

TULALIP COMPREHENSIVE PLAN

1994



6700 Totem Beach Road, Tulalip, WA 98271

ORDINANCE NO. 78

ADOPTING COMPREHENSIVE PLAN
OF THE
TULALIP TRIBES OF WASHINGTON

BE IT ENACTED by the Board of Directors of the Tulalip Tribes of Washington, a federally recognized Indian tribe organized pursuant to the Indian Reorganization Act of 1934, as amended, acting pursuant to the authority vested in it by the Constitution and Bylaws of the Tulalip Tribes of Washington, and in particular Article VI, Section 1(1) thereof, by Ordinance No. 56 of the Tulalip Tribes of Washington, and by its inherent sovereign authority, as follows:

The Board of Directors hereby finds and concludes:

1. That, in 1989, pursuant to Ordinance No. 56 of the Tulalip Tribes of Washington, the Tulalip Planning Commission undertook preparation of a Comprehensive Plan for the orderly physical development of the lands within the exterior boundaries of the Tulalip Indian Reservation, or any portion thereof.

2. That, pursuant to Ordinance No. 56, the Tulalip Planning Commission consists of seven members, 5 (five) tribal members and 2 (two) non-tribal members all residing, occupying or owning land on the Reservation.

3. That, in April of 1993, the fourth draft of the Comprehensive Plan was completed for public review, and distributed to Tribal government offices and other non-Tribal government agencies for comment.

4. That the Planning Commission held two informational meetings for tribal members on April 28 and May 1, 1993, and one public hearing on May 26, 1993, on the fourth draft of the Comprehensive Plan. Notice was given in the See-Yaht-Sub, the Marysville Globe, the Everett Herald, and on the Reservation's cable channel. The public comment period of 6 weeks closed June 15, 1993.

5. That, in May of 1993, an Environmental Assessment was prepared and issued under the National Environmental Policy Act. Following a public comment period, a Finding of No Significant Impact (FONSI) was issued in July of 1993. The preparation of an Environmental Impact Statement (EIS) is not required. No appeal was filed.

6. That, on August 25, 1993, the Tulalip Planning Commission approved the fifth draft of the Comprehensive Plan, for the orderly physical development of the lands within the exterior boundaries of the Tulalip Indian Reservation, or any portion thereof, and recommended such Comprehensive Plan to the Tulalip Board of Directors for approval and adoption. Such approval and recommendation by the Planning Commission occurred pursuant to, and in the manner required by, Ordinance No. 56 of the Tulalip Tribes of Washington.

7. That, prior to approval and recommendation of the fifth draft of the Comprehensive Plan, the Planning Commission considered in its deliberations the comments received during the public comment period.

8. That, at its regular meeting on November 6, 1993, the Tulalip Board of Directors considered the Comprehensive Plan approved and recommended by the Planning Commission, and also considered minor amendments thereto proposed by Tulalip Community Development Staff and Tulalip Business Committee, which incorporate density ranges for areas designated for residential development and plan text describing such plan densities, and corresponding changes to the plan text.

9. That, in the event the Board of Directors sees fit to make an amendment, alteration or change to the comprehensive plan approved by the Planning Commission, Section 14.0 of Ordinance No. 56 requires the Board to hold at least one public hearing on the proposed plan as amended, altered or changed, prior to approval by ordinance and certification of the proposed comprehensive plan or any alteration or amendment thereto.

10. That, at the November 6, 1993 meeting, the Board of Directors adopted a Resolution determining that such a public hearing be held on November 23, 1993, and requiring that notice of the time, place and purpose of such hearing be given and published by the Chief Executive Officer of the Tulalip Tribes, in the manner required by Ordinance No. 56.

11. That such notice was given and published in the manner required by Ordinance No. 56, and, at the November 23, 1993 hearing, a quorum of the Board of Directors was not available, and the hearing was adjourned.

12. Prior to such adjournment, the Board of Directors re-scheduled the hearing for December 14, 1993, and notice of the time, place and purpose thereof was given and published in the manner required by Ordinance No. 56. At the December 14, 1993 hearing, a quorum of the Board of Directors was not available, and the hearing was adjourned.

13. The Board of Directors subsequently re-scheduled the hearing for January 21, 1994.

14. That, pursuant to the requirements of Section 14.0 of Ordinance No. 56, the Tulalip Board of Directors held a hearing on January 21, 1994 to receive testimony from the public on the Comprehensive Plan approved and recommended by the Planning Commission, and upon the proposed amendments thereto. Notice of the time, place and purpose of such hearing was given and published in the manner and time required by Ordinance No. 56. Such publication of notice occurred in the See-Yaht-Sub tribal newspaper on December 31, 1994, and in the Marysville Globe on January 12, 1994.

15. At the public hearing, the amendments proposed to the Comprehensive Plan by Tulalip Community Development staff, and Tulalip Business Committee, were explained and available to the public, and considered by the Board of Directors. At the hearing, additional amendments to the Comprehensive Plan proposed by the Tulalip Natural Resources were also explained, made available to the public, and considered by the Board of Directors.

16. At the public hearing, testimony was taken, following which the record was closed. The Tulalip Board of Directors then deliberated concerning the Comprehensive Plan approved and recommended by the Planning Commission, and concerning the amendments proposed thereto. The Board made refinements to the proposed amendments, and determined that, as refined, it was appropriate to incorporate such amendments into the Comprehensive Plan approved and recommended by the Planning Commission.

17. The Comprehensive Plan approved and recommended by the Planning Commission, including the proposed amendments thereto as refined by the Board of Directors, is attached hereto, and is hereinafter referred to as the "1994 Tulalip Comprehensive Plan."

18. The 1994 Tulalip Comprehensive Plan is critically needed and appropriate to safeguard and protect the safety, morals, and general welfare of the Tulalip Indian Reservation, its environment and citizenry, and its essential Indian and Tribal character; to assure that land uses are limited to areas in which the natural environment is suitable to support a specific land use and/or development density; to assure that adequate infrastructure is provided to support development; to maintain a portfolio of land use diversity which will assure the greatest opportunity and quality of life for future generations of Tulalip residents; and to prevent the serious impacts which, absent exercise of tribal authority to effectuate the goals and policies reflected in this plan, would result from growth and

development and land use on the Tulalip Reservation, and which would imperil tribal political integrity, economic security, and the health and welfare of the Tribes and its members, as well as that of other Reservation residents.

19. The 1994 Tulalip Comprehensive Plan, is intended to replace the Tribe's 1972 Comprehensive Plan, and to serve as a comprehensive land use plan for all lands within the exterior boundaries of the Tulalip Indian Reservation, that will preserve the unique and essential Indian character of the reservation, protect, conserve and enhance the natural resources of the reservation, and preserve the reservation as the permanent homeland of the Tribe. Growth pressures and the changing economic status and needs of the Tribe and the reservation community, as well as environmental and natural resource preservation concerns, have created the need for, and led to the development of, the 1994 Tulalip Comprehensive Plan.

20. That the 1994 Tulalip Comprehensive Plan consists of maps and descriptive text covering goals, objectives, and standards and includes the following required elements:

A. A land use element which designates the proposed general distribution, general location, and extent of the uses of land for forestry, agriculture, housing, commerce, industry, recreation, and conservation lands on the 1994 Comprehensive Plan "Land Use Map". Standards of population density and building intensity are found in the text.

B. A circulation element consisting of the general location, alignment, and extent of major thoroughfares, and transportation routes.

C. A conservation element which is needed for the conservation, development, and utilization of natural resources. The Plan sets goals and objectives for natural resource management needed for earth, air, water, forestry, fisheries, plants, and wildlife habitat.

21. The sensitive lands, conservation areas, forest lands and agricultural lands designations in the 1994 Tulalip Comprehensive Plan are part of, and implement, both the land use and conservation elements.

A. Sensitive lands were designated in the 1994 Tulalip Comprehensive Plan to protect, conserve, and enhance areas on the Reservation which are environmentally and culturally significant. The Interim Sensitive Lands Development Policy incorporated into the Plan establishes guidelines for development on lands designated as "Sensitive Lands" on the "Sensitive Lands Map". Such designations are necessary and

appropriate to fulfill these purposes.

B. Conservation Areas were designated in the 1994 Tulalip Comprehensive Plan to preserve Reservation lands unique in their natural state which would be difficult or impossible to replace if damaged. Such designations are necessary and appropriate to fulfill these purposes.

C. Forest Lands were designated in the 1994 Tulalip Comprehensive Plan for the purposes of maintaining an economically viable and sustainable forestry program and protecting watershed basins, places and materials of cultural significance, and wildlife habitat. Such designations are necessary and appropriate to fulfill these purposes.

D. Agricultural Lands were designated in the 1994 Tulalip Comprehensive Plan to allow small scale farming in an area not suitable for residential development at low densities due to a high water table and low soil permeability. Such designations are necessary and appropriate to fulfill these purposes.

22. The 1994 Tulalip Comprehensive Plan includes the following optional elements: cultural resources, population, utilities, housing, community services, and an economic development program.

23. Goals and objectives for all elements are contained in Chapter 13 of the 1994 Tulalip Comprehensive Plan and provide guidance for all land use planning on the Tulalip Reservation.

24. The text of the 1994 Tulalip Comprehensive Plan contains numerous factual recitations and statements, each of which the Board of Directors hereby adopts by reference as findings of fact.

NOW, THEREFORE, BE IT ORDAINED AND RESOLVED:

1.0 The foregoing findings and conclusions are incorporated herein by reference.

2.0 The Comprehensive Plan approved and recommended by the Planning Commission, is hereby amended to include the aforementioned proposed amendments, as refined by the Board of Directors, which plan, as amended, is attached hereto and shall be known as the 1994 Tulalip Comprehensive Plan.

2.0 The 1994 Tulalip Comprehensive Plan, including such amendments thereto, including without limitation the text, maps, figures, and appendices thereof, and other documents

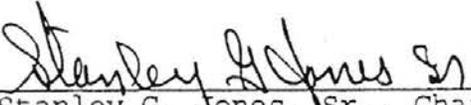
incorporated therein, is hereby incorporated by reference and adopted as the comprehensive land use plan for all lands within the exterior boundaries of the Tulalip Indian Reservation.

3.0 The signatures of the Chairman and Secretary of the Board shall be affixed on the cover sheet of the Plan and the sensitive lands and land use maps therein (Figures 6-1 and 8-1 respectively) to signify approval, adoption and certification thereof by the Board of Directors.

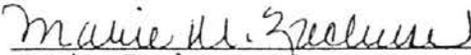
4.0 The 1994 Tulalip Comprehensive Plan adopted hereby shall replace and supersede the Tribes' 1972 Comprehensive Plan, and any amendments thereto.

5.0 In the event that any portion of this ordinance, or the comprehensive plan adopted hereby, is determined to be invalid or unlawful, the remainder of this ordinance and such plan shall continue in full force and effect.

The undersigned hereby certifies the foregoing Ordinance No. 77 was adopted by the Board of Directors of the Tulalip Tribes of Washington at a special meeting on the 21 day of January, 1994 with a quorum present, by a vote of 6 for and 0 against.


Stanley G. Jones, Sr., Chairman

ATTEST:


Marie Zackuse, Secretary

AMENDMENT TO THE
TULALIP COMPREHENSIVE PLAN

Area south of Marine Drive between 19th Ave. NE
and the intersection of Meridian Ave. and Marine Drive

(January 9, 1995)

CHAPTER 8: LAND USE

The majority of the Reservation land base is used for residential purposes. A total of 9,776 acres are designated Residential and additional residential use occurs in the Rural/Agriculture and Mixed Residential/Commercial areas. Housing density varies from one dwelling unit per 20 acres to multiple dwelling units on small fully serviced lots. The purpose of the Residential designation is to promote the in-filling of existing Residential areas and to meet the anticipated demand for housing. The greatest densities occur in areas where home sites are desirable, site conditions are suitable, utilities infrastructure is available, and anticipated facilities improvements can meet the additional demand for living space.

Where densities have been assigned to land use areas, the lower density assigned represents the plan's recommendation for zoning to initially implement the plan. The zones established by the initial action may be modified over the life of the plan at the discretion of the Tulalip Board of Directors (hereinafter "the Board") through a rezone process. The rezone process may be initiated by the Board to further Tribal economic, social, health and environmental goals, or may be initiated by individual property owners. The Board will review each rezone request on a case-by-case basis to determine its consistency with the goals, objectives, and policies of this plan.

Residential areas that border other land use categories should be zoned or otherwise buffered to provide an appropriate transition zone between the two different uses. For example, one dwelling unit (DU) per 10 acre Residential zoning might adjoin Forestry areas to provide a transition in land uses, where as permitted density could increase from 1 DU per 2.3 acres and up to multiple housing, as one moves further into the Residential area.

Residential use in areas designated as Sensitive Lands must be carefully managed to prevent environmental degradation or hazardous consequences such as landslides. For instance, a high demand and high price accompany waterfront and cliff top home sites, however, buildings, docks, bulkheads, and the clearing of cliff tops and faces for views disrupt the stability and natural processes associated with these fringe environments. Residential use and density must be acceptably integrated with the important natural features of the Reservation to preserve the desirability and function of these areas. Likewise, roads and utilities must be located and improved where environmentally, economically, and politically feasible. The following is a clockwise description of the Reservation Residential areas beginning in the southeast corner along Quilceda Road.

SUBURBAN

The Quilceda neighborhood is a predominantly Suburban low density area between Marine Drive and the proposed Business Park. Utilities are limited and nearly all homes are on

septic systems. Shallow wells are subject to potential contamination. Maximum allowable density should be limited to 2 dwelling units per acre until adequate utility services and road improvements can be provided. This area includes the subdivision known as Marysville West, which is fully serviced and non-subdividable, and the undeveloped area south of Marine Drive near the mouth of Quilceda Creek.

~~The Suburban area on the water side of Marine Drive from Quilceda Creek to Meridian Avenue could be developed up to 2 dwelling units per acre where good perc conditions for septic systems are found, provided that adequate water supply is available. However, for environmental protection the shoreline should be buffered a minimum of 100 feet inland from high water allowing only narrow access where necessary from Quilceda Creek to the eastern side of Priest Point. To implement the comprehensive plan, zoning in this area should be Suburban 2 dwelling units per acre. Once the area is served by water and sewer, 4 dwelling units per acre may be allowed by the Board on a case-by-case basis based on a review of environmental impacts.~~

Priest Point and Potlatch Beach are highly desirable Suburban living areas that may be developed to the extent that adequate services can be provided. Care must be taken when siting structures to maintain the view enjoyed by neighboring home sites. No further development should occur behind the spit at lower Priest Point for environmental reasons. To ensure that no further development occurs behind the spit at lower Priest Point, zoning in this area should reflect the plan's policy to limit new development in the area behind the spit. The top of the sea cliff in these areas should be maintained with as much natural vegetation intact as practical. New homes should be set back a minimum of 50 feet from the cliff top; 100 feet or more in areas of extreme slide hazard. Clear cutting the majority of the cliff top of any individual land parcel should not be permitted. The scenic cliff between Priest Point and Mission Beach should be preserved as much as possible. The Department of Community and Economic Development is currently preparing a plan to provide sewer service to the Priest Point and Potlatch Beach area. To implement the comprehensive plan, zoning in the Priest Point and Potlatch Beach areas should be Suburban 2 dwelling units per acre. Up to 4 dwelling units per acre may be allowed by the Board on a case-by-case basis based on a review of existing development patterns, the availability of water service, and a review of environmental impacts.

RESIDENTIAL ESTATE

~~To the west is the subdivision known as "Marysville West" which is fully serviced and non-subdividable. The adjacent Rainwater Road (19th Street) vicinity is not presently serviced with water and sewer and is characterized by poorly drained soils and must be maintained at low density under these conditions. To implement the comprehensive plan, this area should be zoned to allow 1 dwelling unit per 5 acres. Up to 2 dwelling units per acre may be allowed on a case-by-case basis by the Board based on a review of~~

environmental impacts. Along the base of the eastern most ridge of the Reservation is Maplewood Road. The steep slopes of the ridge and wet areas at the foot of the ridge limit the availability of suitable home sites in this area. To implement the comprehensive plan, the area should be zoned to allow 1 dwelling unit per 5 acres. Up to 2 dwelling units per acre may be allowed on a case-by-case basis by the Board based on a review of soil suitability, and environmental impacts.

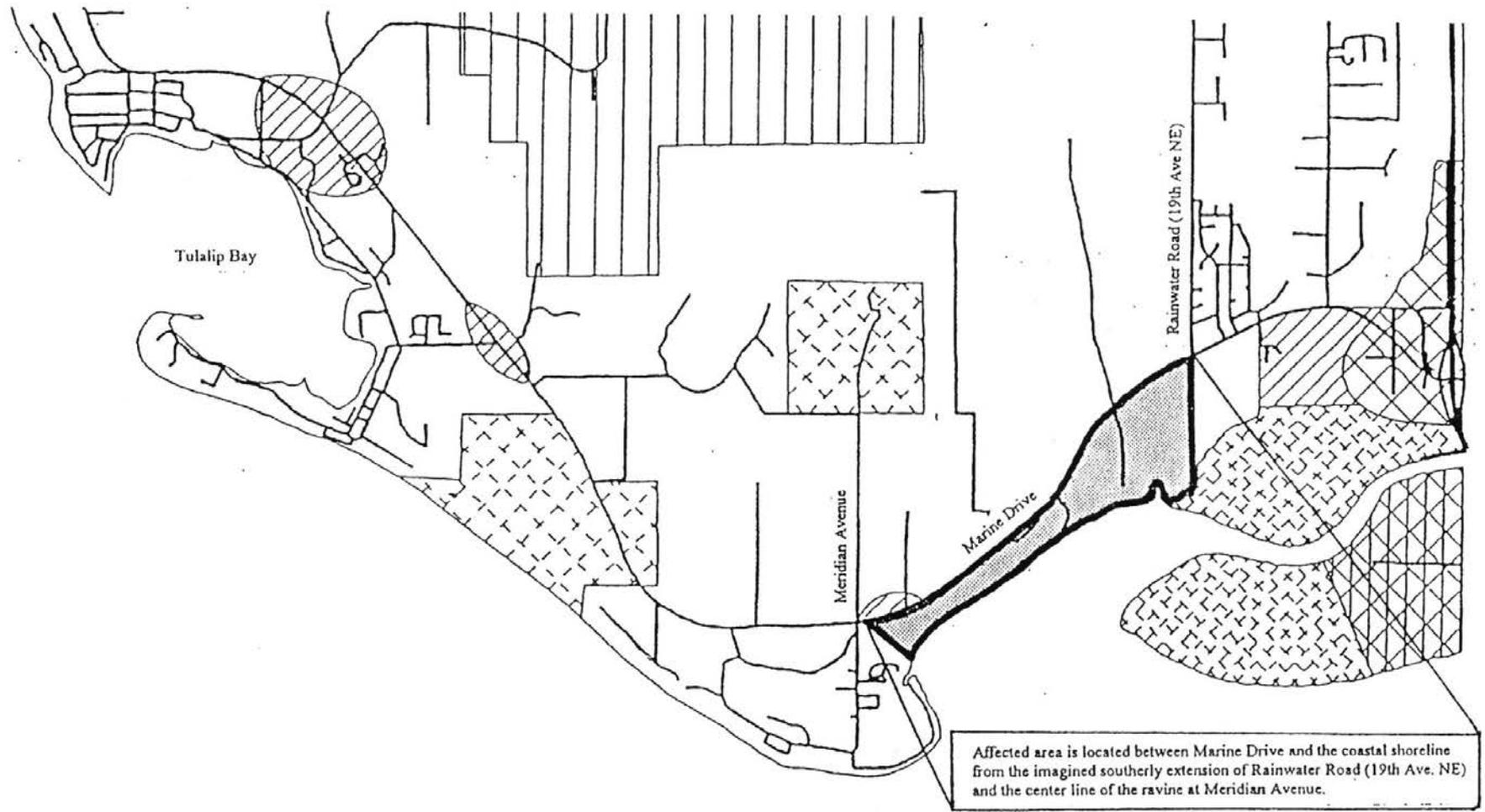
The Residential Estate areas north of Marine Drive between Maplewood Road and 62nd Street surrounding the Battle Creek Golf Course should be maintained in low density Residential use of approximately 1 dwelling unit per 5 acres. These are rural suburban neighborhoods with no improved services in most instances. Up to 2 dwelling unit per acre may be allowed by the Board in this area on a case-by-case basis once transportation and utility services are improved, and based on a review of environmental impacts.

The Suburban area on the water side of Marine Drive from 19th Ave NE and the mouth of Quilceda Creek to Meridian Avenue contains significant sensitive areas such as coastal wetlands and slopes, and an extensive estuarine wetland at the mouth of Quilceda Creek. The area contains large lot sizes and is largely rural in character. The area should be zoned to allow 1 dwelling unit per 5 acres. Up to 2 dwelling unit per acre may be allowed by the Board in this area on a case-by-case basis once transportation and utility services are improved, and based on a review of environmental impacts.

RURAL

Residential areas adjacent to forestry areas should remain low density to serve as a transition zone between resource lands and developed areas. Zoning in these areas should be Rural 1 dwelling unit per 10 acres. Up to one dwelling unit per 2.3 acres may be allowed by the Board of Directors based on available utilities, existing development, and environmentally sensitive areas.

The coastal Residential areas north of the Hermosa Point area to the northwest corner of the Reservation south of McKees' beach vary in housing density. The beach front communities of Tulalip Shores, Spee-Bi-Dah, Tulare and Sunny Shores are all tightly compacted along the water, while lots are much larger along the cliff tops. Development should decrease in density and increase in lot size, as one moves from the shoreline toward the interior of the Reservation. To implement the plan, zoning in this area should be Rural 1 dwelling unit per 10 acres. For areas in and adjacent to established, densely populated residential areas, up to 1 dwelling unit per acre may be allowed by the Board on a case-by-case basis based on a review of utilities, existing development patterns, and environmentally sensitive areas. For less developed areas, up to 1 dwelling unit per 2.3 acres may be allowed.



Affected area is located between Marine Drive and the coastal shoreline from the imagined southerly extension of Rainwater Road (19th Ave. NE) and the center line of the ravine at Meridian Avenue.

Comprehensive Plan Amendment:
SUBURBAN SR-5 to RESIDENTIAL ESTATE RE-5

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CHAPTER 1: INTRODUCTION

KLA-HOW-YA!

Welcome to Tulalip. The Tulalip Tribes have prepared this document as an information and planning resource to assist all citizens in understanding and implementing the land use goals for the Reservation. The Tulalip Reservation is unique in terms of its history, origin, natural resources, political status and distinct Indian culture. The main goal of the planning process is to effectively manage land use in order to preserve and enhance the Indian way of life on Tulalip Reservation in harmony with the community.

The Tulalip Tribes are the successors in interest to the Snohomish, Snoqualmie and Skykomish tribes and other tribes and bands signatory to the 1855 Treaty of Point Elliot. The Treaty provides certain legal rights and entitlements to its signatories. The Tulalip Tribes is organized under the Indian Reorganization Act of 1934, as amended ("IRA"), and is essentially a confederation of the Indian tribes and bands of which the Tulalip Tribes is a successor. Such tribes and bands took advantage of the benefits offered by the IRA and adopted the name Tulalip from the name of the prominent Bay on the Reservation. The Tulalip Tribes constitute a distinct Indian tribal community. This Tribal community is dedicated to preserving and enhancing its Indian identity and cultural heritage as part of contemporary life.

The modern Indian at Tulalip enjoys improved economic opportunities and added diversity in life-style. Although the Tulalip Tribes are heavily dependent on the fisheries and forest resources for employment, present day Tribal members engage in an increasing variety of educational and occupational disciplines. To further this trend Tribal government has evolved into a functional and diverse professional organization serving the needs of the Tribal membership and the Reservation community as a whole.

Managing Reservation growth is a challenging task. Preserving the essential Indian character is a top priority. Community needs for housing, education, jobs and economic opportunity must be satisfied while still preserving the Tulalip Tribal culture and Reservation natural resources. No development, change in land use, or potential environmental or social impact to the Reservation will be allowed without prior consultation, review and approval by the Tulalip Tribes. The Reservation is the permanent homeland for the Tulalip Tribes; therefore, the Tribes must play the lead role in determining what type of land use is best for the entire Tulalip Reservation community.

CHAPTER 2: EXECUTIVE SUMMARY

The Tulalip Tribes have prepared this Comprehensive Plan in response to the changing status and needs of the Tribes and the general Reservation Community. Perhaps the most significant change from the 1972 "Latourell" Comprehensive Plan is the revised population forecast for the Reservation. Current projections estimate that the present residential population of approximately 7103 people will continue to increase to over 8500 people by the year 2000.¹ This increased population will require significant increases in available housing, infrastructure, and community services. The fulfillment of these needs is reflected in the new plan.

The land use designations in this plan establish a substantial land base for residential development. Because the Tribes are so heavily dependent on fisheries and forestry resources, areas that are most appropriate for these uses have been so assigned. As a general rule, the majority of the Reservation interior is undeveloped and has been designated herein to remain so according to the Tribal policy of preserving the Reservation interior for natural resource management.

In areas of Residential land use, this plan emphasizes infilling of areas that already have the infrastructure to support higher density development or that can be expanded to serve additional homes economically.

Commercial use areas have been expanded somewhat within this plan with more development anticipated along the I-5 corridor. The location of Industrial use areas remains generally unchanged from the 1972 plan, with the exception of the removal of 915 acres on the west side of the Reservation from the Industrial category. That acreage has been redesignated for Residential and Forestry uses consistent with the present essential Indian/tribal character and theme of development in the vicinity.

The Rural/Agricultural land use in the northeast corner of the Reservation has been reduced somewhat from the 1972 plan to help meet the need for more commercial property.

For the first time, specific areas for Recreational use have been identified. These areas include a camping club and a golf course. Smaller recreational activities are still permitted in other land use designations as neighborhood parks and playfields.

The Tulalip Comprehensive Plan reduces and redistributes the population density of the 1972 plan, and more clearly reflects the need and desire to preserve the essential Indian character of the Reservation. It is important to remember while reading through the plan that the Tulalip Reservation was created to serve as a permanent homeland for the Tribal membership, therefore the Tribal needs are the highest priority, followed by the needs of the Reservation Community as a whole.

¹According to Snohomish County population projections.

