**

CERTIFICATE OF ADOPTION
This is to certify that the Official Comprehensive Plan-map for Skagit County adopted by:
The Skagit County Planning Commission on 8/26/1968
The Board of County Commissioners on 9/10/1968
Donald E. Johnson Chairman
Edward K. Kneale Vice-Chairman
Harold L. Thompson Secretary
Carl H. H. Li Chairman
Bill Nelson Commissioner
Harold Miller Commissioner
supersedes and replaces the Official Interim Land Use Plan-map adopted April 5, 1966 for the County of Skagit, State of Washington. This map together with the Comprehensive Plan Text, the "Analysis of Population in Skagit County", the "Skagit County Economic Base"—October 1964, "Parks and Recreation"—a Plan for Skagit County, comprises the Comprehensive Plan for Skagit County.



LEGEND

RESIDENTIAL—SINGLE & TWO FAMILY	SCHOOLS	EXISTING	PROPOSED
RESIDENTIAL—MULTI-FAMILY	ELEMENTARY		
FORESTRY RECREATION	JUNIOR HIGH—MIDDLE SCHOOL		
AGRICULTURAL	SENIOR HIGH		
HIGHWAY SERVICE	PARKS (SKAGIT COUNTY)		
COMMERCIAL—LIMITED INDUSTRIAL	TRANSPORTATION—TRAFFIC CIRCULATION		
MEDIUM INDUSTRIAL	ROADS—CLASSIFICATION		
HEAVY INDUSTRIAL			
FLOODWAY	LIMITED ACCESS FREEWAY—STATE-100'-300'		
FLOODWAY FRINGE	CONTROLLED ACCESS HIGHWAY—ST-100'-300'		
AGRICULTURAL FLOODWAY	SECONDARY STATE HIGHWAY 100'-300'		
TIDELANDS	MAJOR ARTERIAL COUNTY 80'-100'		
NATIONAL FOREST	SECONDARY ARTERIAL COUNTY 60'-80'		
INDIAN LAND	MAJOR COLLECTOR COUNTY 60'		
OPEN SPACE—BUFFER	FRONTAGE ROAD		
SUB-NEIGHBORHOOD FACILITY	SCENIC ROUTE		
NEIGHBORHOOD FACILITY			
COMMUNITY FACILITY			
REGIONAL FACILITY			
INDUSTRIAL RESERVE—POTENTIAL			

SKAGIT COUNTY
MILES
0 1 2 3 4
PREPARED BY
SKAGIT COUNTY PLANNING DEPT.
JANUARY 1968

TABLE 23B

AREAS AND FACILITIES

METROPOLITAN

	DESIRABLE SIZE	AREA PER POPULATION	MAXIMUM RADIUS SERVED	AREA SERVED	AGE GROUP SERVED	DESIRABLE LOCATION	PRINCIPAL ACTIVITIES	TYPICAL FACILITIES
Athletic Field	40-50 Acres.	Area requirement included in that for playfields, exclusive of parking required.		1 for each major section or urban area.	Adults including sports "leagues". High school students.	Adjacent to or near major thorofares and bus lines for ease of access. So located as not to be a nuisance to residential property.	Team and spectator sports, space consuming hobbies, such as model motors, archery, rifle ranges, etc.	Playing fields, grandstands, field house, archery and rifle ranges, etc.
Metropolitan Park	100 acres or more.	1 acre per 400 population.	2-3 miles or 30 minutes travel time of each major section of the urban area.	1 for at least 40,000 population.	All ages.	So disposed that one adjoins each community.	To provide broad expanses of natural scenery and capable of accommodating large numbers of people.	A variety of facilities for facilities for all age groups, such as trails and picnic areas. May include special facilities such as zoos, museums.
Public Beaches and Waterfront Parks	Large enough to provide a good beach. Adequate space for parking, picnicking, service structures and perhaps camping. Waterfrontage of 200' is minimum for a beach.		Within convenient transportation range.	Major section of the metropolitan area.	All ages.		Swimming, boating, fishing, enjoyment and protection of the natural beauty of waterfront.	
Public or Community Swimming Pools	Standard pool 42 x 72 feet.		1 mile in urban areas.	A planning district with 25,000-40,000 for a standard pool at least 42 x 75 ft.	All ages.	May be attached to community or neighborhood centers or schools. Where much traffic is generated may be located in or on edge of a non-residential area.		
Golf Courses (available to the public on an equal basis)	120-160 acres for standard 18 hole course.	One 18 hole course for each 50,000 population.	Within convenient transportation range.	One for each major section of the metropolitan area.	Adults and some older teen-agers.	Golf. Other outdoor sports of a compatible nature should be combined with golf courses where possible.	Golf. Other outdoor sports of a compatible nature should be combined with golf courses where possible.	
Greenbelts	The location and distribution is dependent upon physical conditions and opportunities for acquisition. Generally not less than 300 feet in width. The total acreage in greenbelts, should be included in the land requirements for regional parks.					A <u>greenbelt</u> is an area in public ownership or control left primarily in its natural state for one or more of the following reasons: (1) to provide a permanent buffer between industry and residence; (2) to prevent development of areas unsuited for building; (3) to maintain belts of natural landscape and wildlife conditions within the metropolitan area; (4) to provide rights-of-way or sites for public facilities.		

REGIONAL

Regional Park	Adequate in size to provide a genuine outdoor atmosphere. Several hundred acres if possible. Desirably 500 acres.	Together with preserves within convenient access of the urban areas, 1 acre minimum per 100 persons in addition to parks within the urban area. For county system desirably more.		Each major population center.	All ages.	Accessible to major population centers. Desirably in locations having scenery of an inspirational quality.	Non-urban outdoor recreation; enjoyment of broad expanses of natural scenery.	Picnic and parking areas, restrooms. Possibly camping areas, bridle and nature trails.
Preserves	Relatively spacious. Similar to Regional Parks.					Are always located where "found" are not constructed.	Preservation of outstanding scenic and wilderness areas. Appropriate types of recreation.	Appropriate to the character of the area. Nature trails, wild-life preserves, camp sites.

CERTIFICATE OF ADOPTION

THE COMPREHENSIVE PLAN TEXT FOR SKAGIT COUNTY, ADOPTED BY:

THE SKAGIT COUNTY PLANNING COMMISSION

ON August 26, 1968

Arnell S. Johnson CHAIRMAN

Floyd Kamb VICE CHAIRMAN

Thomas G. Thompson Jr. SECRETARY
SKAGIT COUNTY PLANNING COMMISSION

THE BOARD OF COUNTY COMMISSIONERS

ON September 10, 1968

Jack Wylie CHAIRMAN

Mel Halgren COMMISSIONER

Howard Miller COMMISSIONER

BOARD OF COUNTY COMMISSIONERS

Supersedes and replaces the Skagit County Comprehensive Plan,
February 1965 by M. G. Poole & Associates, adopted April 5, 1966
for the County of Skagit, State of Washington.

This text together with the Comprehensive Plan-Map, the "Analysis
of Population in Skagit County", the "Skagit County Economic Base",
October, 1964, "Parks and Recreation", A Plan for Skagit County,
comprises the Comprehensive Plan for Skagit County.