CHAPTER 3: COMPREHENSIVE PLAN PROCESS

The Comprehensive Plan is a land use policy document, and functions like a design blueprint for present and future land use management actions. The plan includes a complete description of the existing physical setting, natural resources, land use, population, housing, transportation, utilities and community services. It embodies the overall growth management policy and sets forth specific goals and objectives for each section or element of land use. Further, the plan describes how these goals and objectives are to be achieved. The plan affects all citizens, political bodies, agencies, and departments that may be involved in the management of land use on the Tulalip Reservation. The Comprehensive Plan is designed to guide land use actions and serve as a working document.

1. PRIOR PLANNING

The Tulalip Tribes and Snohomish County jointly researched and reviewed the 1972 Comprehensive Plan also known as the "Latourell Plan" (named after the principal consultant). The plan was adopted by the Tulalip Tribes and, with some land use designation differences, by Snohomish County in 1973. However, the growth and socio-economic changes of the 1980's spotlighted its shortcomings. A significant revision was required, and a new comprehensive plan approach was necessary to meet the fundamental needs of the growing Tulalip Tribal membership and general community. These changes included water and forest resources, and housing and business development, among others.

In response to growth, additional water resources had to be developed on the Reservation. As of 1990, the Tribal wellfield was at peak production and had to be expanded to meet projected demands. The Tribal salmon hatchery had maximized fish production and could only expand with the development of additional water resources. Any reduction in water quantity or quality in the Tulalip Creek basin would diminish both domestic supply and fish production. Further, many Tribal members rely on fishing, and hence water resources, for subsistence and income.

Growth forces have depleted forest resources. Large tracts of forest land have been taken out of production. Although most Tribally owned forest lands have been harvested, they have been replanted. However, non-Tribally owned forest lands are being converted to other uses. The impacts are particularly felt by Tribal loggers and firewood cutters who rely on the forest products for income. In addition, the loss of forest lands affects wildlife habitat and spiritual areas which are culturally important.

Real estate and housing costs have been driven up by off-Reservation growth pressures making it very difficult for Tribal members to afford adequate housing on Reservation. This has prevented many Tribal members from residing on-Reservation. The high priced estate housing along cliffs, waterfront and view areas has not benefitted Tribal members.

The Tribes need a strong, stable economic base to develop educational incentives, services, employment and business opportunities for Tribal members and the Reservation. The commercial and industrial potential of the Interstate 5 corridor provides the economic advantage to develop Tribal income, individual businesses, jobs and community services.

The 1972 Comprehensive Plan did not provide viable solutions for these growth related problems and a new plan was called for to meet the needs of the 1990's.

B. PLAN DEVELOPMENT

In 1989 the Tulalip Tribes initiated development of this Comprehensive Plan. The formation of the Planning Commission (which is comprised of both Indians and non-Indians), the planning process, and key elements included in the plan are prescribed by Tribal Ordinances 56 and 56A. The Tulalip Planning Commission and the Tribal planning staff carried out the process of development of the final plan. The United States Department of the Interior's Bureau of Indian Affairs provided assistance in the planning endeavor and has approved the Tulalip Tribes Planning Enabling Act Ordinance (Ord. 56 and 56A).

C. DEVELOPMENT PROCESS

The Planning Commission and the Tulalip Tribes planning staff prepared the initial draft of the Comprehensive Plan over a three year period. Following provisional review by the Tulalip Planning Commission the Comprehensive Plan was submitted for legal review to insure compliance with Tribal Ordinances 56 and 56A. A second draft was prepared incorporating changes suggested by the Planning Commission and by staff. The second draft was distributed to the Planning Commission for review and approval.

The Tulalip Planning Commission reviewed and approved the 3rd draft for environmental review under the National Environmental Policy Act. A draft Environmental Assessment was published and following a 4 week comment period, the finding of no significant impact was jointly issued (FONSI) by the Tulalip Tribes and the Bureau of Indian Affairs as lead agencies. The FONSI establishes that the preparation of an Environmental Impact Statement (EIS) is not required.

An updated fourth draft was issued for public review. The Planning Commission held tribal member workshops and a public hearing with meeting notices filed in the Everett Herald, Marysville Globe, and the See-Yaht-Sub (Tulalip Tribes newspaper). The Planning Commission has reviewed all comments and prepared a final draft for submittal to the Tulalip Tribes Board of Directors, who will also consider the public comments prior to making any decision to approve or modify the Comprehensive Plan. Once the Plan is accepted, it will be forwarded for final approval by the Secretary of the Interior in accordance with Tribal Ordinances 56 and 56A and applicable Federal law.

The Tulalip Tribes has jurisdiction in regulating land use on all lands on the Reservation. Tulalip Tribal Planners have met with Snohomish County Planners to coordinate comprehensive planning efforts.

The Tulalip Planning Commission, through the Comprehensive Plan, has provided a land use policy which will meet the needs of both Indian and non-Indian residents. The plan protects critical elements such as natural resources and Indian cultural heritage, while providing appropriate areas to meet future needs such as housing and economic opportunities for all Tulalip residents. Although not technically applicable, this Comprehensive Plan presents a growth proposal that is consistent with the intent of the Washington State Act SHB 2929, and is intended to cooperate with the Washington State Urban Growth policies.

D. REVISIONS TO THE COMPREHENSIVE PLAN

This plan may be revised from time to time to accommodate the changing needs and desires of the community it is designed to serve. All proposed land use map amendments or policy revisions will be reviewed by the Planning Commission to determine their comprehensive impacts and to determine which changes to the map/plan are appropriate. Before any amendments are made to the Plan the Planning Commission will hold a public hearing after notice of time, place, and purpose.

CHAPTER 4: RESERVATION PHYSICAL DESCRIPTION

The physical features of the Reservation, to a large extent, dictate the acceptable growth and development patterns for the area. These parameters include local geography, climate, geology, slopes, soil types and natural resources. For example, Reservation physical features such as steep hill slopes, wetlands or critical wildlife habitat may restrict development due to potential environmental damage. Certain soil types are preferred or even required for farming, forestry and residential development that utilizes septic systems. In some situations the natural features may impose cost or engineering constraints that preclude development. In other cases, physical settings are so unique or ecologically valuable that they warrant preservation in their natural state. Finally, uses such as commercial and industrial developments may require sites with specific geographic location.

A. GEOGRAPHY

The Tulalip Reservation is located near the geographic center of the eastern shore of Puget Sound in Snohomish County, Washington (Figures 4-1 and 4-2). The Reservation occupies the south half of what is commonly called the Tulalip Plateau, an elongated mound surrounded by Port Susan and the Marysville Trough. The Reservation is bordered immediately to the north along Fire Trail Road (140th Street N.W.) by the Seven Lakes district and the Stanwood community; to the east along Interstate 5 by the City of Marysville; to the south by the City of Everett at the mouth of the Snohomish River along Steamboat Slough; and to the southwest and west by Possession Sound and Port Susan (Figure 4-3). Tulalip is linked by freeway, water, rail and air transportation to several large population centers including Vancouver, B.C., Seattle and Tacoma as well as the intervening communities. Cities on the Olympic Peninsula to the west and beyond the Cascade Mountains to the east are within a few hours travel time. The Tulalip Reservation, which includes the Tulalip Bay, and contains over 22,000 acres of land; measuring some 6 and 1/4 miles on its longest north/south axis and approximately 8 and 1/4 miles on its longest east/west axis. The irregular southern and western perimeter forms over 16 miles of river and saltwater shoreline.

B. CLIMATE

The Reservation climate is typical of Puget Sound lowland marine areas. Average annual precipitation (measured 9 miles to the southeast at Everett) is 34.5 inches based on the 1941-1977 water years. The greatest precipitation occurs from November through February; the least in July and August. Winters are typically wet and stormy with only occasional snow of short duration. Springs are generally mild and damp. Summers are usually warm and dry. Falls are significantly cooler with increasing frequency of rain. The mean July temperature is 63°F and the mean January temperature is 38°F. Summer high temperatures will reach into the 90's, but only for short periods. Winter lows have occasionally plunged to 0° F in recent history.

Winds vary in direction, but are predominately southerly. Winter winds average 25 miles per hour with gusts up to 50 mph not uncommon. Air inversions and periods of stagnation may occur for short periods in the winter months, often resulting in regional burn bans and other pollution control measures. Fog may occur in low lying areas due to the close proximity to Puget Sound waters. Weather systems are seldom entrenched for any length of time.

C. GEOLOGY

The Reservation's geology is the result of glacial and erosional processes. The Tulalip Plateau is primarily made up of glacial till consisting of clay to boulder size materials deposited near the end of the Vashon Glaciation approximately 12,000 years ago. Unconsolidated materials underlie the Reservation to a depth of at least 1000 feet below sea level. Materials deposited during the advance of the Vashon glacier were overridden and densely compacted near the surface by up to 3000 vertical feet of ice. The compacted material has formed a dense, chemically cemented mantle of varying thickness locally known as "hardpan." This nearly impermeable layer covers most of the western two thirds of the Reservation with occasional breaks and discontinuities, mostly along stream corridors and depressional areas. Some materials deposited during the glacial retreat have been sorted by size through meltwater transport. However, it is still very difficult to predict the actual extent and dimensions of specific layers or strata without numerous test holes or well logs. The major landforms consist of three rolling ridges from 400 to nearly 600 feet high running generally parallel in a north/northwest to south/southeast direction. Variation and sorting of depositional materials are seen along the exposed sea cliffs, especially in the northwestern portion of the Reservation.

Between the three ridges, small valley floors composed of poorly drained organic soils follow the drainage systems of Tulalip and Battle (Mission) creeks south to Tulalip Bay. The western coast is predominantly rough, broken land with steep slopes and cliffs that sometimes drop as much as 300 feet to the water. The lowlands of Tulalip and Battle creeks form the immediate background for Tulalip Bay, an oval body of water partially closed by a hook of land called Mission Beach. The Bay is shallow throughout, with little water remaining at low tide. The Marysville Trough which includes the eastern quarter of the Reservation is a relatively flat belt of land that extends Northward from Marysville to the Stillaguamish River (located about five miles north of the Reservation). The Trough reaches a maximum height of approximately 100 feet above sea level in the northeast corner of the Reservation. The Trough contains the valley floor for Sturgeon and Quilceda creeks. It terminates to the south at the western tip of Ebey Island, which is bound by Ebey and Steamboat sloughs. These waters form part of the tidal estuary of the Snohomish River, emptying into Port Gardner bay.

D. HILL SLOPES

The western two thirds of the Reservation is comprised of three generally parallel, rolling ridges, terminating abruptly as sea cliffs on the western shore. Glacial and erosional processes have produced numerous topographical features with varying degrees of hill slope. Only the



THE TULALIP TRIBES

Snohomish County, Washington State 1990

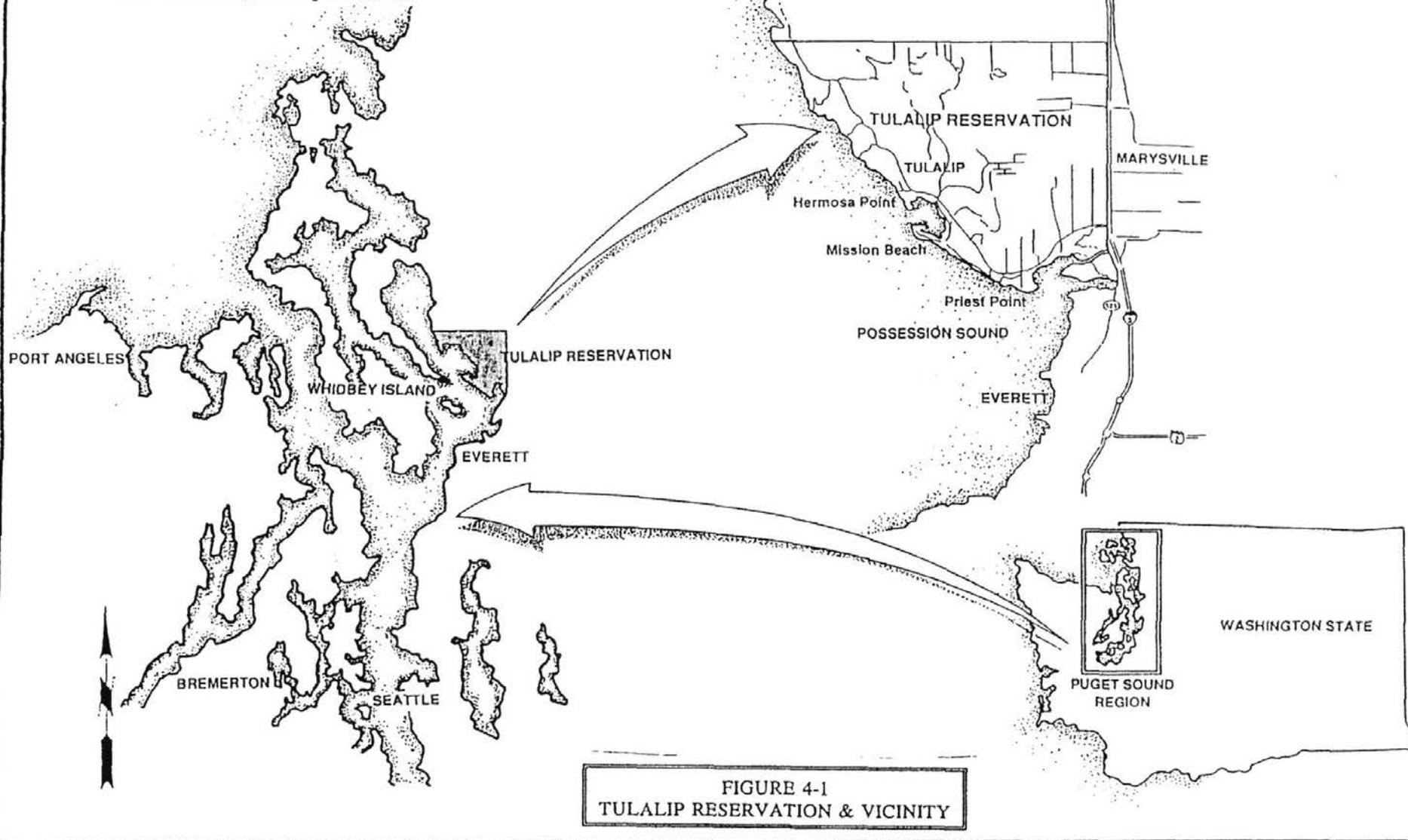
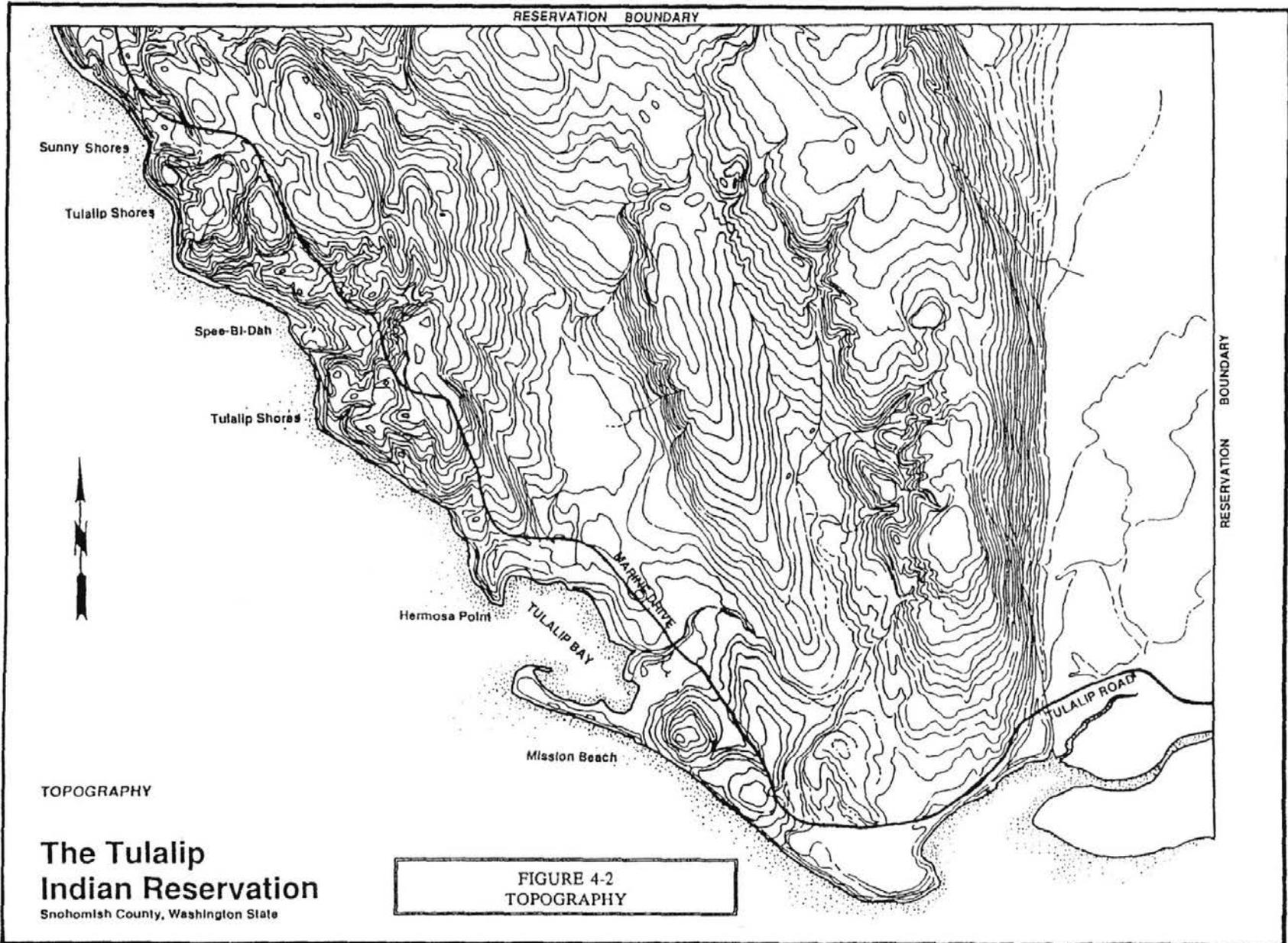
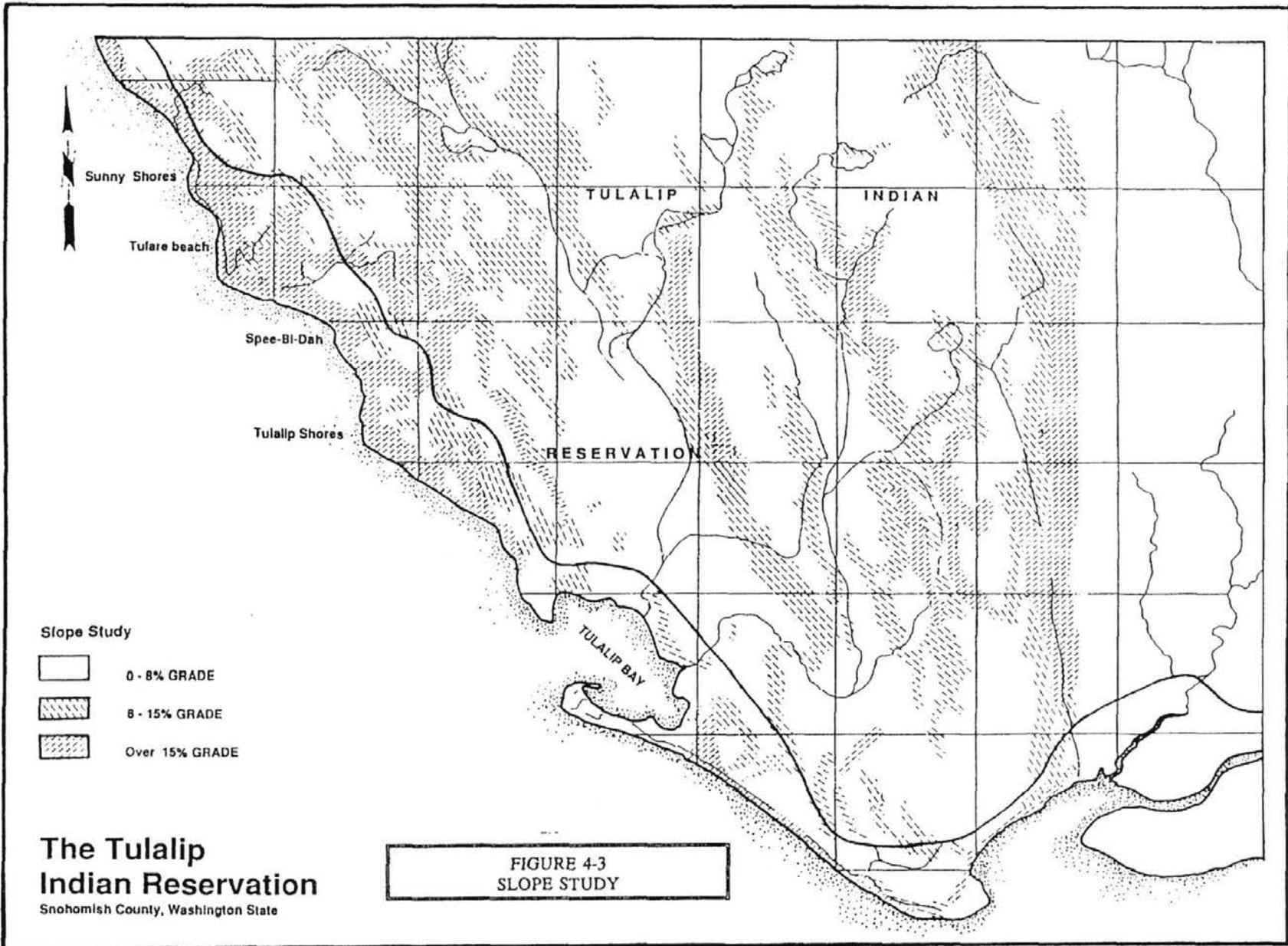


FIGURE 4-1
TULALIP RESERVATION & VICINITY





**The Tulalip
Indian Reservation**
Snohomish County, Washington State

**FIGURE 4-3
SLOPE STUDY**

eastern portion of Reservation along Interstate 5 in the Marysville Trough can be considered basically flat and unaffected by hill slope processes.

The extent of hill slopes is a prime consideration in determining areas suitable for future development. In addition to the topographic map (Figure 4-2), the slope map (Figure 4-3) further illustrates the extent and degree of slopes on-Reservation. On slopes up to 8 percent grade no particular difficulties are encountered in most types of development, although commercial and industrial complexes generally are situated on slopes of less than 3 percent. Where the grade exceeds 8 per cent buildings in residential development must be carefully sited and in some instances designed specifically for hillside construction. Construction of residences on grades in excess of 15 per cent requires extensive compensating measures for both the building itself and the site in general.

The percentage of slope influences land use for several reasons. The combination of slope, soil type and geological characteristics determine the susceptibility to both land sliding and erosion. For example, silty clays can become quite fluid when saturated with rainfall. As a consequence, clay layers exposed on hillsides are quite unstable. A hill slope related construction accident in 1989 on the western cliffs of Hermosa Point claimed the life of one person when construction workers excavating in the toe of a saturated clay slope caused a landslide. Similarly, sandy loam is highly susceptible to erosion and instability when water-retaining ground cover is removed as in the cutting of roadbeds or construction sites on hillsides. Slope also affects the suitability of land for septic tank systems. Generally speaking, the steeper the slope, the larger the drainfield required to avoid effluent break outs.

Significant amounts of land on the Reservation are unsuitable or difficult to develop because of the steepness of the slope. Of the 22,000 acres on-Reservation, over 10% is land with a gradient in excess of 15%. Twenty-eight percent (6,200 acres) is land with slope between 8 and 15% in grade. Altogether 8,700 acres or almost 30% of the Reservation has some restrictions to building by reason of steep slope and corollary factors.

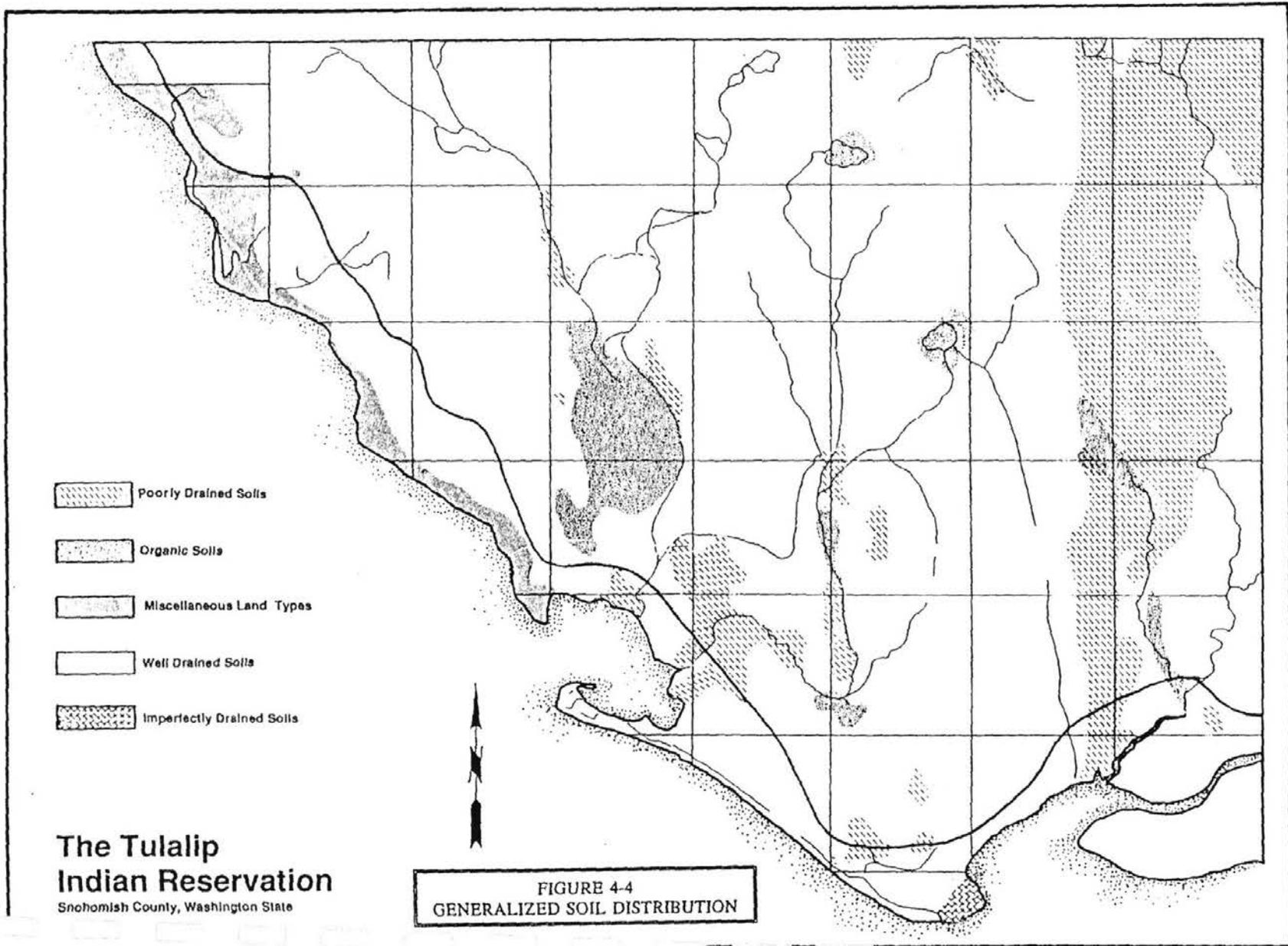
E. SOILS

Reservation soil types are to a large extent determined by climate and underlying geology (see Figure 4-4). In the western two thirds of the Reservation most of the material beneath the Tulalip Plateau is glacial till. The soils above this material are generally classified as the Alderwood-Everett soil series. They are generally well drained sandy/gravelly loam. At a depth of 20 to 40 inches below the soil surface there is often a grey, concrete-like layer of compressed, cemented sediment (hardpan) that restricts the downward flow of water. This impermeable layer can result in surface ponding of water in depressional areas, or rapid lateral subsurface flow where the slope is sufficient to carry the water away. By contrast, the eastern one third of the Reservation is in the Marysville Trough which is an ancient river valley that was gradually filled with river sediments. Soils in the Marysville Trough are predominantly well drained sand and silt. However, towards the south, in the Quilceda Creek drainage basin, the

soils are rich in organic matter and poorly drained. Throughout the Reservation there are also numerous wetlands and rich organic pockets of seasonally saturated soils. These areas may be adjacent to shorelines, stream corridors or occur as isolated wetlands formed by perched water tables or poor drainage.

F. NATURAL RESOURCES

Natural resources of the Reservation include the elements of clean air and atmosphere, water, wetlands, shorelines, fisheries, forests, wildlife, vegetation, earth materials, scenic views and historical and archeological sites of artifacts. Tulalip is very rich in these resources and committed to their preservation and enhancement. A complete description of these elements and their importance is contained in Chapter V, Natural Resources.



CHAPTER 5: NATURAL RESOURCES

The Tulalip Reservation is rich in natural resources. These resources are an integral part of the quality of life enjoyed by all Reservation residents. The Tribal membership is directly dependent on these resources for their cultural, economic and ultimate survival as a distinct Indian community. These resources must be managed, maintained and enhanced where possible, to insure continuous future benefits and the preservation of the essential Indian character of the Reservation. This chapter describes the Reservation natural resources and their importance to the Tribes and resident community.

A. AIR

The ultimate resource necessary to support all life is the air and atmosphere. There is no practical means of isolating the air of one community from that of another, therefore all communities are responsible for the protection and co-management of this resource.

Air masses over Tulalip are predominantly marine influenced, and most of the weather patterns for the region originate in the Pacific Ocean. The marine air patterns moderate temperate extremes and are usually rich in moisture. A key benefit of marine influenced air masses is that they originate where there are essentially no air pollution sources, consequently, Tulalip air is usually quite clean.

Local threats to air quality include the increased automobile exhaust/emissions, commercial and residential open burning and a few key point source facilities including pulp mills, process plants and sewage treatment facilities.

In order to reduce the amount of motor vehicle exhaust emissions in and around the reservation, the Washington State Department of Licensing requires vehicle emission testing prior to renewing vehicle registration every other year. Adjoining communities have recently adopted or intend to adopt no-burn zones for areas that are densely populated. These zoning measures restrict open burning of land clearing debris, garbage/trash and general yard wastes. Strict air quality controls have already been placed on most industries, including smaller commercial facilities, as a result of the Federal Clean Air Act.

To date, Tulalip has participated in air quality control activities including the siting of a commercial wood waste recycling facility, which grinds instead of burning wood waste. Other measures have included educational articles in the Tribal newspaper explaining proper operation of woodstoves and appropriate burning practices. Tulalip has adopted Ordinance 77 for the purpose of regulating outdoor burning, including the right to issue burn permits, within the reservation boundaries. Tulalip is also working with the U.S. Environmental Protection Agency to develop their own air pollution control regulations.

B. WATER RESOURCES

Like the air itself, water is a fundamental resource of extreme importance to the Tulalip Tribes both on- and off-Reservation. The Tulalips, especially as fishing people, are directly dependent on water and fisheries resources for subsistence, income, and ceremonial and cultural purposes. Because the water cycle functions without regard for political boundaries, cooperative co-management of this resource is necessary for its successful preservation. The Tulalip Tribes are the holders of various water rights which directly affect the management of water resources on- and off-Reservation.

1. LAKES

The Reservation contains several lakes of varying size. The six principal named lakes are Ross, Mary Shelton, Fryberg, John Sam, Weallup and Lake Agnes. The three largest, Weallup, Ross and John Sam, have areas of 23, 21 and 15 acres, respectively. The smallest include a few unnamed ponds under one acre. Only Ross Lake can be considered undeveloped, although it is heavily used for recreation. Ross Lake is over 70 feet deep and behaves quite differently physically from the other lakes which are less than 20 feet deep. John Sam Lake is surrounded by homes, while Lake Agnes and Mary Shelton have only a few scattered home sites. Fryberg Lake is very shallow and almost completely covered with aquatic plants. Weallup Lake is directly upstream of the Tribal fish hatchery and is a critical link in the hatchery water supply system. Although the lake is surrounded by a camping club community, a 100-foot wide native growth buffer has been maintained around the entire shore and no boat motors are allowed.

The Reservation's lakes have been identified as important groundwater recharge areas (Drost, 1983; Water Resources of the Tulalip Indian Reservation, U.S.G.S. Open File Report 82-648). Fish populations have been observed in all the open water lakes and Ross Lake has been used in the past for Tribal Hatchery fish rearing operations. Based on comparative sampling, nearly all of the Reservation's lakes have been adversely affected by property development in their vicinity. Effects such as increased nutrient loading, steadily declining summer water levels, increased seasonal water temperatures, reduced visibility and increased growth of nuisance aquatic plants have been observed. Resource protection ordinances and lake restoration efforts will be necessary if these bodies of water are to be maintained in a desirable state.

2. RIVERS

- a. Snohomish River: The mouth of the Snohomish River forms the southern boundary of the Reservation along Steamboat Slough. The Snohomish is one of the largest rivers emptying into Puget Sound (average annual discharge of 3,945 cubic feet per second) and is a major producer of several species of salmon, including steelhead. The Tribal Fisheries Department has been actively involved in the management and monitoring of

fish runs, fish production, enhancement programs and water quality monitoring on this important system. The Snohomish River transports massive amounts of sediment, much of which is deposited at the mouth and into Possession Sound. Storm events, high tides and high river stage result in occasional flooding of the flats and wetlands near the mouth, as well as the beach front residential community of Priest Point Drive. Large woody debris such as whole logs and root balls may flow down river during these times brushing the Tulalip shoreline, and threaten damage to docks and bulkheads. Docks near the tip of Priest Point are not practical due to debris and sediment transport. However, the industrially designated land use of the area known as Big Flats has navigable water access. The Tribes are working to preserve the mouth of the Snohomish River as prime fisheries and wildlife habitat. Tribal hunters still enjoy the benefits of abundant waterfowl in this area during the seasonal migration southward.

b. Stillaguamish River: The Stillaguamish River, off-Reservation and six miles to the north, is also a very important water and fisheries resource. The Stillaguamish is a smaller system than the Snohomish (average annual discharge at Arlington of 1,900 cubic feet per second), but is viewed as near equal in importance by fisheries resource managers. Again the Tribes play an active role in the stewardship of this system as it is an integral part of the Tulalip culture.

Both the Snohomish and Stillaguamish River systems fisheries have been impaired due to declining water quality and loss of habitat resulting from development growth, and agricultural and forestry practices. Fisheries managers work cooperatively to identify and reduce these impacts while protecting the Tribal treaty fishing right.

3. STREAMS

The named streams contained within the Reservation are Tulalip Creek, Quilceda Creek, Battle (Mission) Creek and Sturgeon Creek. Quilceda Creek is the largest stream and has three main branches, two of which are entirely off-Reservation. Quilceda enters the Reservation in the northeast corner as the West Fork, flows back off-Reservation to the east, joins with the middle and east fork and re-enters the Reservation near the south east corner as the main stream which terminates at the mouth of the Snohomish River on Ebey Slough.

a. Tulalip Creek: Tulalip Creek is presently one of the most important water resources on the Reservation. Its watershed is mostly forested and lies in the heart of the Reservation between the western and central ridges. The Tulalip Creek stream system provides numerous benefits including fisheries and wildlife habitat, water for the Tribal fish hatchery, groundwater recharge for the aquifers underlying the Tribal well field, spiritual bathing sites for traditional Indian religious practices, and irrigation for the wetland regimes along its corridor. Any further development in this watershed will negatively impact Tulalip Creek, the Tribal fish hatchery, and Tribal well field.

b. Quilceda Creek: Quilceda Creek is navigable by small boat from its mouth, which is tidally influenced, to a point just off the Reservation to the northeast of the Interstate 5 bridge crossing. A number of early Indian encampments and homes are known to have existed along this creek, therefore, an archaeological survey should be conducted prior to any disturbance near its banks and along the lower main stream. Adverse impacts include storm drainage from the City of Marysville which flows into the Quilceda as well as septic tank effluent from any failing systems along its banks. Much of the creek is accessible and therefore subject to disturbances from people, dogs and other urban hazards such as waste dumping. Quilceda Creek does support diminishing runs of native fish, most notably cutthroat trout and silver salmon, but limited resources have precluded intensive management of this system. A Tribal elder (Alfred Sam) once described the existence of native runs of enormous Tyee Salmon, now almost certainly extinct. An occasional sturgeon has also turned up. However, Quilceda Creek will have to be improved in term of water quality and instream habitat in order to provide additional fisheries resources. For the time being, fish pass through the lower reaches briefly on their way to the head waters to spawn.

c. Battle Creek: Battle Creek is formed by several forks. Its watershed lies between the central and eastern ridges. The headwaters originate in part from John Sam and Ross Lakes and drain the basin formed between the two ridges. The integrity of the central Battle Creek basin has been partially impaired by the platting of five-acre tracts prior to any substantive land use regulations. Battle Creek has been adversely impacted by adjoining livestocking areas and insufficient buffers for instream habitat preservation. Battle Creek Pond, an impoundment near the Tribal Center, is also used for fish rearing purposes. Fish kills have occurred on Battle Creek in the past due to disturbances in the watershed. However, the creek, which contains numerous associated wetlands, still provides excellent fish and wildlife habitat.

d. Sturgeon Creek: Sturgeon Creek lies in the Marysville Trough and flows into Quilceda Creek near Ebey Slough. Sturgeon Creek is a very small system probably not capable of providing quality fisheries habitat, except near the mouth, without extensive restoration. Nevertheless, further degradation of this resource must be prevented to preserve an excellent wildlife habitat. Recent subdivision stipulations on property along the creek have maintained buffers and low densities in new developments. The main threat to the Sturgeon Creek environment comes from the abutting yards of adjacent property owners in older developments. Small scale cumulative filling of associated wetlands and the dumping of debris over the banks of the Creek have diminished the overall habitat value of this system.

e. Other Streams: Numerous small streams are at least seasonally present on-Reservation and are important feeder streams that enter large systems or flow directly into Puget Sound. An unnamed tributary flows south from the Boeing site along I-5 into Quilceda Creek. This tributary has been identified as a potential salmon rearing stream with the development of a rearing pond to be placed one mile upstream of the

mouth. This stream is unusual in that the groundwater level of the adjacent banks near the head waters appears to actually rise as summer progresses, apparently the belated effect of hill slope with groundwater eventually reaching the flats later in the dry season. However, stream flow is still diminished throughout the summer notwithstanding a greater groundwater component. All streams on Reservation are valued for fisheries and wildlife habitat, cultural and archeological resources, natural scenery and for future potential resources.

4. WETLANDS

Reservation wetlands may occur as isolated pockets or be associated with lake, stream and saltwater shorelines. Wetlands may exist near natural springs and in areas of seasonal ponding or slow drainage, and can form in response to changes in land use or as the result of animal activity such as beavers. Many appear to be dynamic, changing in form seasonally and over the years. Wetlands contribute many important qualities to the natural environment and perform several beneficial functions. They may provide wildlife and fisheries habitat, stormwater control, groundwater recharge, and water purification, as well as enhance open space and natural scenery. The Reservation is fortunate to contain numerous wetlands of various types and sizes.

The principal freshwater wetlands on Reservation are located at Tony's Marsh and along the Tulalip Creek corridor, next to Fire Trail Road in the northwest corner of the Reservation, adjacent to Battle Creek, Sturgeon Creek and Quilceda Creek, and as a large open water area east of Mission Hill and the cemetery. However, important freshwater wetlands also exist as fringe environments along the lake shores and at isolated sites not associated with other features. The saltwater wetlands of key importance are the estuaries and marshes formed at the mouths of Sturgeon Creek, Quilceda Creek, and the Snohomish River. These wetlands are extremely valuable as fisheries and wildlife habitat. Additionally, the Tulalip Bay vicinity contains important wetland habitat, including the mouths of Tulalip and Battle Creeks and the entire periphery of the back bay behind the central sand spit. Other shoreline wetlands such as the spit behind Priest Point are small and generally contained by steep shore side cliffs, although some unusual "wetlands" exist on the face of cliffs where groundwater may be perched and exits the face of the cliff.

The greatest threat to Reservation wetlands is the lack of public understanding and appreciation of their ecological importance. There are slow, but steadily building, cumulative effects of small scale filling and draining that adversely impact many small wetlands that exist on the Reservation. There are areas of water ponding over hardpan (glacial till) that are too small to come under existing protective regulations, or are not mapped and known to the resource management agencies. The many Reservation wetlands that are known have been mapped as sensitive areas, but additional survey work must be done to fully protect the resource. Tulalip is currently conducting a watershed study of the reservation, this study includes mapping and delineating wetlands at a rough scale from aerial photographs, then field checking some of the areas.

5. GROUNDWATER

Groundwater is a key resource for the Tulalip community. The Tribal Water System as well as numerous community and individual systems all draw from the aquifers beneath the Reservation. The Tribal hatchery is heavily dependent on groundwater to supplement surface water systems for hatchery operations.

Beneath the Reservation are several water bearing layers known as aquifers. Generally speaking, the aquifers are layered somewhat like a cake and located between distinct layers of glacially deposited earth materials with varying physical properties. Shallow aquifers have a tendency to parallel surface topography. Wells less than 100 feet are considered shallow and some wells on Reservation are only a few feet deep. A shallow system is usually perched on top of an impermeable layer such as clay or hardpan, or located near sea level. While shallow groundwater is the least expensive to develop, shallow unconfined systems are also the most susceptible to contamination and the short term effects of variations in seasonal and annual precipitation on aquifer recharge. Because of the limited reliability of shallow aquifers, many people choose to develop groundwater at greater depths. Often the deeper aquifers are separated from the immediate surface by an impermeable layer and usually offer high water quality due to longer filtration pathways and pollution barriers. Some water development has occurred at depths well below sea level. Although the deeper systems often have the most stable water table, they may be expensive to reach depending on their distance from the ground surface.

The Reservation's aquifers vary in their ability to provide a specific yield or amount of water. While the presence and characteristics of these aquifers are known on a generalized basis, site specific information may be lacking in some areas until new test holes are drilled. In areas with little or no well log data there is no assurance of finding water at certain depths or adequate flow rates. Well drilling can be a big gamble in glacial materials with little previous adjacent information.

Most of the aquifers at or above sea level are recharged by precipitation, either directly or indirectly. There may be some aquifers which are isolated, and do not recharge, and it is possible that very deep aquifers receive recharge from the lowlands to the east of the Reservation. However, since this has not been scientifically proven, it is presently assumed that their recharge originates primarily on the Tulalip Plateau. A description of Reservation water resources and well logs may be found in the United States Geological Survey open file report #82-648 by B.W. Drost, 1983.

Potential adverse impacts to the groundwater resources of the Reservation are mainly over use, interference with recharge areas, and contamination from septic tanks and other manmade pollution sources. Groundwater withdrawals are strictly regulated by the Tribes, and prior to approval of a request for water the underlying aquifers and their relative demands are scientifically evaluated utilizing a 1990 version of a U.S. Environmental Protection Agency computerized groundwater model. The model evaluates physical criteria

and pumping regimes to determine the zones of contribution for each well head and the potential interference of other systems. Often water permits are conditioned with provisions in order to protect the resource. Tulalip is currently developing a wellhead protection plan to protect the tribes drinking water and hatchery supplies.

6. SHORELINES AND TIDELANDS

The Reservation contains over sixteen miles of saltwater and river shorelines in addition to those of the lakes and streams. Shorelines are important because they provide water access, natural fisheries and wildlife habitats, water pollution control, and scenic beauty. Historically, Indian settlements were often located next to water to assure traditional life style and convenience.

Shoreline environments vary dramatically at Tulalip. Along the southeast edge of the Reservation shorelines of the Snohomish River delta are low in relief, transitional in form and relatively undeveloped. Some log storage and a few waterfront home sites have been developed in the area. Plants and animals in this area must be able to tolerate both fresh and saltwater to varying degrees as a result of tidal and hydraulic influences. The river/saltwater estuary environment is highly valued for its productivity and functions. The River mouth is used for fisheries and wildlife habitat, flood control, recreation, limited commercial activity and water transportation. While some commercial and public access is necessary, significant or uncontrolled development of this area would cause unrecoverable loss of the resource.

Tulalip Bay has a special shoreline environment. The shoreline varies from the boulder strewn beach of Hermosa Point to the muddy flats of the gentle back bay, which is protected by a large central sand spit. The bay is slowly filling up with sediment transported by river, wind and tidal forces. Private homes, the Marina and Tribal Administration buildings front the bay. Hatchery salmon return to the mouths of the two streams in the bay. Adjacent land is gently sloped and waterfront land is at a premium. The shorelines of the bay provide essential access for Tribal fishermen tending set-nets and small skiffs. Overnight fish camps are common, traditional and an important cultural feature which is threatened with displacement by the construction of bulkheads, docks and homes at the water's edge. Although controls are developing, previously unregulated dock and float construction has interfered with traditional shoreline, tideland and water access by Tribal members.

Outside the bay and along the Reservation's southwest coast, one of the most notable impacts of shoreline development is the creation of cliff top home sites. The water's edge, beach cliffs and forested cliff tops create a remarkable scenic contrast. Recent clearing of cliff tops for expensive homes threaten the Tribal culture and way of life. Eagles, a prominent Tribal symbol, inhabit the big, old trees along the shoreline and are being seriously encroached upon. Big trees block views, so they are being cut down destroying

the shoreline environment. High bank beach towers, tramways and stairs have proliferated. Their number exceeds that necessary for appropriate access, and adds to shoreline impact.

The northwestern shoreline is characterized by a short, steep beach head of sand and gravel, running out to a long gentle tide flat of finer sand and mud before dropping off to deeper water. Steep banks or cliffs abut the shoreline and vary in height from 10 to 300 feet. Several communities such as Tulare and Tulalip Shores are perched on narrow benches immediately below the cliffs where historic landslides, erosion, waves and tidal action have built up a little extra beach. Beach front lots are typically very small and originally intended for summer homes. All of these homes are on septic tanks of questionable efficiency and impact. Some homes are also built directly on the steep hill faces. Both types of homes are occasionally threatened by high tides and/or land slides. Geologically speaking the Tulalip shoreline is very active.

The Tribal membership uses and enjoys its access to tidelands resource. Fishing and shellfish gathering activities are traditional for Tribal members. Simply walking the beach is also very popular. Although the Tribes have not restricted access to the tidelands in the past, controls may have to be exercised if the impacts of increased development are unmitigated. Presently, bulkheads must be placed above the high tide mark, and Tribal approval is necessary for docks and bulkheads to insure preservation of the resource and avoid conflicts with fishing and shellfish gathering. The shorelines and tidelands of the Reservation are part of the essential Indian character of the Reservation and their protection is vitally important.

C. FISHERIES

Many Tribal members consider fisheries to be a very important resource. The Tulalips are a fishing people dependent on this resource for subsistence, income, ceremonial and cultural purposes and therefore for their ultimate survival. Fisheries resources important to the Tribes include various species of salmon, trout, bottom fish, baitfish and shellfish including crab, clams, mussels, oysters, halibut, shrimp, and other species. Indian fishing is a traditional way of life and a Treaty right both on and off the Reservation. No land use action should be permitted that would have a significant negative impact on Indian fishing.

The Reservation lakes, rivers, streams, wetlands, groundwater and saltwater all play interdependent roles in the production, preservation and enhancement of the fisheries resources. Natural fish and shellfish production occurs in most of the aquatic systems on Reservation. Reservation lakes are valued for recreational fishing. Streams and beaver ponds are fished too. Stream waters that appear too small for actual habitat may be headwaters or important feeders of larger, more viable systems. Wild fish occur in Tulalip Creek, Battle Creek, Quilceda Creek and lower Sturgeon Creek. Hatchery fish return to Tulalip Creek and Battle Creek. Hatchery releases may occur in the future on Quilceda Creek. The hatchery releases substantial numbers of fish in the Snohomish and Stillaguamish River systems.

The Tribal fish hatchery, located on the interior of Tulalip Creek, was built in 1980 and can produce over nine million salmon per year. The hatchery relies on the water from the East and West forks of Tulalip Creek and pathogen free groundwater pumped from a well for production. Annual production varies and is managed to produce the maximum number of fish possible for the seasonally available water supply. The hatchery utilizes rearing ponds on site and at the mouths of the Tulalip and Battle Creeks at Tulalip Bay. The hatchery operates at maximum achievable capacity; production would be increased if additional water was available, and conversely a reduction in water supply would result in a decrease in production.

Tide flats on Reservation may appear barren at low tide, but host subsistence level clam, crab and potentially commercial level ghost shrimp populations. Eel grass patches provide spawning substrate for baitfish, food for waterfowl and a haven for other marine creatures. Shellfish gathering is quite popular, and beachfront developments must maintain properly functioning septic systems or be on sanitary sewers to protect the resource. The Tulalip Tribes hope to certify beaches as sanitary for commercial shellfish relays and harvest. The Tribes have a vested interest in shellfish production both on and off Reservation and are actively seeking to expand the availability of this resource.

D. FORESTRY

Historically the Reservation was almost completely forested. Giant evergreen Fir, Hemlock and Cedar trees were the predominant species and old stumps up to 15 feet in diameter can still be found. However, only a few scattered old growth trees remain standing; mostly along the cliffs, steep hillsides and wetlands areas.

Early white settlers first began logging in this region in the 1850's. Tulalip Bay became the site of several sawmills, but most of the Tulalip area was logged after it was established as an Indian reservation. The Bureau of Indian Affairs conducted much of that logging in the early 1900's. Because there was no replanting of trees after initial logging, the predominant species changed to the primary successional species of Red Alder and Maple, while Cedar and Black Cottonwood prevailed in the wetter areas. The overall effect was a conversion of the original evergreen forest to a mixed and predominantly deciduous (broad leaf) forest.

Modern logging practices on-Reservation include replanting and regeneration of the original evergreen species after harvesting the existing mixed second and third growth stands. Tree tops and limbs, called "slash", are piled in narrow rows and left to rot instead of being burned after logging; reducing air pollution and providing nutrients to the site as they decay. Strips of standing trees are left along lakes, streams and wetlands areas to create a buffer providing shade, erosion control, and fisheries and wildlife habitat. Buffers are also left along scenic roadways or neighboring communities where appropriate. Steep slopes may be tower (cable) logged to minimize erosion. Road building is kept to a minimum, and after logging roads may be blocked to vehicles to prevent vandalism and preserve wildlife areas. Large tract clearcutting is discouraged, since clearcutting and replanting results in even aged stands of timber with a

different wildlife habitat value. The luscious foliage that abounds after clearcutting, and the creation of fringe habitat where the clearcut ends are desirable for deer and rabbits for example, but temporarily displace species dependent on the forest canopy for habitat and protection from predators, e.g., squirrels and owls. Smaller clear cuts, partial cuts and layered cuts are becoming more common, thus maintaining forest diversity for wildlife and meeting the need for other multipurpose uses such as recreation. Prior to logging, all sites are surveyed for sensitive areas that should be preserved to maintain their ecological contribution to the environment, e.g., important nesting areas, aquatic resources and critical watersheds.

Emphasis is placed on complete utilization of the timber resource. For instance, hardwood species which were previously considered near worthless are now harvested. Alder and Maple saw logs are actively marketed and firewood cutting is often permitted in an area after commercial harvest. Clearcutting is less common now, especially if a significant number of immature trees are present. Aerial chemical spraying is sometimes necessary in areas where competing brush and undesirable trees will overtake and shade out the planned forest.

Tribal members are dependent on the forests and the resources they provide for subsistence, income and ceremonial purposes. The Tulalip Tribes operate a forestry enterprise company that logs Tribal and non-Indian lands under contract. The enterprise provides job training, plantation management, tree harvesting, tree planting and road building services. Revenue from Tribal logging helps provide paying jobs that support families. Forest plants and wildlife provide food and fiber for subsistence and traditional activities. The forests also provide recreation and spiritual refuge from the outside world. Tribal life-styles have always been closely linked to the forests.

The outlook for forestry on-Reservation is generally positive. Presently, about 6,000 acres of Tribal and Indian-owned land is managed and maintained for forestry. In addition, several non-Indian timber companies and individuals also own and manage another 4,000 plus acres in forestry. While large lots of 5 to 20 acres used as home sites contribute to the forested land base, they are not actively managed for timber production purposes. The comprehensive land use plan will preserve a large portion of the interior Reservation and other undeveloped tracts in a forestry and natural resource management use. Such preservation is critical for the survival of Tribal culture and the distinct Indian character of the Reservation. The greatest threat to forestry on-Reservation is the availability of large tracts of land at low price to potential developers who do not have the long term interests of the Tribal membership and Reservation community at heart.

E. PLANTS AND ANIMALS

Because Tulalip is composed of a variety of physical features and environments, there is a remarkable diversity of plants and animals on and near Reservation. The environments found on-Reservation include: Open water marine, sub-tidal, inter-tidal, estuarine, freshwater lake and streams, wetland and shoreline, open meadow/pasture, broad leaf forest, mixed forest, evergreen

forest, upland primary successional forest agricultural and suburban landscaped. These are dynamic environments that change seasonally, annually and in response to natural and unnatural disturbances.

Both native and introduced species of plants are found on-Reservation. Since plants are highly competitive, predominant species stand out where growing conditions are most favorable for each type. Certain introduced species have displaced or replaced native species in several instances. Often this can be detrimental to the overall plant community by disrupting the natural balance of the species.

The Comprehensive Plan works to preserve the presence and balance of native plant species, especially those traditionally important to Tribal culture. Tulalip Indians utilize many native plants for food, fiber, dyes, clothing, medicine, tools, and spiritual and ceremonial purposes. These include the Cedar tree, Ironwood, Licorice fern, Sword fern, wild berries, Nettles, cattail root, marsh tea, skunk cabbage and a host of other species either consumed or turned into usable products. Some species have very deep spiritual significance and are closely guarded from extinction on-Reservation.

The abundance, diversity and preservation of native plants and animals is of paramount importance to the Tribes. The plant and animal communities are interdependent entities, and because of their close association with the native plants and animals the Tulalip tribal members are likewise interdependent on these natural communities.

Animals important to Tulalip are as diverse as their environments listed above. Species of primary importance include: Killer whales (orca), Salmon, Trout, bottom fish, baitfish, shellfish, waterfowl, Eagles, hawks, Ravens, Herons, owls, grouse, pheasant, frogs, turtles, snakes, deer, elk, bear, cougar, otter, beaver, martin, mink, muskrats, rabbits, raccoons, porcupine, fox, coyote and wolf. All of these, except for elk and wolves, have been observed recently on-Reservation. Some species such as Bald Eagles and Blue Herons have been the subject of specific preservation plans, including designated habitat areas and conservation set-asides. At least four Eagle territories and one Heron Rookery can be found on-Reservation.

Population growth and development pressure on resident plants and animals have had a significant negative impact on these resources. Plant and animals are either displaced or destroyed to some extent whenever the land is cleared and people move in. To minimize this impact, the Tribes would prefer that as yet undeveloped lands remain that way and that any losses be fully mitigated.

F. EARTH MATERIALS

Earth materials are those materials that lie below the ground surface. On-Reservation, this natural resource includes soils, sub-soils and underlying strata or bedrock. Some of these

materials may be used for construction, as mineral ore, as soil amendments, or as industrial abrasives.

Because the Reservation was created as a result of glacial and erosional processes, a tremendous variety of materials may be found. Perhaps the best way to distinguish glacial materials is particle size. The smallest sized materials are the clays, whose particles are less than .002 millimeters (mm) in diameter, followed by silt ranging from .002 to .06 mm, then sand from .06 to 2.0 mm, gravel from 2.0 mm up to cobble size, and finally boulders. Other distinctions include particle shape, relative surface area, chemical composition and hardness. These parameters affect how earth materials interact with the overall environment and their suitable uses.

As a natural resource, each different soil type has a distinct physical, chemical and biological character that makes it best suited for certain purposes while being inappropriate for others. For example, agricultural soils add to the diversity of potential land uses and may prove important in the future as another commercial opportunity. About 900 acres of agricultural soils are located in the northeast corner of the Reservation. Other important soils are those suitable for forestry and those suitable for development. Development requires certain load bearing capacity, adequate drainage and sometimes septic capability. Soils of the Reservation are mapped in the Soil Survey of Snohomish County Area, Washington, published by the Soil Conservation Service.

Subsurface materials of interest on-Reservation include extensive deposits of clay, sand and gravel. Sand and gravel are used as building materials for the production of cement, asphalt, sorted rock products, and as filter media in waste treatment systems. Clay material has use in special applications such as a water and bacteria proof sealant, some brick manufacture and as impermeable land fill cover.

A number of small sand and gravel pits are located on-Reservation but are used mostly for construction of local roads and buildings. The older pits, which were sited prior to substantive land use regulations, may conflict with other neighborhood uses. Some pits were used as garbage dumps after useful material was extracted and pose future potential environmental problems. Any future pit siting and production will be closely regulated to insure positive benefit without severe environmental consequences. Sand and gravel development may prove to be a very beneficial avenue for the Tribes to pursue.

G. CULTURAL AND HISTORICAL

A primary link with past Tribal culture is through the preservation of historical and cultural resources. These may be defined as archeological sites, spiritual and religious sites, historical buildings, monuments, cemeteries, and other significant sites contributing to the local history.

CHAPTER 5: NATURAL RESOURCES

Maintaining a Tribal identity and culture is extremely important to Tulalip. That is what gives the Reservation its essential and unique Indian character. Many areas and landmarks are significant to Tulalip cultural preservation some of which have been identified and mapped. While much of this information is restricted to Tribal members only, some sites are obvious and well known. Public features include: A Tulalip Bay longhouse site, Skayu (ghost) Point, Mission and Priest Point cemeteries, an approximately quarter mile long shell midden, Tulalip Indian School, St. Anne's Catholic Church, Tulalip Creek dam, White Rock, Spee-Bi-Dah, Quilceda Creek, Indian Shaker Church and the Potlatch Grounds.

Modern cultural resources include the Smokehouse, Tribal Center, Marina vicinity, Hermosa Point, the Fish Hatchery and the Tribal Entertainment Center.

Whether historical or modern, cultural resources, ceremonies, and traditions link Tulalips with their past while creating new traditions for the future. They should be vigorously protected from loss or disruption. Any potential development activity should be carefully evaluated for its impacts on Tribal historical and cultural resources.

The Board of Directors has directed staff to develop, adopt, and implement a plan for the protection of cultural and historical resources on the Reservation. The plan will set forth protection measures to ensure that no development occurs within or adjacent to culturally significant sites without an extensive environmental impact review, Tribal departmental review, and a minimum of three public hearings by the Board of Directors. At a minimum, a 500 foot no-impact buffer should be established around significant cultural sites.

CHAPTER 6: SENSITIVE LANDS

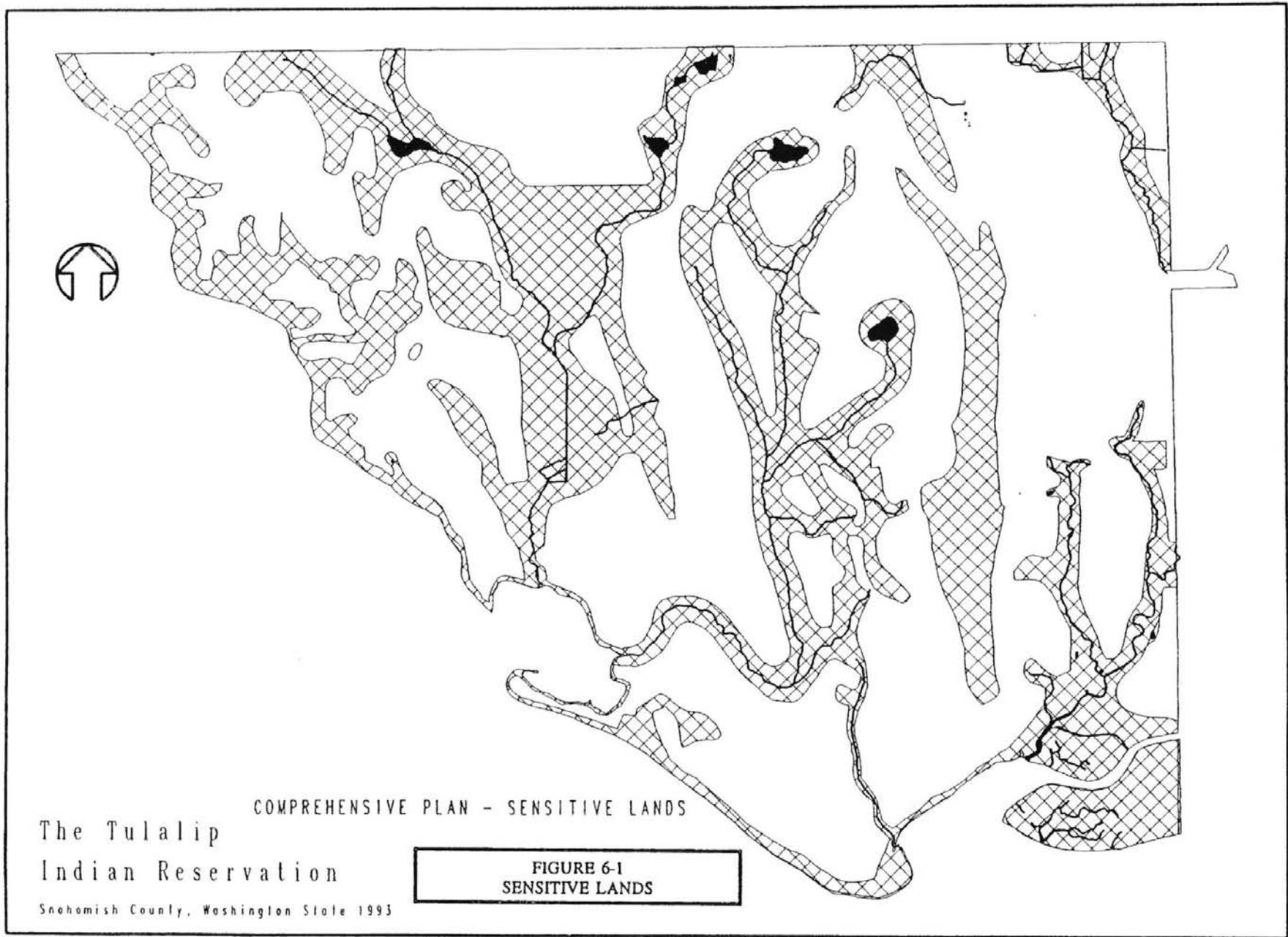
Chapter 4 and 5 describe a variety of physical features and natural resources on-Reservation. Some of these features and resources, such as steep slopes or certain soil types, physically limit development. Others, such as wildlife habitats or Tribal cultural sites, are considered worthy of preservation in their natural state and should not be disturbed by development. Lands that have physical limitations for development or natural resources requiring preservation have been designated as "Sensitive Lands."

Sensitive Lands are subject to special regulatory policies and controls in addition to their Comprehensive Plan land use designations and the maximum density allowed by zoning ordinance. Development of certain areas may be precluded, regardless of the overlying zoning, while others may require special siting considerations or mitigating actions. To be designated as Sensitive Land one or more of the following criteria must be present:

- o A Tribally designated community wellhead protection zone, which may include the area of groundwater recharge and/or zone of contribution where there is potential for contamination or disruption of a well field due to any ground surface disturbance, land use action, development or placement of competing wells or septic systems.
- o Surface water resources such as lakes, ponds, seasonal and perennial streams, springs, wetlands, and their immediate shorelines and buffer zones, especially when used for domestic, agricultural, commercial, cultural or recreational purposes.
- o Saltwater shorelines including the tideflats and any adjacent beaches and/or bluffs, and all of Tulalip Bay.
- o Slopes over 15% grade or otherwise subject to slope instability and potential landslide or significant erosion.
- o Special soil types; including hydric soils, soils known to be unsuitable for building foundations and road beds, soils that support rare or culturally important plants or animals, and soils considered to be critical resources.
- o Essential habitat for animals and/or plants considered culturally important to the Tribes, especially Fish, shellfish, Eagles, Hawks, Falcons, Owls, Deer, Bear, and Cedar and Ironwood trees.
- o Tribally important archeological, historic or cultural sites.
- o Tribally designated scenic view points, such as the top of Mission Cemetery hill and other prominent outlooks along the bluffs of the saltwater shoreline, some of which are used as fishing lookouts.

The presence of any of the above features qualify an area as appropriate for Sensitive Lands designation. The Sensitive Lands map (Figure 6-1) depicts the areas currently identified. Every attempt has been made to accurately identify and locate these features. However, in the event an unmapped area exhibits any of the characteristics outlined in the above criteria, they shall be considered to be Sensitive Lands pending evaluation and action by the Tulalip Planning Commission and Board of Directors. Unless decided otherwise, they are subject to all Sensitive Lands policies and regulations.

The primary purpose for the identification of, and regulation within Sensitive Lands is to protect the public health, safety and welfare, and preserve the cultural, historical and natural resources of the Tulalip Reservation that are fundamental in insuring the essential Indian character of the Reservation. The suitability of a land use action proposed for an area containing Sensitive Lands will be evaluated under parameters established by the implementing zoning ordinance and other applicable ordinances. The policies of the "TULALIP TRIBES INTERIM SENSITIVE LANDS DEVELOPMENT POLICY" contained in Appendix A are incorporated into, and made part of the Tulalip Comprehensive Plan.



COMPREHENSIVE PLAN - SENSITIVE LANDS

The Tulalip
Indian Reservation

Snohomish County, Washington State 1993

FIGURE 6-1
SENSITIVE LANDS

CHAPTER 7: POPULATION

Population analysis and forecasting is the basis from which land use and community development plans are made. Accurate projections are necessary in order to predict future land use and service needs and to design developments and programs to meet those needs. For this plan, descriptions of past trends, current rates of change and probable future events were used in developing reliable profiles of community socio-economic characteristics. These profiles were used in analyzing the Reservation's three primary population groups, the year-round Tribal and year-round non-Tribal populations and the summer seasonal population. Much of the Tribal and most of the non-Tribal population commute to jobs off the Reservation. The summer seasonal population is largely comprised of families with summer recreational housing and retirees.

The primary sources for population data on the Tulalip Reservation are the 1980 and 1990 United States Census results, Tulalip Tribal enrollment records, and projections by the Snohomish County and Tulalip Planning Divisions. In addition to these sources are projections prepared by the Bureau of Indian Affairs, the Puget Sound Council of Governments (PSCOG), the Washington State Office of Financial Management (OFM), and the Everett/ Snohomish County Impact Coordinating Council, as well as information contained in the Final Environmental Impact Statement for Carrier Battle Group Homeporting in the Puget Sound Area.

A. DEMOGRAPHICS

According to United States Census results 455,642 people lived in Snohomish County and 7,103 people lived on the Tulalip Reservation in April 1990. On the Reservation the population density was approximately 208 people per square mile. 17% of the Reservation's population was Indian and 83% was Non-Indian. Approximately 84% of the County's Indian population lives outside the Tulalip Reservation and the great majority of these people are not Tulalip Tribal members. Table 7-1 below compares the County's current (1990) racial makeup on and off the Reservation.

The difference in age distribution in 1980 between Indians and non-Indians on the Reservation actually mirrored the County's Indian population as a whole, with 59% of the Indians under the age of 25 compared to 40% for the Caucasian population. This phenomenon was similar to other minorities in the County with 54% of Blacks, 56% of people of Spanish origin and 47% of the Asian community under the age of 25. This age distribution phenomenon continued through the 1980's as shown by the age distribution data of Tables D-2 and D-3, Appendix C. These tables compare the Reservation's 1986 population to that of the entire County.

Analysis of the 1990 Census data reveals that the Indian population remained significantly younger than the non-Indian population on the Reservation with 54% under the age of 25 compared to 32% for the non-Indian population. This was largely the result of a high birth to

death ratio compared to the non-Indian population. Tables 7-2 and 7-3 below show the Reservation's 1980 gender and age distribution by Indian and non-Indian respectively. (1990 gender-age/race data was not available at the time of publication.)

TABLE 7-1
1990 RACIAL DISTRIBUTION OF
SNOHOMISH COUNTY AND TULALIP RESERVATION
 (Percentages rounded to nearest tenth)

	Tulalip Reservation	Remainder of the County	County Total
RACE			
White	5,747 (81%)	428,789 (94%)	424,536 (93%)
Indian	1,204 (17%)	5,218 (1.1%)	6,422 (1.4%)
Asian	86 (1.2%)	16,381 (3.6%)	16,467 (3.5%)
Black	34 (0.5%)	4,733 (1.0%)	4,767 (1.0%)
Other	<u>32 (0.4%)</u>	<u>3,418 (0.7%)</u>	<u>3,450 (0.7%)</u>
TOTAL	7,103	458,539	455,642
Hispanic ¹	165	10,491	10,656

¹ Hispanic people are included in the racial figures listed above

TABLE 7-2
NON-INDIAN AGE DISTRIBUTION BY GENDER
ON THE TULALIP RESERVATION
1980 DATA

AGES	MALES					FEMALES					
75+					43					50	
65-74					140					135	
55-64					191					195	
45-54					215					210	
35-44					283					261	
25-34	467									413	
20-24					174					196	
15-19					155					136	
10-14					180					161	
5-9					183					133	
0-4					175					170	
POP.	500	400	300	200	100	0	100	200	300	400	500

TABLE 7-3
INDIAN AGE DISTRIBUTION BY GENDER
ON THE TULALIP RESERVATION
1980 DATA

AGES	MALES					FEMALES					
75+					10					10	
65-74					8					13	
55-64					13					15	
45-54					26					22	
35-44					41					44	
25-34	48									59	
20-24					44					29	
15-19	51									49	
10-14					46					51	
5-9					34					51	
0-4	49									57	
POP.	50	40	30	20	10	0	10	20	30	40	50

B. POPULATION TRENDS

The population figures for the 1960, 1970, 1980 and 1990 U.S. Censuses on Table 7-4 below show that the population growth trends in Snohomish County and on the Tulalip Reservation are historically stronger than for the State as a whole. The Tribal population growth was stronger than non-Tribal growth for the period but the Tulalip Tribal growth rate was slightly less than the average for other Indians in the state. In the 1960 U.S. Census 23% of the Reservation's population was Indian and the 1970 U.S. Census showed that this percentage had dropped to 15%. The 1980 Census showed that this declining population trend had stopped and the Indian population percentage was 16%. The 1990 Census shows a slight increase in percentage over 1980, with the Indian population on-Reservation at 17%.

TABLE 7-4
UNITED STATES BUREAU OF CENSUS
POPULATION STATISTICS 1960 - 1990

	1960	1970	1980	1990
TOTAL POPULATION				
Washington State	2,853,000	3,409,000	4,123,000	4,887,941
Puget Sound Region ²	1,512,000	1,934,000	2,240,265	2,748,895
Snohomish County	172,199	265,199	337,720	465,642
Tulalip Reservation	1,687	3,038	5,046	7,103
INDIAN POPULATION				
Washington State	21,076	33,386	60,833	81,483
Snohomish County	888	2,105	3,790	6,422
Tulalip Reservation	397	465	790	1,204
TOTAL POPULATION - AVERAGE ANNUAL INCREASE 1970-1980				
Washington State	1.9			
Puget Sound Region	1.5			
Snohomish County	2.4			
Tulalip Reservation	5.2			
INDIAN POPULATION - AVERAGE ANNUAL INCREASE 1970-1980				
Washington State	6.2			
Snohomish County	6.0			
Tulalip Reservation	5.2			

²*Includes King, Snohomish, Pierce and Kitsap Counties.

C. SEASONAL POPULATION

The 1990 U.S. Census shows 4,026 total housing units and of that number 1,404 (or 35%) were seasonal housing. This is an increase over the 1980 figures of 2,091 total housing units and 262 (or 12.5%) seasonal housing units. In 1980 the Reservation's seasonal housing was similar to other areas of Snohomish County with recreational housing (such as the Warm Beach - Lake Goodwin area north of the Reservation). The 1990 data, however, shows a great increase in this seasonal population since 1980. The majority of seasonal housing on the Reservation is located in the beach communities. The greatest concentration of these units is in the Port Susan Camping Club located at Weallup Lake near the northwestern corner of the Reservation, and it has been reported and estimated that approximately 400 of these units are used for year-round or main residency.

Assuming these seasonal housing units have the same household size as the year-round housing units, it can be assumed that approximately 3,800 additional people (using 1990 household size data) would reside on the Reservation if they all arrived during the summer. Alternately, assuming that a disproportionate percentage of these summer homes are retirees and that half of this total population is present during the average summer week the figure would still amount to 1,500 additional people with peaks during the summer holidays of perhaps 3,000. This equates to an effective periodic increase in population of 21% - 42%. Using the Census counts for the Reservation's 1990 population of 7,103, it is estimated that approximately 8,595 persons reside on the Reservation for significant portions of the Summer with potential population peaks of 10,086 for the summer holidays.

D. POPULATION PROJECTIONS

The total Reservation population at the beginning of 1990 was determined by the U. S. Census to be 7,103 permanent residents. This number is supplemented annually by a growing number of seasonal residents (see Paragraph C "SEASONAL POPULATION", above). The population of Tribal members residing most of the year on the Reservation is expected to increase at an annual rate of 5% between 1990 and 2000, from 1,357 to 2,212. In addition, the population projections contained in the final Environmental Impact Statement for the Navy's Carrier Homeporting project estimate an addition of two to three hundred people to the Reservation as a result of the project.

The population projections prepared by the Puget Sound Council of Governments (PSCOG - now the Puget Sound Regional Council) base their population projections on year-round housing units. Population estimates based only on year-round housing greatly under-estimates the effective population of the Reservation and the demands placed on the Reservation's infrastructure (road, water, sewer capacities and sizing). Generally, population projections done to date have not adequately accounted for Tribal and non-Tribal housing on Tribally owned lands which are outside of the County permit process. There is also a possibility of unpermitted

housing construction on non-tribal lands on-Reservation which did not enter the County database for projections.

Population estimates for 1990 and projections through the year 2000 using 1990 Census data and Snohomish County Planning Department population projections, with adjustments by Tulalip Planning Department (to include impacts of "seasonal" housing and Navy Homeport activities and tribal enrollment records) are summarized in Table 7-5 below. The annual projections through the year 2000 are included in Table D-1 of Appendix C.

TABLE 7-5

TULALIP RESERVATION POPULATION PROJECTIONS
SUMMARY OF YEARS 1990 AND 2000³

	<u>1990</u>	<u>2000</u>
Tribal	1,357	2,212
Non-Tribal	5,899	6,670
Total	7,256	8,882

These population projections were developed considering other possible factors that may influence projections such as:

- o New employment opportunities on or near the Reservation.
- o Conversion of forest land to housing developments.
- o Approval of other large housing developments.
- o Changes in the nature and scope of the Navy Homeporting Project or other comparable high impact projects.
- o A sharp increase or decline in population growth rates.

The previous projections indicate that the Tulalip Tribes' youthful population will require a greater emphasis in prenatal care and pediatric care for Tribal health care planners and care providers than will be needed for the general population. There will be a greater demand for three bedroom starter homes and rental housing units from Indians (not just Tulalip tribal members) per capita than from the general population which is experiencing a lower birth rate.

³**SOURCE:** 1990 U.S. Census and Snohomish County Planning Department Population Projection adjusted by Tulalip Planning Department to reflect "seasonal" population, known tribal population growth rate, and projected Navy related development.

CHAPTER 7: POPULATION

The population projections for the Tulalip Reservation are revised as new data becomes available. During the useful life of this planning document population figures and forecasts will be updated regularly with the latest information being placed in Appendix C.

CHAPTER 8 - LAND USE

.. LAND USE PLANNING

1. ORGANIZATION AND INTENT

The Land Use Element of this Comprehensive Plan is prepared for reasons indicated in the Introduction (Chapter 1) in order to assure the compatibility of land uses on the Reservation; to protect the natural resources which are abundant in the area; to ensure that adequate locations are provided for affordable housing; and to protect the property rights of all citizens of the Reservation. The goals and objectives of this element are intended to guide the Reservation's land use decisions.

2. LAND USE CRITERIA

Each section of the Comprehensive Plan provides the supporting information and reasoning which resulted in the creation of the final land use plan. In addition to the goals and objectives outlined in this document, specific criteria were used in determining the final land use designation for each area. They are:

- o The protection of the essential Indian and Tribal character of the reservation in its entirety.
- o The ultimate needs of the Tribal community, as well as the general community, in light of the purpose for which the Reservation was established.
- o The suitability of the natural environment to support a specific land use action and settlement density.
- o The historical and existing land use development patterns and projected trends.
- o The presence (or absence) of existing infrastructure such as roads, power, water, sewer and their ease of expandability.
- o The right of property owners to enjoy and benefit from their land while preserving their neighbors right to a peaceful and predictable coexistence.
- o The need to maintain a portfolio of land use diversity which will assure the greatest opportunity and quality of life for future generations of Tulalip residents.
- o The prevention of the serious impacts that would result from growth and development and land use on the Tulalip Reservation, absent exercise of Tribal regulatory zoning authority to effectuate the goals and policies reflected in this Plan, and which would imperil Tribal political integrity, economic security, and the health and welfare of the Tribes and its members, as well as that of other Reservation residents.

B. LAND USE CATEGORIES

In accordance with the required elements of the Comprehensive Plan as prescribed by Ordinance and the aforementioned criteria for land use designation, the following land use categories have been established:

1. RESIDENTIAL AREAS

This is the most important land use type on the Reservation. Since the Reservation was established as the principal homeland for the Tribes, it is essential to provide adequate space for the housing of present and future generations of all Tribal members. The residential designation includes all types of permanent housing; individual homes, multiple units and institutional living such as elders complexes or juvenile centers. In addition, residentially compatible integral facilities such as schools, churches, fire stations, public administration buildings, water distribution and treatment facilities, cemeteries and neighborhood parks are permitted. Any other land use activity within residentially designated areas must be compatible with and essential to the residential community.

2. MIXED RESIDENTIAL/COMMERCIAL

This land use designation permits the co-mingling of small businesses and neighborhood commercial services that are not likely to disrupt the functions of the residential area as a whole. It allows for multiple uses of especially versatile areas commonly used for many different purposes such as the Tulalip Bay Marina vicinity. Finally, this designation will allow future development of beneficial neighborhood services where they are needed, but may not currently exist.

3. COMMERCIAL

This designation allows land to be used for small and medium size businesses. Included are wholesale and retail outlets, dealerships, professional services, food and entertainment facilities, hotel/motel complexes and some forms of light manufacturing where there is no significant pollution discharge to earth, air or water. Areas designated as commercial usually have full utilities service and access to major transportation routes. Individual businesses will typically occupy 10 acres or less and function essentially independent from one another. New residential development should be discouraged in these areas.

4. INDUSTRIAL

These areas are designated for heavy industrial use, and for uses and activities typically associated with a business park. They require special utilities and transportation access. They may include large commercial operations, manufacturing and testing facilities, bulk raw material processing and storage, heavy shipping and receiving. The industrial designation encompasses all business uses that would be too large or disruptive to fit within

a commercially designated land use area. Industrial areas may include less intensive commercial and/or recreational uses, provided that there is adequate physical separation between higher and lower intensity uses.

5. RURAL/AGRICULTURE

This designation applies to rural, small farm land use. The high water table, soil types, lack of water and sewer services and generally poor suitability for development support maintaining the existing predominant use as farmland. Row crops, blueberries, orchards, tree farms, hay growing and livestock rearing are all farm activities well represented in this area.

6. FORESTRY

An integral part of Tulalip life is the close relationship with the forest and all that it provides. The forestry land use designation is intended to preserve large contiguous tracts of land for natural resource management. These lands provide timber, water resources, fisheries and wildlife habitat, spiritual refuge, recreation and open space. Preservation of these areas is important to the future well-being of the Tribes. Areas designated for forestry use contain several of the following features; potentially marketable timber or harvested and replanted areas, critical watershed basins, large parcels of Sensitive Lands, and major wildlife habitat. They are typically 20 acres or larger in size, have no improved roads or services, and are generally located in the interior heartland of the Reservation.

7. RECREATION

These land use areas are tracts over 20 acres in size that have been designated for recreational purposes. This is a special designation that limits the land use to temporary and/or seasonal activities such as camping, outdoor activities, and sports facilities. Examples are an approximate 900 acre camping club facility and one existing and one proposed golf course. Smaller recreation facilities such as parks, picnic areas, beach access and ballfields may be included in other land use areas without special designation. For policies guiding the need, prioritization, and development of these facilities refer to the 1993 Tulalip Comprehensive Parks and Recreation Plan.

8. CONSERVATION

A designated conservation area is one that should be left in its natural state, because it is so unique to the reservation that it would be difficult to replace if damaged. Conservation areas differ from Sensitive Lands in that some development may occur within a Sensitive Land area if it can be done with no discernible harm to the environment. No development is allowed in an area designated as conservation with the exception of utility crossings.

9. SENSITIVE LANDS

The Sensitive Lands designation is not a land use category in itself, but an overlay of additional land use restriction. It includes lands with physical limitations to development, such as poorly drained soils or steep slopes, and important archeological, historic, or cultural sites. The Land Use Map shall be used in conjunction with lands identified as "Sensitive lands" on the "Sensitive Lands Map" or lands meeting the sensitive lands criteria in Chapter 6. The Sensitive Lands Interim Development Policy (Appendix A) shall apply to sensitive lands in all land use districts.

C. LAND USE CLASSIFICATION SUMMARY

Refer to the adopted land use designations on the Comprehensive Plan Land Use Map at the beginning of this chapter (Figure 8-1) to review the allowed land uses on various areas of the Reservation (as designated). See Figure 8-2 for ownership delineation, i.e. Tribal land, allotted (Indian) land, and alienated (non-Indian) land.

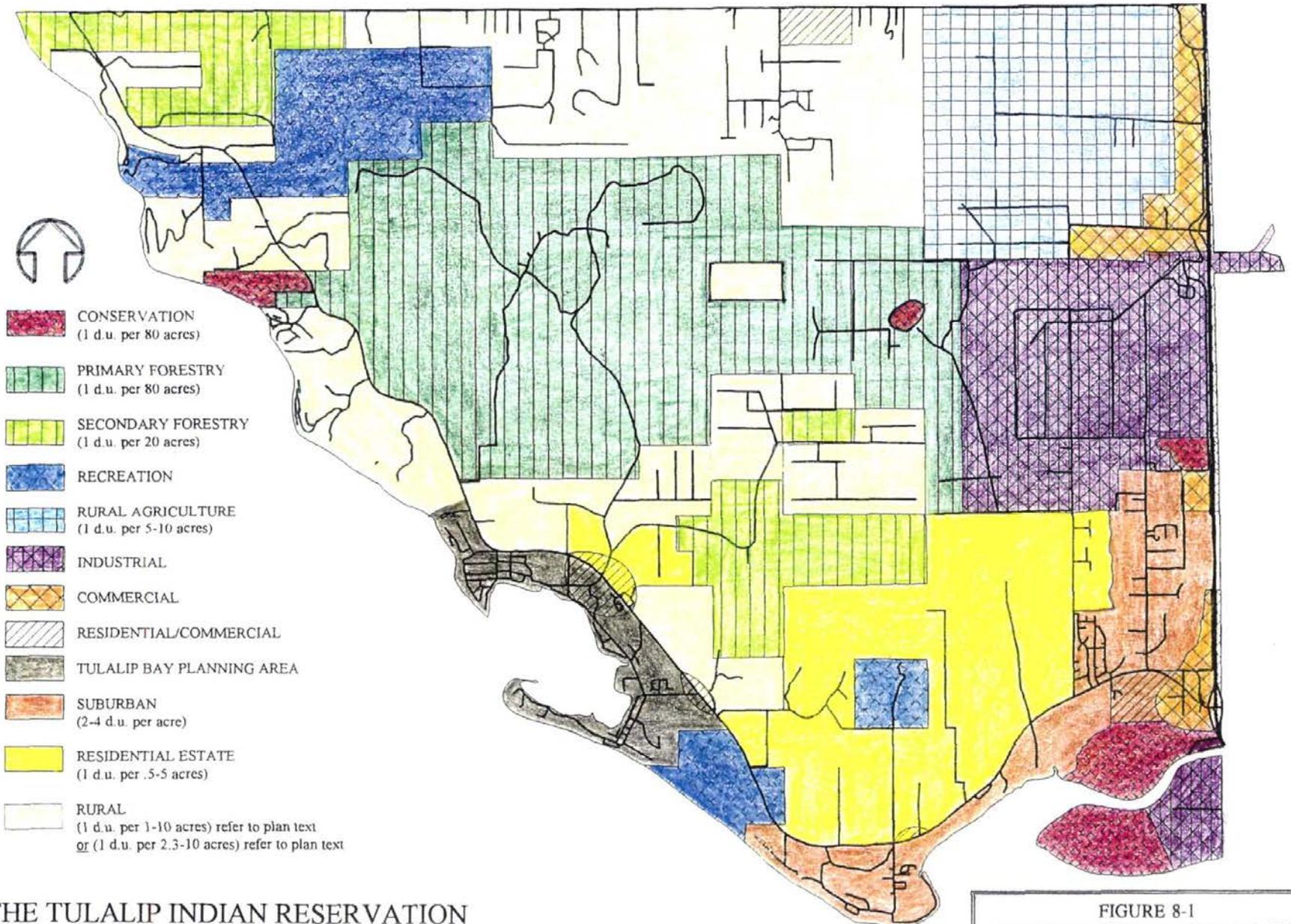
Each land use category previously described above is intended to be used to determine the general character of an area or zone. Any land use action must be consistent with the intent of each land use classification and zone.

After the Board of Directors of the Tulalip Tribes of Washington has approved and certified this Comprehensive Plan, it shall be used as the basic source of reference and as a guide in reporting upon or recommending any proposed project, public or private, as to its purpose, location, form, alignment and timing. The report on any projects shall indicate where in the proposed project it does or does not conform to the purpose of the Comprehensive Plan and may include proposals which, if affected, would make the project conform.

D. DESIGNATED LAND USE AREAS

1. RESIDENTIAL AREAS

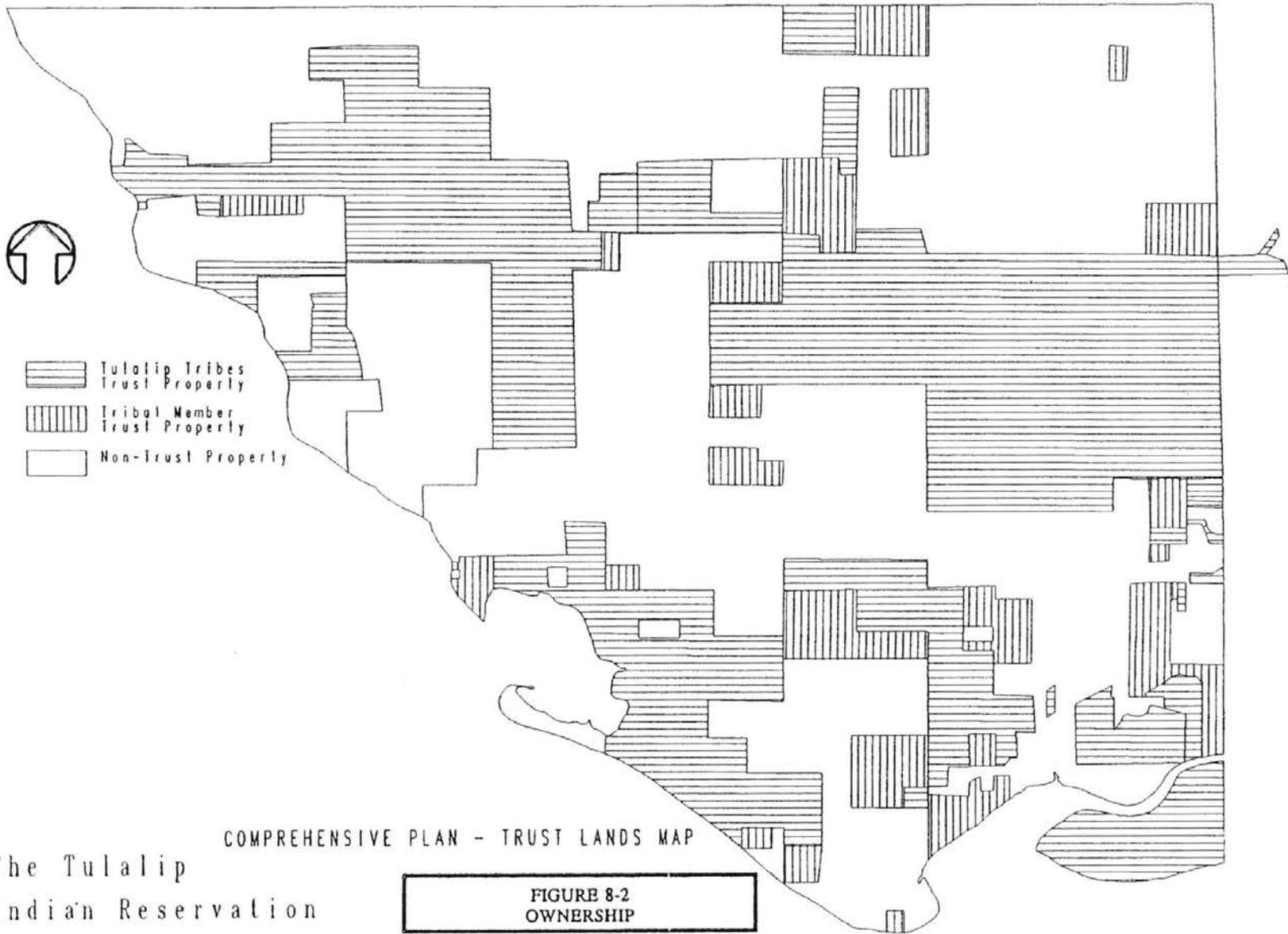
The majority of the Reservation land base is used for residential purposes. A total of 9,776 acres are designated Residential and additional residential use occurs in the Rural/Agriculture and Mixed Residential/Commercial areas. Housing density varies from one dwelling unit per 20 acres to multiple dwelling units on small fully serviced lots. The purpose of the Residential designation is to promote the in-filling of existing Residential areas and to meet the anticipated demand for housing. The greatest densities occur in areas where home sites are desirable, site conditions are suitable, utilities infrastructure is available, and anticipated facilities improvements can meet the additional demand for living space.



- CONSERVATION
(1 d.u. per 80 acres)
- PRIMARY FORESTRY
(1 d.u. per 80 acres)
- SECONDARY FORESTRY
(1 d.u. per 20 acres)
- RECREATION
- RURAL AGRICULTURE
(1 d.u. per 5-10 acres)
- INDUSTRIAL
- COMMERCIAL
- RESIDENTIAL/COMMERCIAL
- TULALIP BAY PLANNING AREA
- SUBURBAN
(2-4 d.u. per acre)
- RESIDENTIAL ESTATE
(1 d.u. per .5-5 acres)
- RURAL
(1 d.u. per 1-10 acres) refer to plan text
or (1 d.u. per 2.3-10 acres) refer to plan text

THE TULALIP INDIAN RESERVATION
Snohomish County, Washington State

FIGURE 8-1
COMPREHENSIVE PLAN LAND USE



The Tulalip
Indian Reservation

COMPREHENSIVE PLAN - TRUST LANDS MAP

**FIGURE 8-2
OWNERSHIP**

Snohomish County, Washington State 1993

Where densities have been assigned to land use areas, the lower density assigned represents the plan's recommendation for zoning to initially implement the plan. The zones established by the initial action may be modified over the life of the plan at the discretion of the Tulalip Board of Directors (hereinafter "the Board") through a rezone process. The rezone process may be initiated by the Board to further Tribal economic, social, health and environmental goals, or may be initiated by individual property owners. The Board will review each rezone request on a case-by-case basis to determine its consistency with the goals, objectives, and policies of this plan.

Residential areas that border other land use categories should be zoned or otherwise buffered to provide an appropriate transition zone between the two different uses. For example, one dwelling unit (DU) per 10 acre Residential zoning might adjoin Forestry areas to provide a transition in land uses, where as permitted density could increase from 1 DU per 2.3 acres and up to multiple housing, as one moves further into the Residential area.

Residential use in areas designated as Sensitive Lands must be carefully managed to prevent environmental degradation or hazardous consequences such as landslides. For instance, a high demand and high price accompany waterfront and cliff top home sites, however, buildings, docks, bulkheads, and the clearing of cliff tops and faces for views disrupt the stability and natural processes associated with these fringe environments. Residential use and density must be acceptably integrated with the important natural features of the Reservation to preserve the desirability and function of these areas. Likewise, roads and utilities must be located and improved where environmentally, economically, and politically feasible. The following is a clockwise description of the Reservation Residential areas beginning in the southeast corner along Quilceda Road.

SUBURBAN

The Quilceda neighborhood is a predominantly Suburban low density area between Marine Drive and the proposed Business Park. Utilities are limited and nearly all homes are on septic systems. Shallow wells are subject to potential contamination. Maximum allowable density should be limited to 2 dwelling units per acre until adequate utility services and road improvements can be provided.

The Suburban area on the water side of Marine Drive from Quilceda Creek to Meridian Avenue could be developed up to 2 dwelling units per acre where good perc conditions for septic systems are found, provided that adequate water supply is available. However, for environmental protection the shoreline should be buffered a minimum of 100 feet inland from high water allowing only narrow access where necessary from Quilceda Creek to the eastern side of Priest Point. To implement the comprehensive plan, zoning in this area should be Suburban 2 dwelling units per acre. Once the area is served by water and sewer, 4 dwelling units per acre may be allowed by the Board on a case-by-case basis based on a review of environmental impacts.

Priest Point and Potlatch Beach are highly desirable Suburban living areas that may be developed to the extent that adequate services can be provided. Care must be taken when siting structures to maintain the view enjoyed by neighboring home sites. No further development should occur behind the spit at lower Priest Point for environmental reasons. To ensure that no further development occurs behind the spit at lower Priest Point, zoning in this area should reflect the plan's policy to limit new development in the area behind the spit. The top of the sea cliff in these areas should be maintained with as much natural vegetation intact as practical. New homes should be set back a minimum of 50 feet from the cliff top; 100 feet or more in areas of extreme slide hazard. Clear cutting the majority of the cliff top of any individual land parcel should not be permitted. The scenic cliff between Priest Point and Mission Beach should be preserved as much as possible. The Department of Community and Economic Development is currently preparing a plan to provide sewer service to the Priest Point and Potlatch Beach area. To implement the comprehensive plan, zoning in the Priest Point and Potlatch Beach areas should be Suburban 2 dwelling units per acre. Up to 4 dwelling units per acre may be allowed by the Board on a case-by-case basis based on a review of existing development patterns, the availability of water service, and a review of environmental impacts.

RESIDENTIAL ESTATE

To the west is the subdivision known as "Marysville West" which is fully serviced and non-subdividable. The adjacent Rainwater Road (19th Street) vicinity is not presently serviced with water and sewer and is characterized by poorly drained soils and must be maintained at low density under these conditions. To implement the comprehensive plan, this area should be zoned to allow 1 dwelling unit per 5 acres. Up to 2 dwelling units per acre may be allowed on a case-by-case basis by the Board based on a review of environmental impacts. Along the base of the eastern most ridge of the Reservation is Maplewood Road. The steep slopes of the ridge and wet areas at the foot of the ridge limit the availability of suitable home sites in this area. To implement the comprehensive plan, the area should be zoned to allow 1 dwelling unit per 5 acres. Up to 2 dwelling units per acre may be allowed on a case-by-case basis by the Board based on a review of soil suitability, and environmental impacts.

The Residential Estate areas north of Marine Drive between Maplewood Road and 62nd Street surrounding the Battle Creek Golf Course should be maintained in low density Residential use of approximately 1 dwelling unit per 5 acres. These are rural suburban neighborhoods with no improved services in most instances. Up to 2 dwelling unit per acre may be allowed by the Board in this area on a case-by-case basis once transportation and utility services are improved, and based on a review of environmental impacts.

RURAL

Residential areas adjacent to forestry areas should remain low density to serve as a transition zone between resource lands and developed areas. Zoning in these areas should be Rural 1 dwelling unit per 10 acres. Up to one dwelling unit per 2.3 acres may be allowed by the Board of Directors based on available utilities, existing development, and environmentally sensitive areas.

The coastal Residential areas north of the Hermosa Point area to the northwest corner of the Reservation south of McKees' beach vary in housing density. The beach front communities of Tulalip Shores, Spee-Bi-Dah, Tulare and Sunny Shores are all tightly compacted along the water, while lots are much larger along the cliff tops. Development should decrease in density and increase in lot size, as one moves from the shoreline toward the interior of the Reservation. To implement the plan, zoning in this area should be Rural 1 dwelling unit per 10 acres. For areas in and adjacent to established, densely populated residential areas, up to 1 dwelling unit per acre may be allowed by the Board on a case-by-case basis based on a review of utilities, existing development patterns, and environmentally sensitive areas. For less developed areas, up to 1 dwelling unit per 2.3 acres may be allowed.

The Residential areas along the north central border of the Reservation are suitable for low density development as required, based on site suitability and the availability of services. Few Tribal members presently live in this area, but it may be developed in the future for that purpose; especially on Tribal property located near John Sam Lake. However, lake resources should be carefully managed to prevent degradation or water pollution. To implement this plan, zoning in this area should be Rural one dwelling per 10 acres. Up to one dwelling unit per 5 acres may be allowed by the Board on a case-by-case basis within established rural areas containing large lots. Up to 1 dwelling unit per acre may be allowed in areas that are adjacent to more densely developed areas, based on a review of existing development patterns, transportation systems, and a review of environmental impacts.

TULALIP BAY AREA

The Tulalip Bay vicinity can expect to see heavy development, varying densities, and diverse uses. This includes multiple family housing such as apartments, condominiums and institutional housing. In addition, commercial activities would not be out of place, especially if associated with the Marina. In light of the development pressure, several Tulalip Bay features must be protected. A portion of the hill above and adjacent to Mission Cemetery should be kept park-like; offering views, natural surroundings and a peaceful contemplative setting for Tribal use. Access to Mission Beach must be maintained. The large central sand spit in the Bay should be kept natural and free of encroachment. Water access and boating facilities should be of high priority. Docks and bulkheads must be regulated to maintain tideland access and allow set-net fisheries use. Both the stream corridors of Tulalip and Battle (Mission) Creeks should be well buffered and protected,

providing space for a future recreational trail network along the creeks into the interior Reservation. Marine-oriented uses should have priority where appropriate. A Tulalip Bay subarea plan shall be developed to meet the needs of the community. Zoning in the Tulalip Bay area will reflect recommendations contained in the subarea plan.

PLANNED UNIT DEVELOPMENTS

The Board of Directors may approve Planned Unit Developments containing apartments or lots as small as 7,200 square feet (with sewer) for affordable housing within all Primary and Secondary Forestry, Commercial, Industrial, Rural Agriculture, Recreation, and all residential designations on the Reservation.

3. MIXED RESIDENTIAL/COMMERCIAL

A small portion of land (about 25 acres) south of Marine Drive on both sides of the mouth of Sturgeon Creek is designated as Mixed Residential/Commercial. This was done to incorporate the activities of a small boat yard, souvenir and gift shop and a wood carving artist which have all operated for some time with minimal disturbance to the surrounding neighborhood. Future owner/operators will be allowed to continue similar activities so long as there is no disturbance or significant pollution discharge. These businesses should provide native growth creek side buffers a minimum of 50 feet wide along the banks where water access has not been established or is necessary.

Additional areas designated as Mixed Residential/Commercial include the north half of the N.W. quarter of Section 1, T 30 N, R 4 E. known as the Marysville Receiver Site. The Tribes have established their cable TV satellite at this location and it is anticipated that neighborhood shopping services will develop here. The designated area contains about 80 acres and the Tribes hope to establish additional housing there.

The Tulalip Tribes may wish to establish additional low bank marine and deep water moorage access along the coast for Commercial and/or Residential purposes. This could occur without a planning conflict anywhere Tribally owned properties might become suitable for commercial marine access.

The following areas described are shown in "bubbles" on the land use map to indicate a general location rather than exact boundaries.

An area of about 150 acres adjacent to Tulalip Bay is intended for Mixed Residential/Commercial land use. This highly versatile and desirable area includes the Tribes' Marina, St. Anne's church, Tribal lease property and Tribal housing projects. At the time of writing, several development projects are being considered in this area

demanding the greatest flexibility in land use planning. Eventually a Bay development sub-area plan will be created and address the area needs in more detail.

A small Mixed Residential/Commercial area is tentatively sited at the 64th Street turnoff to the Tribal center area. The exact use remains to be determined, but the intersection of Marine Drive and 64th Street would allow this activity with no negative traffic impacts and it would appear to serve an existing need of the immediate community.

The last Mixed Residential/Commercial area is in the vicinity of Meridian Ave., Marine Drive and 2nd Avenue. This approximate 40 acre area is intended to provide small scale neighborhood services. Several stores have operated here and should continue to do so.

The Tulalip Board of Directors may consider additional small scale neighborhood commercial and/or office uses in residential areas along Marine Drive and other heavily travelled arterials where commercial areas already exist and adequate utilities are available.

4. COMMERCIAL

A Commercial strip of land has been designated along the west side of Interstate Five (I-5) from the northern Reservation border south to 116th Street N.E. This area includes the eastern one-quarter of Sections 5 and 8. In addition, that portion of the S.E. quarter of Section 8, T 30 N, R 5 E. lying immediately north of the Boeing Test Site leasehold is also designated Commercial. Although the map shows 296 acres of Commercial land in the N.E. corner of the Reservation, I-5 and road right-of-ways reduce the usable Commercial designated land to approximately 240 acres. The Commercial designation of this area along the freeway resulted from its location/exposure, the proximity of the I-5 Interchange at 116th Street N.E., and the potential for an Interchange at Stimson Crossing.

Immediately south of the Conservation area at 88th Street N.E. and adjacent to I-5 is a small Commercial zone of approximately 20 usable acres straddling the tributary to Quilceda Creek. This is intended for freeway service-type businesses upon completion of the 88th Street N.E./Interstate 5 Interchange.

All of the uplands (dry land) on-Reservation that lie south and east of Quilceda Creek adjacent to I-5 are designated for Commercial land use. This area contains about 140 acres and has always been considered as the main entrance to the Tulalip Reservation. The creek, saltwater marsh lands and freeway provide natural borders for land use. The aquatic features must be heavily buffered and protected by minimum 50 foot setbacks and maintenance of native growth protection areas. The area is serviced by Marysville sewer and water, and natural gas. It has good freeway visibility and a well thought out traffic plan with control signals.

5. INDUSTRIAL

The majority of the 2,000 plus acres of former military reserve (Boeing Test Site) located at the eastern edge of the Reservation is designated for Industrial use. The development of business activities and leasehold property will provide jobs and Tribal income. The Tribes intend to develop and manage a multi-purpose business park on lands not leased to Boeing. It contains several unique wildlife and natural resource features and will be left undisturbed. Also a strip along the western most edge of the Boeing Test Site has been designated for Forestry use and will remain undeveloped. The steep, forested hillside within this zone should be preserved and managed as a timber unit and industrial buffer to provide visual and sound screening. Industrial and business park uses will also be buffered by native growth protection areas established on the business park development plan.

The southeast corner of the Reservation includes an area known as "Big Flats". This "island" is bounded by Ebey Slough to the north, I-5 to the east, Steamboat Slough to the south, and Possession Sound to the west. The eastern half of this parcel has been designated Industrial for future use upon completion of restoration activities on the approximately 150 acres of old landfill contained therein. The proximity and access to land and water transportation routes enhances a wide range of industrial uses. Zoning in this area should reflect the Tulalip Tribes policy to encourage industrial development and other compatible land uses consistent with this plan and discourage incompatible land uses.

6. RURAL/AGRICULTURAL

In the northeast corner of the Reservation, the predominant land use is low density Rural/Agriculture. This area includes several small farms and ranchettes. Approximately 1,640 acres (much of map Sections 5, 6, 7 and 8, Township 30, Range 5 East) has been designated for this purpose. Although the area contains several smaller lots, further subdivision into lots less than 10 acres is not recommended. The area has a high water table, poor soil permeability, no water or sewer service, narrow roads with deep ditches and is poorly suited for further development. Zoning in this area should be one dwelling unit per 10 acres. Up to 1 dwelling unit per 5 acres may be allowed by the Board based on a review of environmental impacts, especially with respect to the high water table in the area.

7. FORESTRY

The Forestry land use designation comprises the second largest land use category on-Reservation. Natural resource management has historically been the second most important use of Reservation lands and will continue to be extremely important in the future. The biggest threat to forestry lands in the coming years is urban sprawl. The demand for more rural tracts appears insatiable. Forest lands that are lost are never replaced. Therefore, an extensive review of viable forest land on-Reservation has occurred, and only the most appropriate and feasible lands have been designated for this purpose.

A total of approximately 6496 acres is designated Forestry. Of this total acreage, over 25% is not harvestable since the trees are on steep slopes, unstable soils, wildlife and fisheries habitat, wellhead protection and water diversion areas, spiritual sites, and Sensitive Lands along stream, lake and wetland borders, or because of conservation needs and other considerations. Forestry areas are virtually devoid of any land use improvements or residential use.

One very important Tribal goal is to maintain the undeveloped interior heartland of the Reservation for natural resource management use. The primary contiguous forestry zone, which includes the hatchery and wellhead protection areas, is considered "closed" to development or any use other than natural resource management. Natural resource management includes silviculture, groundwater and surface water supply, watershed protection, sand and gravel extraction, fisheries and wildlife, passive recreation, ceremonial use, conservation and open space. Zoning in the primary forestry zones should be limited to 1 dwelling unit per 80 acres.

The secondary forestry zones, which include both the area designated to the northwest of the Port Susan Camping Club and the forestry parcels contiguous to Turk Road in the lower Battle Creek Basin are intended for the same purposes as the primary forestry zone. However, some low density residential use averaging 1 dwelling unit per 20 acre parcel may be permitted. Every effort possible must be made to preserve the forestry designated zones and prevent the gradual loss of the non-renewable land base used for natural resource management. The Tulalip Tribes will always have a lasting tie to the forestry lands and all that they provide.

8. RECREATION

Three large land areas have been designated exclusively for Recreation. They include the 160 acre Battle Creek Golf Course in the S.E. corner of Section 25, T 30 N, R 4 E, the proposed 210 acre Tulalip Golf Course in Section 4, T 30 N, R 4 E, and the approximate 900 acre Port Susan Camping Club in the northwest corner of the Reservation. Only temporary and/or seasonal activities are permitted in Recreation areas. Development has been constrained to perpetuate the Recreation land use. Recreational areas must always be provided for the Community. The goal is to provide for quality recreation while the choice still exists.

9. CONSERVATION

The western half of "Big Flats" is wetlands, as are portions of the adjacent Quilceda Creek and Ebey Slough flats. They have been given a Conservation designation. These wetlands include critical wildlife and fisheries habitat and are probably the only area on the Reservation that has never been altered by human action.

An approximately 100-acre parcel just north of Spee-Bi-Dah, on the west side of Marine Drive has been designated Conservation. Also, Ross Lake and a 400 foot buffer area around Ross Lake has been designated as Conservation.

Another approximately 37 acre conservation area is designated in the N.E. quarter of section 20, T 30 N, R 5 E. lying east of the tributary to Quilceda Creek.

Zoning for Conservation areas should allow for one dwelling unit per 80 acres.

CHAPTER 9: CIRCULATION

A. TULALIP ROAD SYSTEM

Two major through routes on the Reservation, Marine Drive and Firetrail Road (140th St. NE), carry the majority of the traffic generated on and north of the Reservation. Marine Drive serves the southern portion of the Reservation, the tribal facilities in the Tulalip Bay area, the major Indian residential communities, and the other residential communities along the coast. Traffic on Marine Drive is heaviest in the commercial area near the 4th Street Interchange, where tribal Bingo and Casino facilities, a motel, several restaurants, and other commercial enterprises are located. Firetrail Road serves residential communities in the northern portion of the Reservation and a substantial residential community in the Seven Lakes Area north of the Reservation.

Tribal facility developments and several tribal housing developments near Tulalip Bay and at Quilceda Road (27th Ave. NE) will increase traffic demands on Marine Drive in the near future. Traffic on 140th NE is expected to increase as well with further residential development in near Kayak Point and the Seven Lakes Area. The new 88th Street Interchange and the extension of 27th Avenue to 116th will provide access to the planned Business Park and allow that area to develop. Anticipated future traffic volumes on the Reservation are based on population projections for the year 2010 (1990 and 1993 Tulalip Reservation Transportation Plans).

B. TRANSPORTATION PLANNING

Bell-Walker Engineers, Inc., developed a transportation plan (Oct. 1990) for the Reservation, which focused primarily on the east portion of the Reservation, because of the anticipated commercial and industrial development in that area. More recently the BIA contracted ASCG, Inc. to prepare a Transportation Plan focusing on tribal road system needs not addressed in the Bell Walker study. Many of the findings of the Bell-Walker study have been integrated into the new Transportation Plan.

C. TRANSPORTATION SYSTEM IMPROVEMENTS

Section C. is reprinted from the 1993 Tulalip Reservation Transportation Plan (BIA Plan).

Scheduled Transportation Improvements

Several transportation projects have been scheduled by the BIA, County, and State over the next several years. Scheduled projects, listed in Table 1-1, are either under construction or

programmed for future funding. As such, a relative need analysis has not been performed for them. Rather, it is assumed that they have top priority for implementation.

TABLE 9-1
SCHEDULED TRANSPORTATION IMPROVEMENTS

Project	Responsibility	Construction Date
88th/I-5 Interchange	BIA, State, Co., City	FY 93
Firetrail Rd., 56th Ave. N.W.-Marine	County	FY 91
Firetrail Rd., 56th Ave. N.W.-23rd Ave. N.E.	County	FY 91
Marine Dr., 19th Ave. N.W.-64th St. N.W.	County	FY 96-97
Quilceda Cr. Bridge, 88th St. N.E.	County	FY 94-95
Firetrail Rd., 56th Ave. N.W.-23rd Ave. N.E.	County	FY 94-95
I-5, Marysville (Bridge Overlay)	State	FY 94
I-5, 4th St./SR 528 Intrchnng. (Ramps, Signals)	State	FY 92
I-5, 116th St. N.E. and 172nd St. N.E. (ramp surface)	State	FY 92

Source: BIA, Unpublished data
Snohomish County, Unpublished data
State of Washington, Unpublished data

Traffic Safety and Betterment Projects

As identified in the Tulalip Tribes Transportation Plan (October 1990) and based on findings and tribal development plans determined by this planning effort, 19 short-term projects have been identified for the Tulalip Reservation--3 traffic safety projects and 16 betterment projects. These projects, summarized in Table 1-2, call for a total of \$30,150,975 in construction, of which \$3,555,875 is the responsibility of the BIA.

In addition, changes in the existing BIA Public Road System are recommended, including the addition of 2.225 miles of road. Roads to be added to the system include:

Totem Beach Road, Sections 40 and 70 (0.45 mile added to BIA
Route 52)
59th Street N.W. (0.2 mile)
Jack George Drive (0.2 mile)
Joseph Charles Jr. Loop Road (0.2 mile)
Joseph Charles Jr. Drive (0.025 mile)
76th Place N.W. (0.2 mile)
78th Street N.W. (0.25 mile)
42nd Drive N.W. (0.15 mile)
Walter Moses Jr. Drive (0.15 mile)
28th Avenue N.W. (0.125 mile)
Levi Lamont Road (0.05 mile)
Ed Williams Road (0.025 mile)
81st Street N.E. (0.2 mile, including 2 unnamed cul-de-sacs)

TABLE 9-2
ROAD PROJECTS

	Length	Responsibility	Estimated Cost
<u>Traffic Safety:</u>			
1. Traffic Signing		BIA	\$ 2,800
2. Street Identification Signing		BIA	\$ 1,575
3. Waterworks Rd./Marine Dr. Intersection: Signalization		Other	\$ 75,000
<u>Betterment:</u>			
4. Walter Moses Jr. Dr.: Reconstruction	0.15 mi.	BIA	\$ 38,400
5. Totem Beach Road: Reconstruction	0.4 mi.	BIA	\$ 159,500
6. 78th St. N.W.: Reconstruction	0.25 mi.	BIA	\$ 57,700
7. Totem Beach Road (Section 40): Reconstruction	0.05 mi.	BIA	\$ 28,200
8. 36th Ave. N.W. Improvements	0.1 mi.	BIA/Co.	\$ 27,900
9. 59th St. N.W.: Widening	0.1 mi.	BIA	\$ 37,600
10. 76th Place N.W.: Reconstruction	0.2 mi.	BIA	\$ 46,100

CHAPTER 9: CIRCULATION

11. Waterworks Road Reconstruction	0.3 mi.	BIA/Co.	\$ 151,200
12. Marine Dr. (19th Ave- Arcadia): Reconstruction	5.5 mi.	BIA/Co.	\$7,405,000
13. 140th St. N.E./ N.W.: Widening	6.0 mi.	County	\$4,665,000
14. 27th Ave. N.E. (Marine Dr.-88th St.): Widening	1.4 mi.	BIA/Co.	\$3,014,000
15. 27th Ave. N.E. Extension (88th St.- 116th St.)	1.75 mi.	Tribe/Others	\$5,895,000
16. 4th St. Interchange Bypass	0.64 mi.	Tribe/Others	\$2,108,000
17. 88th St. N.E. Extension (I-5 - 19th Ave. N.E.)	1.25 mi.	BIA/Tribe	\$2,886,000
18. 116th St. N.E.: Reconstruction	0.4 mi.	Tribe/BIA/Co.	\$ 322,000
19. 19th Ave. N.E. (Marine Dr.- 88th St.): Reconstruction	1.3 mi.	County	\$3,230,000

A summary of the projects listed in Table 1-2 follows:

- Traffic Signing. Field inspection indicated several locations where traffic signing needed to be added or replaced, the majority of which were stop signs at intersections of higher volume roads. A total of 16 signs would be required. Total estimated cost of this project would be \$2,800.
- Street Identification Signing. Several of the streets on the reservation are unnamed, particularly in residential areas. Under this project, street identification signs would be placed on Jack George Drive, Joseph Charles Jr. Loop Road, Joseph Charles Jr. Place, 75th

Place N.W., 42nd Avenue N.W., Levi Lamont Road, Gross Drive, 76th Street N.W., and 78th Street N.W. Total estimated cost of this project would be \$1,575.

- . Waterworks Road/Marine Drive Intersection: Signalization. With construction of the new fire station off Waterworks Road, a signal will be required at the intersection with Marine Drive. Total estimated cost of this project would be \$75,000.
- . Walter Moses Jr. Drive: Reconstruction. Walter Moses Jr. Drive, which serves seven homes, is currently a 0.15-mile long 20- to 22-foot wide paved roadway in fair to very poor condition. Under this project, the road base would be reconstructed in those areas that have potholes or where the paving is disintegrating, and the entire roadway would be overlaid to add structural strength. Total estimated cost of this project would be \$38,400.
- . Totem Beach Road (CR 60880): Reconstruction. The 0.4-mile section of this road north of the tribal center to the senior center is a 20-foot wide paved road in poor condition. The roadway also provides access to the marina. Under this project, the road would be reconstructed to a 28-foot wide road, with 22 feet of paved travelway and 3-foot paved shoulders. Total estimated cost of this project would be \$159,500.
- . 78th Street N.W.: Reconstruction. Currently, this 0.25 mile long paved roadway is in poor condition. Since the road provides access to the health clinic and the alcohol treatment center, it would be reconstructed to a 24-foot wide roadway with 20 feet of paved travelway and 2-foot paved shoulders. Total estimated cost of this project would be \$57,700.
- . Totem Beach Road: Reconstruction. Currently, the 0.05-mile long section of Totem Beach Road from the Fisheries Building to BIA Route 52 is a 16-foot wide paved road in poor condition. Under this project, the roadway would be reconstructed to a 36-foot wide road tapered to the dam crossing (Design Standard No. 7) to match 78th Street N.W. Total estimated cost of the project would be \$28,200.
- . 36th Avenue N.W. (CR 60810) Improvements. The 0.1-mile long section of 36th Avenue N.W. from near the Totem Beach Road intersection is in poor condition with subgrade failure in the southbound lane and pavement ravelling along the northbound shoulder. Under this project, the road, which serves the elementary school, would be rehabilitated and overlaid to the existing width. The Marine Drive intersection would be improved to eliminate sight distance problems. Total estimated cost of this project would be \$27,900.
- . 59th Street N.W.: Widening. The western 0.1 mile of this street is in poor condition. Under this project, the road would be widened from 16 feet to 28 feet, with 22 feet of paved travelway and 3-foot paved shoulders. Total estimated cost of this project would be \$37,600.

CHAPTER 9: CIRCULATION

- . 76th Place N.W.. This 0.2-mile long road is 15 feet wide, paved, and in poor condition. Under this project, the road would be reconstructed to a 24-foot wide roadway, with 20 feet of paved travelway and 2-foot shoulders (BIA Design Standard No. 19). Total estimated cost of the project would be \$46,100.
- . Waterworks Road: Reconstruction. Waterworks Road serves a new fire station and a new tribal subdivision with 81 units. This project would widen and pave the first 0.3 mile north of Marine Drive to allow paved access to both entrances to the subdivision. The roadway would be 34 feet wide with 22 feet of travelway and 6-foot paved shoulders for pedestrian and bicycle use. Total estimated cost of the project would be \$151,200.
- . Marine Drive (CR 96820): Reconstruction. The narrow travelway and lack of shoulders combined with sight distance problems on Marine Drive from 19th Avenue to Arcadia create hazardous conditions for pedestrians and bicyclists in particular. Under this project, approximately 5.5 miles of roadway would be widened to 30 feet, with 12-foot paved travelway and 8-foot paved shoulders. Total estimated cost of this project would be \$7,405,000.
- . 140th Street N.E./N.W.: Widening. Currently, 140th Street (Firetrail Road) from 56th Avenue N.E. to the I-5 frontage road is an approximately 6-mile long, 20- to 23-foot wide paved and gravel roadway which, with the exception of one section, is in fair to poor condition. Under this project, the roadway would be widened and paved to a width of 36 feet, with 12-foot travelway and 6-foot paved shoulders. Total estimated cost of the project would be \$4,665,000.
- . 27th Avenue N.E. (Marine Drive to 88th Street): Widening. Currently, 27th Avenue N.E. (Quilceda) is a 28-foot wide paved road in poor condition. The road provides access to a HUD housing development. Under this project, the 1.4-mile long section of the roadway from Marine Drive north to 88th Street would be widened to 36 feet, with 24-foot paved travelway and 6-foot paved shoulders. Total estimated cost of this project would be \$3,014,000.
- . 27th Avenue N.E. (88th Street to 116th Street) Extension. As part of a street system for the proposed business park to serve planned activities and connect to existing and proposed development within the Tulalip area, under this project, 27th Avenue N.E. would be extended north from 88th Street to connect to 116th Street and the 116th Street/I-5 interchange. The new 1.75-mile long, four-lane street would be 40-48 feet wide. Total estimated cost of this project would be \$3,555,000.
- . 4th Street Interchange Bypass (31st and 33rd Avenues N.E. Extensions and 60th Street N.E. Construction). Increasing traffic congestion at the 4th Street interchange has had an adverse impact on traffic circulation and safety and on commercial development. Under this project, a bypass road system would be constructed to an I-5 underpass and interface with First

Street in Marysville and SR 559; 31st Avenue N.E. and 33rd Avenue N.E. would be extended south, and 60th Street N.E. would be constructed connecting 31st and 33rd to the I-5 underpass. The two-lane roadways would be 36 feet wide with 24 feet of paved travelway and 6-foot wide paved shoulders. Total estimated cost of the project would be \$2,108,000.

- . 88th Street N.E. (I-5 to 19th Avenue N.E.). In conjunction with development of the proposed business park, approximately 1.25 miles of 88th Street N.E. would be reconstructed to four lanes and extended from the proposed I-5 interchange to 19th Avenue N.E. to provide direct access to the park. Total estimated cost of the project would be \$2,886,000.
- . 116th Street N.E. (I-5 to 27th Avenue N.E.). In conjunction with development of the proposed business park, 126th Street N.E. would be reconstructed to five lanes (50-60 feet wide). The new 0.4-mile long street will connect the I-5 interchange with 27th Avenue N.E. Total estimated cost of this project would be \$322,000.
- . 19th Avenue N.E. (Marine Drive to 88th Street): Reconstruction. Currently, 19th Avenue N.E. is a 22- to 24-foot wide paved roadway in fair to poor condition. Under this project, the 1.3-mile long section from Marine Drive north to 88th Street would be reconstructed to a two-lane, 36-foot wide roadway, with 20 feet of paved travelway and 6-foot paved shoulders. Total estimated cost of this project would be \$3,230,000.

Based on the relative need analysis, which is a benefit-cost evaluation, the above projects scored in the following order:

- . Marine Drive Reconstruction (12177)
- . 4th Street Interchange Bypass (12177)
- . 140th St. N.E./N.W. Widening (6962)
- . Traffic Signing (5750)
- . Waterworks Road/Marine Drive Intersection (3373)
- . 88th Street N.E. (I-5 to 19th Avenue N.E.) (2534)
- . 27th Avenue N.E. (88th-116th St.) (2534).
- . 27th Avenue N.E. (Marine Dr. to 88th St.) (1863)
- . 116th Street N.E. Reconstruction (1264)
- . Street Identification Signing (1210)
- . Waterworks Road Reconstruction (1121)
- . 19th Avenue N.E. Reconstruction (1064)
- . 59th Street Widening (407)
- . Totem Beach Road Reconstruction (396)
- . 36th Avenue N.W. Improvements (396)
- . 76th Place N.W. Reconstruction (242)
- . 78th Street N.W. Reconstruction (238)

- . Walter Moses Jr. Drive Reconstruction (206)
- . Totem Beach Road Reconstruction (North Segment) (206)

After discussion with tribal officials during the review of the plan, it was determined that the top project priorities are as follows:

- . 88th Street N.E. (I-5 to 27th Street N.E.)
- . 4th Street Interchange Bypass (60th Street N.E., 31st Avenue N.E. Extension and 33rd Avenue N.E. Extension)
- . 27th Avenue N.E. (88th Street N.E. to 116th Street N.E.)
- . 116th Street N.E. Reconstruction

D. RECOMMENDATIONS

Short-term road improvement priorities are the 88th Street N.E. area which will support the development of the tribal business park, the 4th Street Interchange Bypass, and projects within the vicinity of tribal headquarters. Of prime importance is the construction of the 88th Street N.E. interchange on I-5 followed by additional improvements to roads in and near the business park area.

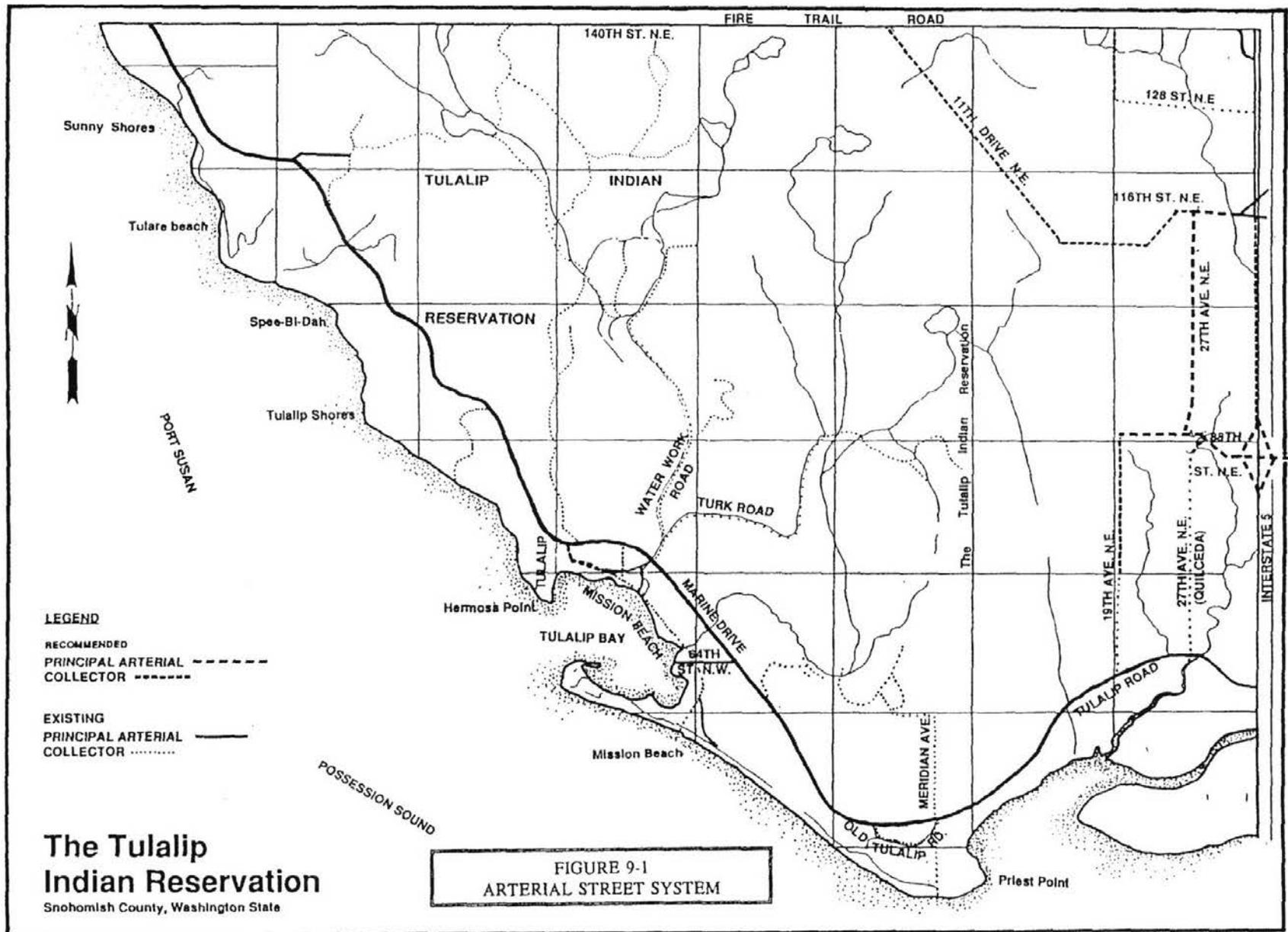
Projects in the vicinity of tribal headquarters include improvements to Waterworks Road, rehabilitation of several deteriorating roads, and signing both for street identification and traffic control. A high priority is the widening of Marine Drive to improve automobile traffic as well as allowing bicyclists and pedestrians space to use this roadway safely.

With further anticipated development north of the Reservation, a diamond interchange at Stimson's Crossing/136th Street N.E. should be evaluated to alleviate potential future traffic congestion at 116th Street N.E. and to route off-Reservation traffic along the perimeter of the Reservation, rather than across Reservation roads. It is further recommended that the frontage road between 116th Street NE and 136th Street NE be vacated with land being returned to the Washington State Department of Transportation on the east and abutting property owners on the west. This will force improved circulation through the interchanges at 88th, 116th and 136th Streets and along 27th Avenue NE, (Quilceda Road).

A diagonal road connecting 116th Street N.E. with future residential development at the top of the hill to the northwest is proposed. The existing right-of-way runs to the Tribally owned Tulalip Telecommunications receiver site. However, this road should not be connected to 140th Street N.E. until the new interchange at 136th, or an alternate route to the interstate is found to prevent the Seven Lakes Area traffic from crossing the Reservation enroute to the 116th Street interchange.

The Tulalip Tribes have recommended to the Puget Sound Council of Governments that an increased capacity study be done for Interstate 5 extending from Steamboat Slough north to 176th Street NE. By the year 2010 two way traffic is expected to increase from 73,500 (1988) to 140,000 vehicles per day from Marysville/Tulalip Exit South, and increase from 60,300 (1988) to 120,000 vehicle per day south of 88th Street NE and 110,000 vehicles per day south of 116th Street NE and 100,000 vehicles per day north of 116th Street NE.

This represents a nearly 100 percent increase in traffic on Interstate 5 adjacent the Tulalip Tribes Reservation. At a minimum two lanes should be added in each direction on Interstate 5 with one of the lanes dedicated to High Occupancy Vehicles.



CHAPTER 10: UTILITIES

The Tulalip Reservation's location on the Interstate 5 Canadian-American trade corridor and on the edge of the Everett-Seattle metropolitan growth boundary will result in many pressures and challenges and in many opportunities for the economic growth of the Reservation and its people. This growth opportunity, which will play a decisive role in the Tulalip Tribe's ability to exercise its self-determination, will require a utilities infrastructure on which to build and the public services required to maintain this higher level of community development. Water and sewer improvements are the most critical components in this growth equation.

This section includes an overview of existing and projected water, sewer, solid waste, electricity, gas, telephone, cable and other utilities. The Tulalip Tribes directly provides water and sewer service to many residents on the Reservation and is the only provider of cable television service.

A. WATER SERVICE

1. TULALIP WATER SYSTEM

The Tulalip Tribes water system was constructed by the Indian Health Service (IHS) in 1975 and serves the Tulalip Bay area, Marine Drive, and Meridian, Maplewood and Quilceda roads (Figure 10-1). The Tulalip Water System serves the tribal community, tribal lease lands and some private non-tribal properties. By 1994, with the addition of three new tribal housing subdivisions the Tulalip system will have a total of approximately 1,100 connections. The Tribal system has four community wells located in near the northern end of Waterworks Road and two new wells near in the area of Waterworks Road and Marine Drive. The northern wellfield produces about 600 gallons per minute (gpm) and the pumps of the southern well field are set and sized to produce a total of 400 gpm. Daily consumption averages 300,000 gallons per day (gpd) for the year, while summer consumption averages 525,000 gpd with peaks of 775,000 gpd. The Tribal system has a 200,000 gallon storage reservoir near the north end of Waterworks Road and on Mission Hill there is a 150,000 gallon reservoir and a new 695,000 gallon reservoir. The Tribal system receives fluoride and chlorine treatment. The water from the older northern well field is mixed with the water from the south which corrects a mild hydrogen sulfide odor problem at this new wellfield.

2. CITY OF MARYSVILLE WATER SYSTEM

The City of Marysville supplies water to about 200 people located on the Reservation's Marysville West subdivision and it serves several businesses located near I-5. The City also provides water to the Boeing test facility through a separate transmission line and the City has a supply line at the northeastern edge of the Reservation (there are no service connections on the Reservation from that line). The City's lines and the Tribes' lines cross each other at Marysville West and the two systems have an emergency intertie connection.

3. SEVEN LAKES WATER ASSOCIATION

The Seven Lakes Water Association provides water service to several users on both sides of the northern boundary of the Reservation between 46th and 56th Avenue along Fire Trail Road.

4. SMALLER SYSTEMS AND SERVICE AREA AGREEMENTS

There are currently 75 small public water systems operating on the Reservation (Figure 10-1). The largest of these is the Port Susan system with over 400 full-time services and provision for an additional 400 permanent sites and 1,700 occasional users. Thirty of the remaining systems only serve two customers. Given the new federal regulations governing the operation of public water supply systems it is anticipated that a number of the smaller systems will fail to meet these new standards.

The Tulalip Tribes has designated the entire Reservation as their future service area. The Tribes may take over remote operation of a number of these small systems in the next several years. During 1992 and 1993 two moderate sized water systems (Indian Ridge and Tulalip Shores) approached the Tribes regarding possible takeover of their systems.

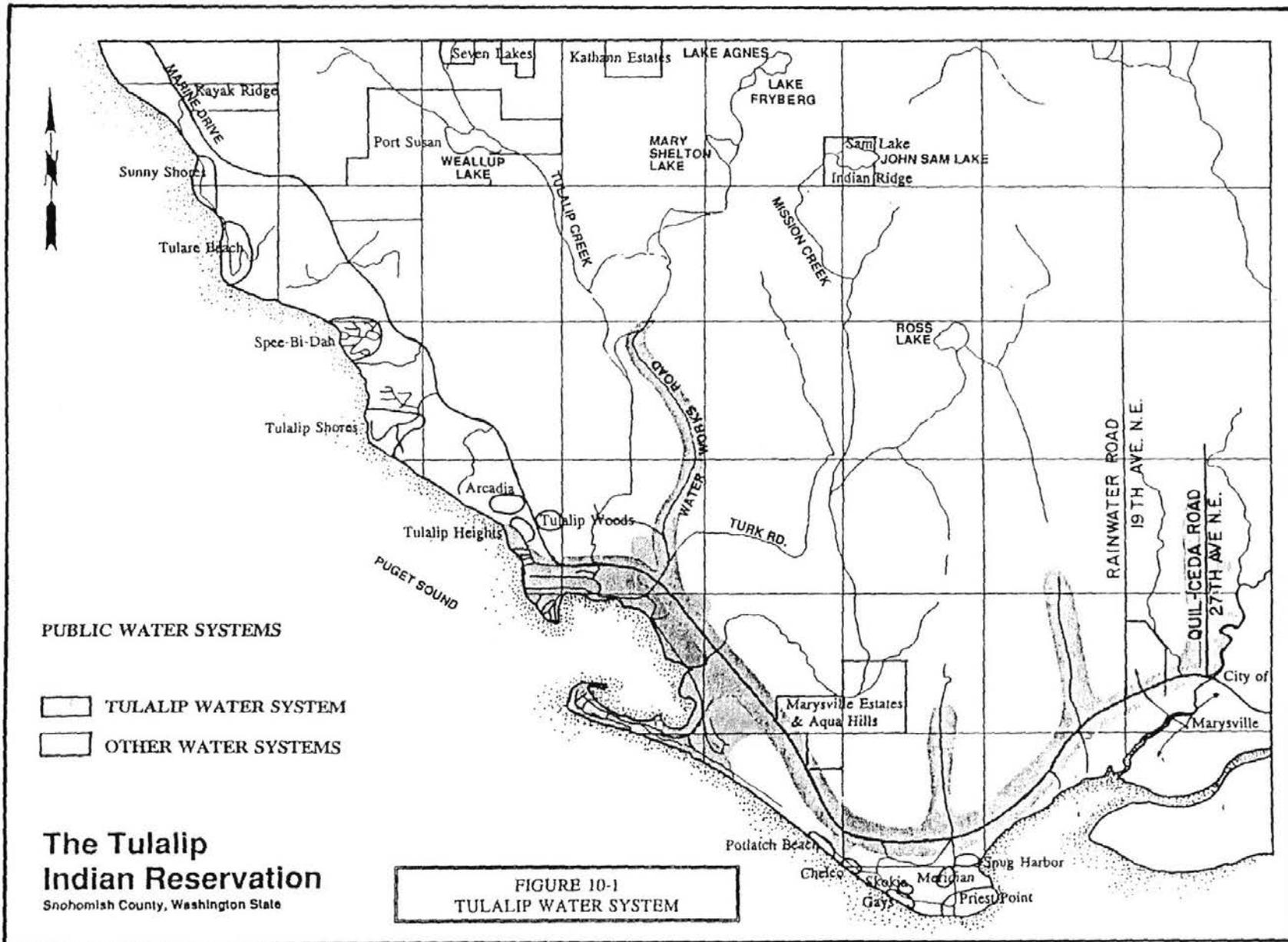
The Tulalip Tribes and Seven Lakes Water Association have a boundary agreement through which Seven Lakes Water Association provides service to new developments, if they are approved by the Tribes. No formal agreement has been signed yet with the City of Marysville but service area boundaries have been recognized by the City of Marysville and Snohomish County.

The Tulalip Tribes, the City of Marysville and Seven Lakes Water Association are participants in the North Snohomish County Coordinated Water System planning process and the North Snohomish County Water Utility Coordinating Committee. Participants are supposed to prepare complete water system plans when they reach 1,000 connections. The Tribes currently intend to prepare such a plan, on a voluntary basis, during 1993-94.

5. WATER SYSTEM PLANNING

In 1987 the Northwest Snohomish County Regional Water Study and Preliminary Assessment provided a regional water study and needs assessment. This study concluded that groundwater sources were insufficient for projected growth and that the only technically and financially feasible source of supply for the North County area is the City of Everett's Sultan River supply system.

In 1990 the Tulalip Tribes, under contract with James M. Montgomery Consulting Engineers Inc., completed their Abbreviated Water System Plan for the Reservation. This plan estimates water demand based on land use (end use analysis - build out by land use designation). The current water use for the entire Reservation is estimated to be 2.34 MGD and the plan projects 2.7 MGD by 1995 and 3.1 MGD by the year 2000. This growth will largely be the result of residential expansion from the Everett-Seattle metropolitan area and



large industrial/business/commercial park developments planned in the north Marysville area. The Tulalip Tribes is planning a Business Park on I-5 that would be fed by a new 88th Street I-5 Interchange. Other business parks are also being planned for the Marysville, Arlington and Northwest County planning subareas. This development, part of the impending Canadian-American trade corridor phenomenon, will increase the demand for housing on the Reservation.

6. WATER SYSTEM DEVELOPMENT

While Indian Health Service (IHS) water projects, which are based on Tribal housing needs, will provide some system improvements from groundwater sources, a major supply source is needed for planned growth and this source is not available on the Reservation. The western half of the Reservation can be served by groundwater but the eastern half will need another source of supply.

The Tulalip Tribes, the City of Marysville and the Snohomish County Public Utility District jointly financed the 30" transmission line constructed by the City of Marysville from the City of Everett's to the City of Marysville's system (19.8% 4MGD). Each party owns a portion of the water supply capacity. Tulalip's share of the water is to be wheeled to Reservation through the City of Marysville's existing water distribution system. Improvement in the ability of that system to wheel water to the Reservation is being negotiated with the City of Marysville.

The Tribes, Marysville and the PUD are also to work cooperatively on plans for a second line to supply regional water demand projections. This would likely involve construction of a transmission line to the Reservation and construction of a regional reservoir on the Reservation.

Until additional supply sources can be financed, growth on the Reservation will likely need to be served by individual well systems built to Tribal standards. The Tribes water utility will operate, maintain and own these remote systems until growth warrants connection to the Tribal water system.

A listing of future water projects would likely include the following:

- o Five year growth plan:
 - Connection to City of Marysville supply via negotiated, contractual share of line capacity.
 - Line extension two miles on Quilceda Road.
 - Reservoir north of Meridian or Maplewood Road and transmission lines to community water system.
 - Line extension two miles northwest of Tulalip Bay.
 - Case by case connections of remote systems to the Tulalip Water System.
 - Investigation of the possibility of phasing out a portion of the old Tribal well field and converting them to a multi-purpose secondary supply source for the hatchery and the Tulalip Water System.

- Development of water systems constructed by new subdivisions in remote areas.
- o Ten year growth plan:
 - Water main upsizing along Marine Drive to 12".
 - Participation in the planning of a second supply line from the City of Everett or construction of a water transmission line from City of Everett across Smith Island (depending on regional cooperation).
 - Water line extension to Turk road.
 - Development of water systems constructed by new subdivisions in remote areas and connection of same to larger Tribal systems as that becomes feasible.
- o Fifteen year growth plan:
 - Participation in the construction of a second supply line from the City of Everett.
 - Development of water systems constructed by new subdivisions in remote areas and connection of same to larger Tribal systems as that becomes feasible.
 - Water line extension northwest of Tulalip Bay.
- o Twenty year growth plan:
 - Development of water systems constructed by new subdivisions in remote areas and connection of same to larger Tribal systems as that becomes feasible.

7. FUNDING METHODS

- a. Grants: The Tulalip Water System was financed through Indian Health Service projects and through U.S. Housing & Urban Development Tribal housing projects. The Tribes will need to broaden their funding sources if the Tribal water utility is going to meet the obligations implied in claiming the entire Reservation as their future service area. Potential funding sources include: Farmers Home Administration, Washington Department of Health, U.S. Environmental Protection Agency, U.S. Housing and Urban Development funds for water connections to Tribal housing projects or for any water projects submitted (and selected) under the Community Development Block Grant program, and U.S. Economic Development Administration (EDA) funds for providing water service to EDA eligible projects such as the proposed I-5 Business Park.
- b. Utility Revenue Bonds: The Tulalip Tribes can issue utility revenue bonds to fund a portion of their water projects but the amount of funds necessary to warrant issuing bonds is beyond the scope of any anticipated water project during the 1990's.
- c. Loans: The Tulalip Tribes may borrow funds from private lending institutions for utility capital improvements when these improvements can be secured by the revenue to be generated by those improvements. The user connections to the system and rate payers on the system could pay the principal and interest charges involved in the loan. Lending institutions may also seek security for the loan from

the Bureau of Indian Affairs and or security in the form of Tribal lease land income.

The Tulalip Tribes may also borrow funds from the federal government under a variety of programs as low interest loans. These loans to be paid off through user charges to the benefiting ratepayers.

- d. User Development Charges - Capital Recovery Charges: Smaller line extensions could be financed through one-time connection charges and line extension agreements to individual users. The utility can build into these charges the costs of the actual line extension and the costs involved in replacing the capacity in the system that the user has filled through their connection to the system.
- e. Developer Constructed Improvements: New subdivisions will be connected to the Tulalip Water System or they will construct remote well systems to the Tribes standards and turn those systems over to the Tribes. The Tribes determines which means of service will be most cost effective the current and planned water users in the area. These improvements and systems will be financed by the developers.

Larger subdivisions to be connected to the Tulalip Water System may require system improvements in addition to the line extensions and capital improvement charges. Smaller subdivisions outside but near the current service area (where further development is anticipated) may warrant consideration of less expensive temporary remote systems which will be connected to the Tulalip Water System in several years.

8. WATER CONSERVATION

The Tulalip Water System is only partially metered. In the next few years the Tulalip Tribes will seek to meter the remaining unmetered residences on the Tribal water system and begin charging a metered rate for water use. Water conservation measures have been included in Tribal regulations and the Tulalip Water System is planning a water conservation program including installation of water conservation devices.

9. OTHER WATER USES ON THE RESERVATION

Significant uses of water on the Reservation, other than drinking water supplies, include agricultural applications and the water used in the operation of the Tulalip Salmon Hatchery.

The four square miles in the northeastern corner of the Reservation include agricultural lands, some of which are irrigated during the summer months using groundwater. Other small acreages and a golf course also use surface and/or groundwater to a limited extent for irrigation on the Reservation.

The Tulalip Tribes Salmon Hatchery and related facilities use large amounts of water for the rearing of about nine million salmon each year. The Tulalip Salmon Hatchery is located

at the juncture of the East and West Forks of Tulalip Creek, near the end of Waterworks Road. The Hatchery utilizes the waters of both Forks plus up to 550 gpm of groundwater drawn from a well which is located about one quarter of a mile north of the Hatchery. The current species mix and production poundage of the Hatchery and related facilities is calculated to utilize the flows of the East and West Forks of Tulalip Creek and Battle Creek as fully as reasonably possible throughout the year. This includes the reuse of much of the Tulalip Creek flow. The combined flows of the two forks of Tulalip Creek vary from a winter high in excess of twenty cubic feet per second to summer low flow of less than five cubic feet per second.

The Hatchery well water is used mainly during the months of October through early February for egg incubation, but it is also used to supplement Tulalip Creek water when necessary during the summer low flow months of July and August. Well water is used for incubation because it is pathogen free and has a constant temperature. The well water is used during the summer months both to increase the total flow through the Hatchery rearing facilities and to control high summer water temperatures in Tulalip Creek.

The Tulalip Tribes would like to increase the production of the Hatchery, subject to harvest management and marine environmental constraints. This will require water beyond that now available on the Reservation. The exact amount of increased production that could be achieved would be dependent upon both the quantity and qualities of the water obtained, but for preliminary planning purposes one could assume that Hatchery production could be at least doubled if an additional eight cubic feet per second were to become available.

Such increased production would require considerable expansion of rearing facilities and additional operating funding. These facilities might be located at the present Hatchery site or at a satellite facility depending on the economics of building a new water line to the Hatchery compared to the added costs of operating a satellite facility. The creation of a satellite facility would likely require modifications of the present land use designations and protection of the area in which it was to be located.

B. WASTEWATER

1. TULALIP WASTEWATER SYSTEM

The Tulalip Tribes operates a 308,000 gpd secondary treatment facility with six pump stations and a collection system that rings Tulalip Bay (Figure 10-2). The system serves about 1,400 people through 800 connections and was constructed in 1974 with federal grant funds. The Tribes, through R.W. Beck & Associates, completed a wastewater facilities plan and are proceeding with the construction of a \$1.46 Million wastewater treatment facility improvement project. This project will add aerobic digestion and sludge handling facilities and construction is planned for 1993-1994. The project is being funded by about \$1.3 Million in EPA Clean Water Act Funds and funds from the U.S. Indian Health Service through a tri-party agreement (some Tribal funding may be needed if construction costs exceed project estimates).

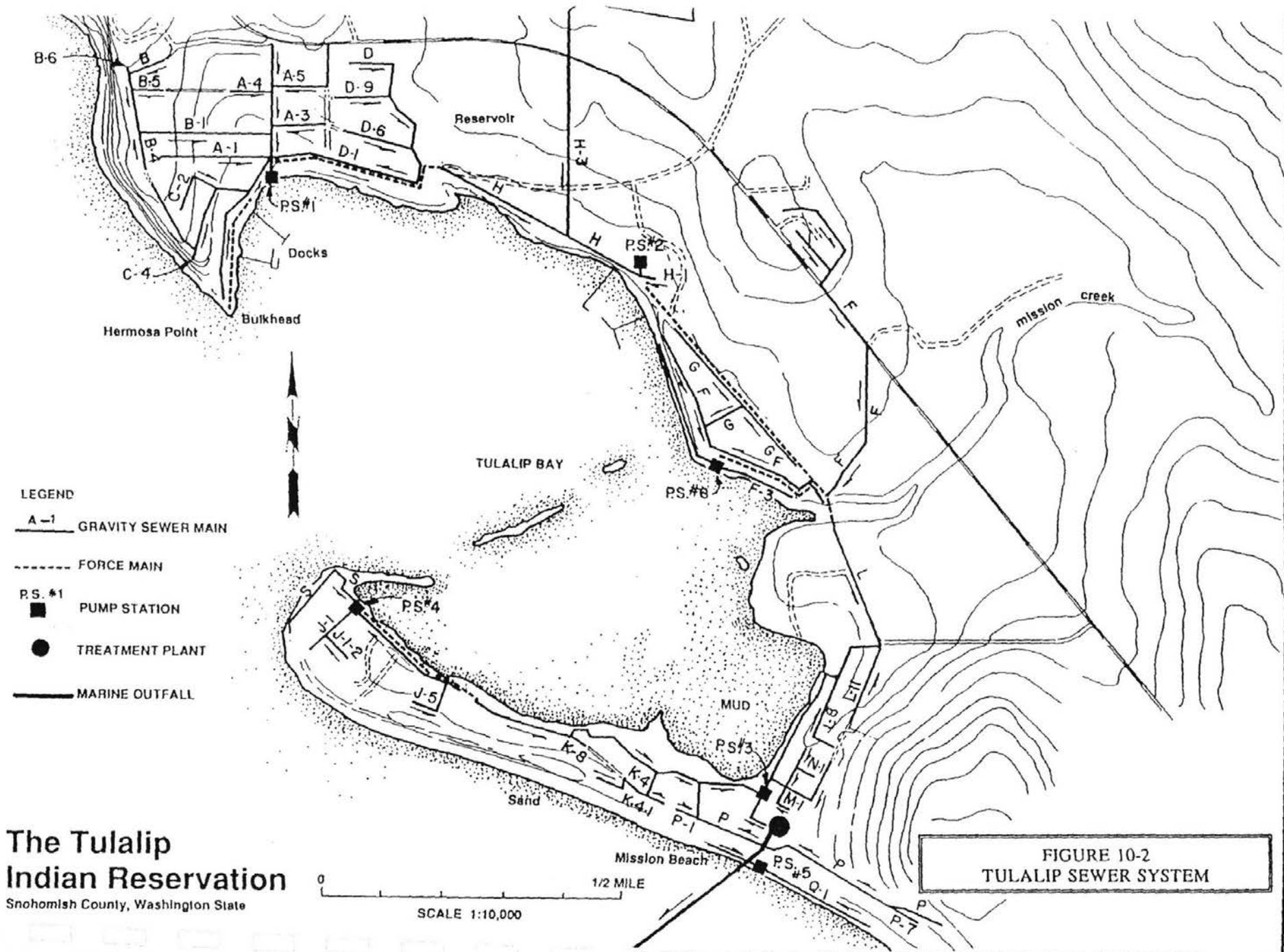


FIGURE 10-2
TULALIP SEWER SYSTEM

**The Tulalip
Indian Reservation**
Snohomish County, Washington State

0 1/2 MILE
SCALE 1:10,000

In 1993 the Tulalip Tribes/Tulalip Utility Authority and the Tulalip Housing Authority were working with the U.S. Indian Health Service and the U.S. Dept. of Housing and Urban Development for funds to expand the treatment plant. Funds for a third clarifier are apparently available based on Tribal housing development off-site sanitation improvement needs and funding for a second aeration basin are also being sought as part of these projects.

2. CITY OF MARYSVILLE WASTEWATER SYSTEM

As of January 1993 the City of Marysville provided sewer service to about 200 people on the Reservation including the Marysville West subdivision and several businesses clustered near I-5. The City recently constructed storm sewer lines to separate storm water from sanitary sewer flows and aerators were added to reduce BOD. Construction of a sewer outfall to Steamboat Slough instead of the smaller Ebey Slough is planned. A private sewer line is proposed outside of the City's service area to serve a new elementary school planned by the Marysville School District off Quilceda Road (27th Avenue).

3. SEPTIC TANK SYSTEMS

Most of the Reservation's population is served by individual household septic systems. There are septic tank problems in the Priest Point and Port Susan areas due to inadequate lot size, and problems in the southeastern part of the Reservation due to poor soils and a high groundwater table. Failing shoreline septic systems are a major health risk for adjoining shellfish populations and for the people who eat them. Many or most of these problems are on fee land. The Indian Health Service (IHS) provides septic systems for Tribal members. However, there are no Tribal rules or regulations regarding septic system siting, installation or management for non-Tribal homes on Tribal lease land. A Tribal Sanitation ordinance incorporating / referencing rules and regulations (e.g. IHS and DOE) would reduce septic tank failure problems on the Reservation.

4. SEWER SYSTEM DEVELOPMENT

The southeastern corner of the Reservation has the greatest need of a sewer system. The City of Marysville and the Tulalip Tribes have considered the possibility of constructing a joint facility to serve the eastern portion of the Reservation and the City of Marysville. The Priest Point to 116th Street NE have been considered for such a system since the 1980 Lower Snohomish Basin 201 Facilities Plan. Another option would be the design and construction of a separate system for the eastern third of the Reservation (with or without the absorption of the City of Marysville's current users) and with an emergency intertie with the City of Marysville's system.

The Tulalip Tribes applied for and received Centennial Clean Water grant funds from the Washington Dept. of Ecology and funds from the U.S. Indian Health Service for preparation of a facility plan for this area of the Reservation. Design and construction of the facility/facilities proposed by the study would not be completed until 1996 or 1997.

Until such a system is constructed initial development of the Tulalip Tribes' proposed I-5 Business Park will require separate action since a community wide or regional system cannot be developed prior to initial development of the Business Park. A STEP (Septic Tank Effluent Pump) system using community septic tank(s), small pressurized lines and a conventional drainfield(s) might be used. It is also possible that the Business Park may also be connected to the City of Marysville's sewer system at a later phase of business park development.

A community collection and septic treatment system is funded and designed for a new Tribal housing development off Quilceda Road (27th Avenue) and scheduled for construction during 1993-94. It is planned that this system will be closed out when the Southeast Tulalip Wastewater collection and treatment system is constructed.

A listing of future sewer projects would likely include the following:

- o Five year growth plan:
 - Sewer system development for start-up of I-5 business park
 - Construction of third clarifier at Tulalip Bay plant.
 - Construction of second aeration basin at Tulalip Bay plant.
 - Development of sludge composting site or other alternate to reduce disposal costs.
 - Planning and Design of a sewer system for the southeastern corner of the Reservation in connection with the City of Marysville or through a separate system.
 - Sewer line extension northwest of Tulalip Bay.
 - Construction of southeastern sewer system.
- o Ten year growth plan:
 - Sewer line extension to Turk Road.
 - Sewer line extensions in southeastern corner of Reservation.
 - Construction of community collection and treatment system east of John Sam Lake.
- o Fifteen year growth plan:
 - Construction of additional clarifiers and an aeration basin on land reserved adjacent to Tulalip Bay treatment plant site.
 - Phased improvements to wastewater collection systems serving Tulalip Bay and the southeastern corner of the Reservation.
- o Twenty year growth plan:
 - Phased improvements to wastewater collection systems serving Tulalip Bay and the eastern portion of the Reservation including area north to Firetrail Road (140th).

During this period the Tribes would explore the creation of other wastewater treatment facilities including potential package plants in higher density areas (e.g. John Sam Lake) where water sanitation problems and growth patterns dictate.

5. FUNDING METHODS

The same grant and loan programs apply as mentioned under the water system section above. Washington Centennial Clean Water funding would be sought for the design and construction phases of the Southeastern Tulalip Wastewater system.

C. STORMWATER

Most of the Reservation is without stormwater drainage systems. The area east of Quilceda Creek (near the I-5 freeway) has a stormwater drainage system as does the Marysville West subdivision a half mile west of Quilceda Creek. Both of these systems drain into Ebey Slough. There are also two small stormwater systems on Tulalip Bay. One is south of Tulalip Elementary School between the Marina and Tulalip Creek and the other systems drains 64th Street. Both of these small systems drain into Tulalip Bay.

The areas of greatest density have the largest amount of impermeable surface. The Tribes needs to evaluate the surface water drainage problems in heavily developed areas (e.g. Tulalip Bay) and develop measures to reduce stormwater problems with existing development (e.g. drainage culverts, vegetation to decrease erosion).

D. SOLID WASTE DISPOSAL

1. TRIBAL

Historically, waste management on-Reservation consisted of establishing various landfills and operating them solely for the benefit of Tribal members. However, this approach was permanently abandoned and in more recent times the Tribes established a solid waste transfer station near Tulalip Bay. This service has been provided to Tribal members only. It is anticipated that the transfer station will be relocated further from Tulalip Bay and combined with recycling activities. Waste from Tulalip is hauled to the nearest regional landfill operated by Snohomish County.

2. NON-TRIBAL

Non-Tribal members living on-Reservation must either haul their own waste or contract with a local solid waste disposal firm for collection on a weekly or monthly basis. While it may seem that this would lead to significant phantom dumping by these residents, in fact most of the phantom dumping originates from off-Reservation residents according to enforcement records.

3. RECYCLING AND WASTE MANAGEMENT

It is the Tulalip Tribes policy to actively encourage recycling and explore new ways of implementing it. Snohomish County provides a recycling station for all residents near Tulalip Elementary School, which has seen increasing use since its installation in mid-1989. At the time of placement, the station could accept glass, aluminum, tin, mixed wastepaper and newspaper. Household hazardous waste collection events have been held in the past for all County residents and the reservation residents participate in those programs. Tulalip also provides for oil, oil filter, and anti-freeze recycling at the tribes Marina facility.

E. ENERGY SOURCES

1. ELECTRICAL ENERGY & STREET LIGHTING

Several sources of energy are available on the Reservation. The most widely distributed and used source is electricity provided by Snohomish County P.U.D. A single sub-station located 1.25 miles west of the I-5/Marysville exit on Marine Drive serves the Tulalip community. Electrical power is available along nearly every road right-of-way.

The P.U.D. is constructing a new 115 KV electrical line within largely Tribal Right of Ways along/near Interstate 5. The line will serve development north of Marysville and the Tribes planned business park. A site off the planned 88th Street interchange is planned for a second substation to serve the eastern Reservation and the Tribes business park.

The Tulalip Tribes provides street lighting improvements at high traffic intersections through use of real estate excise tax funds. This is a 1% tax on the sale of privately owned real property on the Tulalip Reservation. Street lights currently run most of the distance on the Reservations main access road, Tulalip Road (or Marine Drive) from Tulalip Bay to Interstate 5.

2. NATURAL GAS

Natural gas is a highly desirable form of energy, but at present is only available in the commercial area at the I-5/Marysville exit. A propane distributor is located at I-5 and 128th Street, selling bottled propane and providing delivery service. While a number of homes may use oil heat, presently no bulk fuel oil distributors are located on Reservation.

3. OTHER ENERGY SOURCES

Many Tribal homes, as well as non-Indian homes, utilize wood heat as a main energy source or combined with electricity. Some homes benefit from passive solar systems, although solar supply does not often coincide with times of greatest energy demand. No known hydro or wind driven generation systems exist on Reservation. Tidal energy sources are not presently viable, and no geothermal potential is believed to exist.

F. TELECOMMUNICATIONS

1. TELEPHONE

The availability of and access to telecommunication technologies and services on the Tulalip Reservation are similar to other areas in the Puget Sound region. Telephone service is provided by GTE-Northwest (GTE-NW), a private utility regulated by the State of Washington Transportation and Utilities Commission. Both residential and commercial services are available via GTE-NW's Marysville Central Office. Other services provided by GTE-NW include dedicated lines and data circuits designed for transmission of computer generated information. A number of public and private utilities, including GTE-NW, have fiber optic "point of presence" immediately adjacent to the eastern boundary of the Reservation. The fiber optic routes align with Interstate 5 and are designed to allow access/service to Reservation development as the demand for fiber optic service becomes present.

2. CABLEVISION

In addition to the telephone service described above, the Reservation is provided with cable television programming by Tulalip Cablevision Company (TCC). Established in 1986, TCC was chartered as a business entity of the Tulalip Tribes and was granted a Cable Franchise to provide cable television service within the exterior boundaries of the Reservation as authorized by Tribal Ordinance No. 64 - Antenna Franchise Ordinance. Financing for the construction of TCC included loans from private lending institutions, backed by Bureau of Indian Affairs' loan guarantee's of Ninety percent (90%) and equity capital investment by the Tribe of Twenty percent (20%) of construction cost.

TCC provides 24 hour news, general entertainment, information, and sports programming to Indian and non-Indian residences located within the service area of the Reservation via Fifty-Five (55) miles of aerial coaxial cable and Ten (10) miles of underground coaxial cable. Programming includes; 20 channels of national and local origination broadcasting, 3 movie pay channels and a community information channel. The cable system is designed for efficient expansion of programming as demand and cost analysis warrant.

The 1990 subscriber base is approximately 1,000. Revenue generated by TCC are used to pay for operating and maintenance expenses, debt service on construction loans and planned system expansion.

3. SPECIAL PURPOSE UTILITY DISTRICT(S)

In an effort to insure coordinated planning and implementation of telecommunication services for specific area's of the Reservation, the Tribes are considering development of Special Purpose Utility District(s). These districts would network identified area's, such as the planned Tribal Business Park and other commercial development on Reservation, with telecommunication services and other utility services as needed and/or planned.

The development of Special Purpose Utility Districts may involve the participation of Joint Venture partnerships between the Tribe and developers experienced in the planning, implementation and operation of such districts.

CHAPTER 11: HOUSING

Housing on the Tulalip Indian Reservation can be characterized as being primarily single family homes clustered around the perimeters of the Reservation and serving both seasonal and year-round residents. Residents are clustered to take advantage of water and sewer facilities as well as road access. There are also single family homes scattered throughout the interior of the Reservation which are on single lots and are served by septic systems and wells.

Housing will be discussed in two main sections. The first section will discuss population and housing characteristics Reservation-wide. The second section will concentrate on Tulalip owned and Tribal member owned housing.

A. HOUSING ON THE RESERVATION

1. POPULATION AND HOUSING CHARACTERISTICS

a. Bureau of Census Data: The 1980 Census showed 5,046 people living on the Reservation. The average annual rate of population increase from 1970 - 1980 was 5.2 percent. On the Reservation, the median age was listed at 28.6 years with 31% of the population under the age of 18 and 8% over 64 years of age.

In 1980 there were 2,091 total housing units on the Reservation and 262 of these were vacant seasonal housing units (Census Tract Data, Seattle-Everett SMSA report). Of the 1,863 year-round residences 1,480 (79%) were single family units, 61 (3%) were multiple family units and 322 (17%) were mobile homes. The census report also show 1,771 households on the Reservation with an average occupancy of 2.85 persons per unit. The household total included 1,355 family occupied units which had an average of 3.24 persons per family.

Of the year-round housing units on the Reservation 1,420 (78%) homes were owner occupied, 351 homes (19%) were rentals and 58 homes (3%) were vacant. The median value of owner occupied homes on the Reservation was approximately \$60,700, and the median rent for a single-family home was \$311. The median housing costs for Indian homes was \$48,100 which was much higher than for other Reservations in the Puget Sound area, e.g., Lummi \$39,200; Swinomish \$36,900; Puyallup \$28,800; and Nisqually \$45,000 (1980 U.S. Census General Housing Characteristics Table 53).

The census data showed that 85% of employed persons living on the Reservation worked in Snohomish County and 13% worked in King County. Of the remainder, 14 people worked outside the two-county area and 30 people worked outside the state but had residences on the Tulalip Reservation.

b. County Building Permit Data: The Snohomish County Department of Planning and Community Development processed 469 building permits for new non-Tribal residential units on the Reservation between 1980 and 1989, averaging about 47 units per year. Of the 414 housing units permitted on the Reservation by Snohomish County between 1980 and 1988, 195 (47%) were single family homes, 219 (53%) were mobile homes and none were multi-family housing units. Mobile homes made up 15.4% of the total housing stock in Snohomish County in 1989 compared to 3.7% in incorporated areas. The County average for mobile homes was less than 12%.

c. 1989 Snohomish County Annual Demographic Trends & Forecasts: This Snohomish County document is largely based on building permit records. It shows 2,217 year-round housing units on the Reservation in 1989 including 1,621 single family units, 536 mobile homes and 60 multi-family units (units within structures containing two or more units). This report lists the average sales price of a single family home on the Reservation in 1988 as \$79,513 compared to \$93,864 for the County as a whole. Median household income was listed as \$29,023 for the Reservation compared to \$29,369 for the County as a whole. One of the reports conclusions was that personal income in the County hasn't kept up with rising housing prices.

d. 1990 Postcensus Review Data: The 1990 postcensus local review data indicates that there are 4,027 housing units on the Reservation. Of this number 1,541 (38%) were listed as vacant leaving a subtotal of 2,486 permanent residences. The 1980 census indicated that there were 2,091 total housing units on the Reservation and that 262 (12.5%) were seasonal residences. This was similar to the seasonal housing percentages for the Warm Beach - Lake Goodwin area north of the Reservation. The 1990 Postcensus data indicates that a great increase has occurred in seasonal housing units on the Reservation since 1980.

The 1989 Puget Sound Council of Governments (PSCOG) Population and Housing Report of April 1989 estimated that there were only 2,168 total housing units on the Reservation with a vacancy rate of 3.61%. This number, however, was based only on year-round housing units and is far less than the 4,027 total housing units identified in the 1990 Postcensus data. The 1990 postcensus data confirms the consistent underestimation of housing units on the Reservation by PSCOG. While most of this disparity appears to have been in uncounted seasonal housing units population estimates based only on year-round housing units greatly underestimates the population of the Reservation and the demands placed on infrastructure (roads, water, sewer, capacities and sizing).

These statistics indicate the following characteristics:

- o There is a fairly constant increase in housing being built on the Reservation.

- o There has been a large increase in seasonal resident housing units since 1980.
- o Housing demand priorities are: (1) single family; (2) mobile homes and; (3) multi-family homes.
- o Households are characterized by younger aged, median income families.
- o Most employed persons living on the Reservation work within a twenty mile radius from their homes.
- o Most homes are owner-occupied but there may be a latent demand for rental homes.

2. LOCATION AND QUALITY OF EXISTING HOUSING

Housing on the Reservation is concentrated in several residential communities; primarily along Port Susan, Tulalip Bay, Priest Point and close to Marysville. Tulalip Shores, Spee-Bi-Dah, Tulare Beach and Sunny Shores are individual residential communities spread out along the coastline overlooking Port Susan. Table 11-1 shows the dispersion of housing units on the Reservation according to 1990 Postcensus local review data. Each community, except for Spee-bi-dah, has its own water system with homes on individual septic systems. The homes in Spee-Bi-Dah are on individual wells. Combined, this area holds about 180 homes with very little room for growth. The residential community of Marysville West is located in the southeast corner of the Reservation on Marine Drive and is served by the City of Marysville's community water and sewer. This subdivision of 170 homes is the largest residential development on the Reservation.

In this same general area but adjacent to Marine Drive, are several undeveloped subdivisions with lot sizes from 2.3 to 6 acres.

The Port Susan Camping Club leases 713 acres from the Tribes for recreation. This development has the distinction of being called a camping club because its charter and agreement with the Tribes is for seasonal occupancy in temporary homes. There are 2,500 memberships in the camping club, almost all of which have been sold. On a holiday, there are 2,000 to 3,000 people on site.

Individual homes and residential communities are also scattered along Firetrail Road which is the Reservation's northern boundary. Residential communities are concentrated primarily around the lakes in that area. This is an area that will be experiencing growth pressures because of the on-going development around Lake Goodwin which is just north of the Reservation off of Fire Trail Road.

Individual single-family homes and mobile homes are scattered along Marine Drive and up some of the minor arterials branching off of Marine Drive. Mission Beach, Hermosa Point and Priest Point homes range from a few small cabins to large, higher priced homes. The homes along Tulalip Bay are on land owned by the Tribes and leased out for both short term (10 years) and long term (30 years).

TABLE 11-1

1990 POSTCENSUS LOCAL REVIEW DATA, HOUSING UNITS

	<u>Housing Units</u>
Marysville West Area	560
Priest Point *	238
Tulalip Bay *	654
Northwest Coast *	225
Stimson's Crossing (NE corner of Res.)	159
Port Susan Camping Club	1,441
Reservation's Interior	<u>750</u>
	4,027**

(* South of Marine Drive; ** includes 1,541 vacant units)

The quality of housing varies greatly on the Reservation from expensive beach homes to very basic cottages. In general, the homes located along the Reservation perimeter below Marine Drive are on small view property lots served by water systems. The lake communities on the northern edge of the reservation also follow this pattern. Homes in the interior of the Reservation are generally on larger lots, and often served by individual wells. Housing units in need of rehabilitation normally require roof, gutter and plumbing repairs related to the age of the units.

3. SUBSTANDARD HOUSING

The 1989-1991 Snohomish County Housing Assistance Plan shows a county-wide inventory of about 135,000 housing units, one quarter of which are rentals. About 3.6% of these housing units are considered *substandard*. *Substandard housing* is a greater problem on the Reservation than it is for the County as a whole. Forty-one percent of the respondents to the 1985 Tribal Housing Survey believed their housing to be *substandard*.

The 1989-1991 Snohomish County Housing Assistance Plan identified areas in need. The plan included low rent public housing construction projects (204 units) and low income housing rehabilitation projects (1,130) among the programs planned for Snohomish County.

The Snohomish County Housing Authority (SCHA) subsidizes some Section 8 rental housing units on the Reservation and has made housing rehabilitation loans on the Reservation, however, local approval is required in order for SCHA to construct new housing. On the Reservation this would involve the legislative boards of the Tulalip Tribes and the Tulalip Housing Authority. SCHA is willing to site housing construction projects on the Reservation. For example, SCHA is having difficulty finding an affordable site for a publicly owned mobile home park and they are interested in exploring the possibility of a siting one on the Reservation. A jointly owned/operated mobile home park would be one possibility.

In addition, the Cascade Intertribal Housing Authority provides for limited Section 8 housing on the Reservation.

B. TRIBAL MEMBER AND TRIBAL OWNED HOUSING

In 1985 the Tribes conducted a survey of Tribal housing needs. At that time, of the 297 Tribal households surveyed, 66 were located off-Reservation and 231 were on-Reservation. One hundred fourteen of these households were under the jurisdiction of the Tulalip Housing Authority. All 297 units were single-family homes, but 31 of them were occupied by two or more families. 135 or 45% of the people surveyed stated that their homes were in standard condition, while 162 or 55% believed their units were in sub-standard and/or deteriorating condition. Three of the homes surveyed were in need of replacement.

Of the 297 households surveyed, 208 were categorized as in need of new housing. This included single family homes occupied by two or more families and homes that could not be brought up to standard condition.

Less than half (44%) of the dwelling units identified by the survey were owned by the occupants. This included households that were leasing to buy. Of the one hundred and forty four families renting their homes, 69 expressed an interest in permanent housing.

Parts of the 1985 survey were updated in 1989. Of the 375 homes in the 1989 survey 235 (63%) were in standard condition and 140 (37%) were in substandard condition (137 in need of renovation, and 3 in need of replacement). In comparing these percentages with the 1985 survey results, the Tribes housing situation shows marked improvement over the four year period.

Population characteristics of the Tribe show a growth rate of 5.2 percent per year. The 1986 Tribal enrollment was 1,848 members with 1,242 people living on the Reservation. There is a substantial number of young people enrolled at the present time. In 1970, 60% of the Tribal population was under the age of 25. This indicates a growing need for housing and a strong Tribal housing program.

To address this need the Tribes formed the Tulalip Tribes Housing Authority in 1974 and began operation in 1976. Funding for homes comes from the Department of Housing and Urban Development (HUD). The Housing Authority currently manages six different housing projects for a total of 114 units. Of those 114 units, 39 units were mutual help homes where the tenant has the opportunity to purchase the home from HUD. The remaining 75 were rentals.

The Tulalip Housing Authority (THA) had four projects under construction in 1990, a sixty-four unit low income housing project and a ten unit elders complex both located near Tulalip Bay. Plans are in place for both sites to be expanded. Also, THA had seven new scattered housing sites under development on the Reservation.

In addition to these projects, the Tulalip Tribes is currently working on a Federal Home Administration pilot project to provide affordable housing to lower middle income families. As of 1990, seventy people have applied for these homes. In addition, the Housing Authority is working on another HUD project which will add 20 rentals and 20 mutual help homes to the housing stock.

In July of 1987 there were 300 people (155 families) in need of housing and 231 pending applications. Of these applications, 100 were for mutual help homes, 30 for rental units and 101 for emergency rentals. In May 1989 the Bureau of Indian Affairs estimated that there were 222 tribal families in need of housing. Efforts have continued to meet demand.

Another housing program which is administered by the Tribes, is the Housing Improvement Program (HIP). The HIP program is financed by BIA funds, and enables the Tribe to offer grants from \$2,500 to \$20,000 to qualified Tribal families for eligible home improvements and/or to provide a down payment on a home purchase. Over the past 5 years \$14,000 - \$80,000 per year have been spent from grant funds. This program will continue to receive funding, however, the BIA's budget is continually being reduced to the potential detriment of this program and the Tribes may have to find alternate funding sources in the future.

The Tribes also owns and manages a 6 unit apartment complex and a duplex unit for elderly Tribal members. The Tribes Maintenance Department provides upkeep and repairs.

C. HOUSING NEEDS

To assess housing needs, the Tribes are projecting at current demands 20-50 years into the future. Based on empirical data and predicted size/age of the Reservation population, the following have been identified as housing needs in 2040:

1. General Population
 - o More single family homes for all income levels.

- o More duplexes.
 - o More mobile homes.
2. Tribal Population
- o A retirement home/convalescent center for elders.
 - o A halfway home for Tribal members returning from treatment centers.
 - o A youth home for homeless children.
 - o More HUD homes for lower income families.
 - o Alternatives for affordable housing for all age groups, particularly the 19-30 year olds.

The Tribes are exploring the need for clustered housing units on Tribal lands and are actively seeking land to purchase for housing.

Due to the Reservation's existing sewer and water capacity limitations and the difficulties with transportation access and fire protection, the Tribes are encouraging in-filling of existing residential areas and restrained development outside those areas (10 acre lot size minimums) in the near term.

CHAPTER 12: COMMUNITY SERVICES

The Tulalip Reservation receives community services from Tribal and non-Tribal sources including services from various city, state, federal and special district agencies. The Tulalip Tribes operates a variety of health, social, education and public safety programs.

A. TRIBAL ENFORCEMENT PROGRAMS

1. SNOHOMISH COUNTY SHERIFFS DEPARTMENT

The Snohomish County Sheriff's Department, acting for the State of Washington, has jurisdiction over certain criminal offenses committed or arising on the Reservation as is outlined in Public Law 280. Frequently occurring incidents on the Reservation include theft of auto and boat parts, burglary and domestic disputes. Many of these incidents are alcohol or drug related and juvenile and young adult unemployment is a contributing factor.

The County provides regular patrol and incident response services. Emphasis is placed on Marine Drive due to its high traffic volume and accident record. The Sheriff's Department also provides traffic control services during the Reservations's 4th of July fireworks sales.

2. TRIBAL SECURITY PROGRAMS

The Tulalip Tribes has three security programs; forestry patrol, fisheries enforcement and facility security (primarily Tulalip Bingo and the Liquor Store). Tulalip also patrols the Reservation for illegal dumping and land use development. The Tulalip Tribal forestry program has a security officer that monitors for unauthorized wood cutting, littering and vandalism in the Tribes' forestry lands. The Tribal Fisheries Enforcement program has a staff of three officers and a supervisor that enforce Federal, Tribal and State fishery laws. While these officers can arrest Tribal members their jurisdiction only allows them to notify the appropriate County/State/Federal officials of acts committed by non-Tribal members. The fisheries enforcement personnel also perform search and rescue duties.

3. TRIBAL COURT

The Tulalip Tribes belong to the Northwest Intertribal Court System (NICS) which provides for a judge and a prosecutor appointed by the Tribes. Court is held on the Reservation and the cases heard involve civil and criminal offenses by adult Indians. Offenses range from timber and fisheries infractions to Housing Authority complaints.

B. FIRE PROTECTION AND EMERGENCY MEDICAL RESPONSE

1. TULALIP FIRE DEPARTMENT

The Tulalip Fire Department (Snohomish County Fire District No. 15) serves the shoreline communities west of Priest Point and the inland housing developments on Waterworks Road and Turk Road. The District's fire station is located on the southern shore of Tulalip Bay (3015 Mission Beach Drive). It has twenty volunteer fire fighters, three engines, a 3,500 gallon tanker and a small boat for beach fires. The District has an ISO class 8 rating except for the Tulalip Bay area which has a class 7 rating.

The district has 2 first aid vehicles and all the firefighters are also trained as First Responders. Approximately half of the department has also been trained as Emergency Medical Technicians.

Most of the District's population of 2,395 is served by community water systems but water pressure is low. The distant beach communities of Sunny Shores, Tulare Beach and Spee-Bi-Dah have 10,000 gallon storage tanks for fire fighting and Tulalip Shores has a 50,000 gallon tank. Tulalip Bay, Tulare Beach and Tulalip Shores have hydrants.

2. LAKE GOODWIN FIRE DEPARTMENT

The Lake Goodwin Fire Department (Snohomish County Fire District No. 20) serves about 900 residents in the central northern area of the Reservation. This area includes four miles of Fire Trail Road and the lakeshore communities at John Sam Lake and Weallup Lake (Port Susan Camping Club). The District has twenty volunteers and two full-time employees who split their time between their stations on the north end of Lake Goodwin and the southeastern end of Loma Lake. Lake Goodwin has an ambulance, two engines, a 4,000 gallon tanker, and a small brush fire truck. Loma Lake has an engine and ambulance service is planned. There is one hydrant at John Sam Lake and none at Port Susan (Weallup Lake). The District has an ISO rating of 7.

3. SNOHOMISH COUNTY FIRE DISTRICT NO. 12

Snohomish County Fire District No. 12 serves about 460 residents in the northeastern corner of the Reservation from the District's Midway Station (14716 35th Ave. NE/Smokey Point Blvd., Marysville). This is largely a rural/agricultural area without community water systems. The Midway Station has two engines (500 gal. each), an aid car, and an average of nine employees assigned to Midway. The District also has about 25 volunteers.

District No. 12 also serves approximately 1,555 residents in the southeastern corner of the Reservation (from I-5 to Priest Point) through a service agreement with the City of Marysville. The City's Grove Street fire station provides the primary response under this agreement. The station has three engines, an aid car, and a staff of 14 employees, about 19 volunteers and 7 recruit fire fighters. The City has an ISO rating of 5 but the rating



FIRE DISTRICT (FPD) BOUNDARIES

FIRE DISTRICT #12

FIRE DISTRICT #15

FIRE DISTRICT #20

MARYSVILLE FIRE DEPT.

DEPT. OF NATURAL RESOURCES (DNR)

● FIRE STATION

The Tulalip Indian Reservation

Snohomish County, Washington State

FIGURE 12-1
FIRE DISTRICT
BOUNDARIES & STATIONS

CHAPTER 12: COMMUNITY SERVICES

does not extend beyond the City's water system. The City's water extends to the Marysville West Subdivision and the Tribal water system runs along Marine Drive.

Fire District No. 12, which surrounds the City of Marysville, is meeting with the City on the possible merger of their respective fire districts. Fire District No. 12 has a total service area of 22 square miles and the City's area is 12.5 square miles. The City serves about 7,765 people and the District serves about 27,430 people, most of whom (80%) live north of the City.

Marysville Fire District also provides regional paramedic service out of their Zaebell station in north east Marysville. This service is jointly operated by the Marysville Fire District and Cascade Valley Hospital in Arlington.

4. AMBULANCE AND PARAMEDIC SERVICES

The Reservation is served by multiple ambulance and paramedic services. Cascade Valley Hospital in Arlington provides both Basic ambulance service and paramedic services. The Marysville Fire District provides Paramedic service from north Marysville. Shannon Ambulance provides a mobile critical care unit operated by registered nurses and basic ambulance service from Everett. Shepard Ambulance provides: a mobile critical care unit operated by registered nurses, basic ambulance service and a cabulance service for disable patients.

5. HOSPITALS

Most patients transported from the reservation for emergency medical treatment go to one of three local hospitals. The local hospitals area: General Hospital and Medical Center, Providence Hospital and Cascade Valley Hospital. The first two hospitals are in Everett and the other hospital is in Arlington. General Hospital is the regional trauma center for Snohomish and Island counties and also specializes in cardiac and obstetric services. Providence hospital specializes in cancer, pediatrics, and sexual abuse treatment services. All three hospitals provide all normal hospitalization services.

6. WASHINGTON DEPT. OF NATURAL RESOURCES

The state's Department of Natural Resources (DNR) serves all the areas of the Reservation which are not claimed by Fire Districts. Several large timber property owners contract directly with DNR. The unclaimed areas served are west of the Boeing Test Site and north of Priest Point. DNR's facility is in Sedro Wooley. Local fire districts respond to fires in these areas until the DNR equipment arrives.

7. BOEING TEST SITE

The Boeing Test Site is not in a fire protection district but has its own fire station and generally two people on duty.

8. DISPATCH & MUTUAL AID

The fire districts serving the Reservation are all connected to the City of Everett's "911" communications center. All of the adjacent fire districts have mutual aid agreements to respond to fires in other districts.

9. HAZARDOUS MATERIALS & DISASTERS

Snohomish County handles natural disasters within the County and the fire districts are responsible for aircraft and bus accidents. Hazardous material incidents on County roads are the responsibility of the State Highway Patrol, but local fire districts are responsible for first response. The City of Everett's hazardous materials team is requested to respond and private firms are then requested to handle the clean up.

The Superfund Amendments and Relief Act Title III requires businesses and industries that create, use or transport hazardous materials, hazardous materials or hazardous waste to report content and volume to the Tribes and the local fire districts. This information is then used to create a emergency response plans in the case of an accidental release of one or more of the listed chemicals. Currently these plans are developed through the Snohomish County Dept. of Emergency Services and they also setup mock incident drills on an annual basis for testing the plans.

10. FUTURE FACILITIES & FINANCING

The City of Marysville and Fire District No. 12 are jointly planning a fire station within 1/4 mile of 19th Avenue (Rainwater Road) and Marine Drive to serve the southeastern quarter of the Reservation and the proposed Business Park. The fire districts recognize that this site is too far from the Priest Point area to provide the desired 5 minute response time standard and that the Business Park may warrant its own station. The tentative plan for the Business Park includes a site reserved for a Fire District No. 12 fire station. The Tulalip Tribes believes that a fire station is needed for the Business Park and that the proposed Marine Drive fire station should be located to provide 5 minute response time to the Priest Point area.

The Tulalip Fire Department has acquired property at Waterworks Road and Marine Drive. The Fire Department plans to construct a new fire station at that site and close the existing station. This new location would extend the District's 5 minute response capability up the coast to the vicinity of the beach communities of Tulalip Shores and Spee-Bi-Dah.

The fire districts are financed through local property taxes. Special tax levies may be required to finance new stations.

11. FIRE FLOW STANDARDS

The Draft Snohomish County Coordinated Water System Plan, which the Tribes are participating in, provides a set of minimum design standards for new capital facilities within

the critical water supply service area. The current draft of the plan requires fire flow rates of: 500 gallons per minute (gpm) for one hour in rural/transitional zones (>1 DU/2.3 acres ≤ 2 DU/acre), 1,000 gpm for an hour in urban/suburban zones (>2 DU/acre) and 1,500 gpm for an hour in multi-family (triplex & larger), commercial or industrial zones. The standards also require minimum distribution main pipe sizes of eight inches for urban, commercial and industrial and six inches for rural/transitional, rural, agricultural and forestry zones. These improvements are to be phased in over time and described in the utility's comprehensive water plan.

Only the Waterworks Road and Marine Drive in the vicinity of Tulalip Bay can meet a standard of 500 gpm (above normal maximum daily demand) and 20 pounds per square inch (psi) residual pressure criteria. The rest of the Tribal water system can not meet these fire flow standards, and Indian Health Service (IHS) policy does not permit funding of line size improvements to accommodate fire flow. Since the Tulalip Tribes' community water system was financed by IHS many improvements are needed for the water system to provide the fire flow levels prescribed in the County Coordinated Water System Plan. (See water service section of this document for water system expansion.)

C. HEALTH AND SOCIAL SERVICES

There are a wide variety of medical, dental and general health care services available to residents of the Tulalip community. There are several walk-in clinics, family practice clinics and various health care specialist offices in Everett and Marysville and there are two hospitals in Everett. The Snohomish County Health District provides communicable disease prevention, AIDS education and prevention, and a variety of other community health care programs. Snohomish County human services programs include alcohol and drug, mental health, senior services, child welfare and energy assistance programs.

While Tulalip Tribal members and other Indians are generally eligible for services provided by the Snohomish County Health District and for services provided by other County human services programs the cultural and community identity of the Reservation is such that effective health care requires that it be provided by the Tulalip Tribes on the Reservation. The Tulalip Tribes offers a variety of programs to the Tribal community at their facilities on Tulalip Bay. The Tribes' health clinic provides preventative and routine health care services including primary care, maternal and child health care, immunizations, pre-natal care, WIC services (Women, Infants and Children), nutrition counseling, planned parenthood services, community health services including home visits and health screening clinics, and an energy assistance program. The Tribes' dental clinic offers dental and orthodontia services. In combination the health clinic and dental clinic provided approximately 12,000 service units provided in 1989-90 (see Table 12-1).

The Tribes provides a variety of services in addition to their health and dental clinics. The Tribes' alcohol and drug program provides alcohol and drug treatment services including outreach. The Tribes' family counseling program provides counseling services to families, children and young parents. The Tribes' Indian Child Welfare program provides counseling, family conflict resolution, and intervention in child abuse and neglect cases and is active in

recruiting Indian foster homes. The Tribes' Elders Program provides transportation, hot meals and periodic health screening services (e.g. vision, diabetes, foot care). The Program also operates an assisted care living facility for seniors.

The Tulalip Tribes is in the process of designing and constructing a Tribal Elders Complex on Tulalip Bay. The Tribes are also planning to build an alcohol and drug recovery home in the Tulalip Bay area.

D. EDUCATION

There are a variety of educational programs available to students living on the Tulalip Reservation. Education is a priority of the Tulalip Tribes and efforts are made to increase cultural awareness and understanding through education. The Tulalip Tribes have an Education Committee and each Marysville school employs a Tribal member as a liaison person to help mediate any problems at the schools.

1. PRESCHOOLS

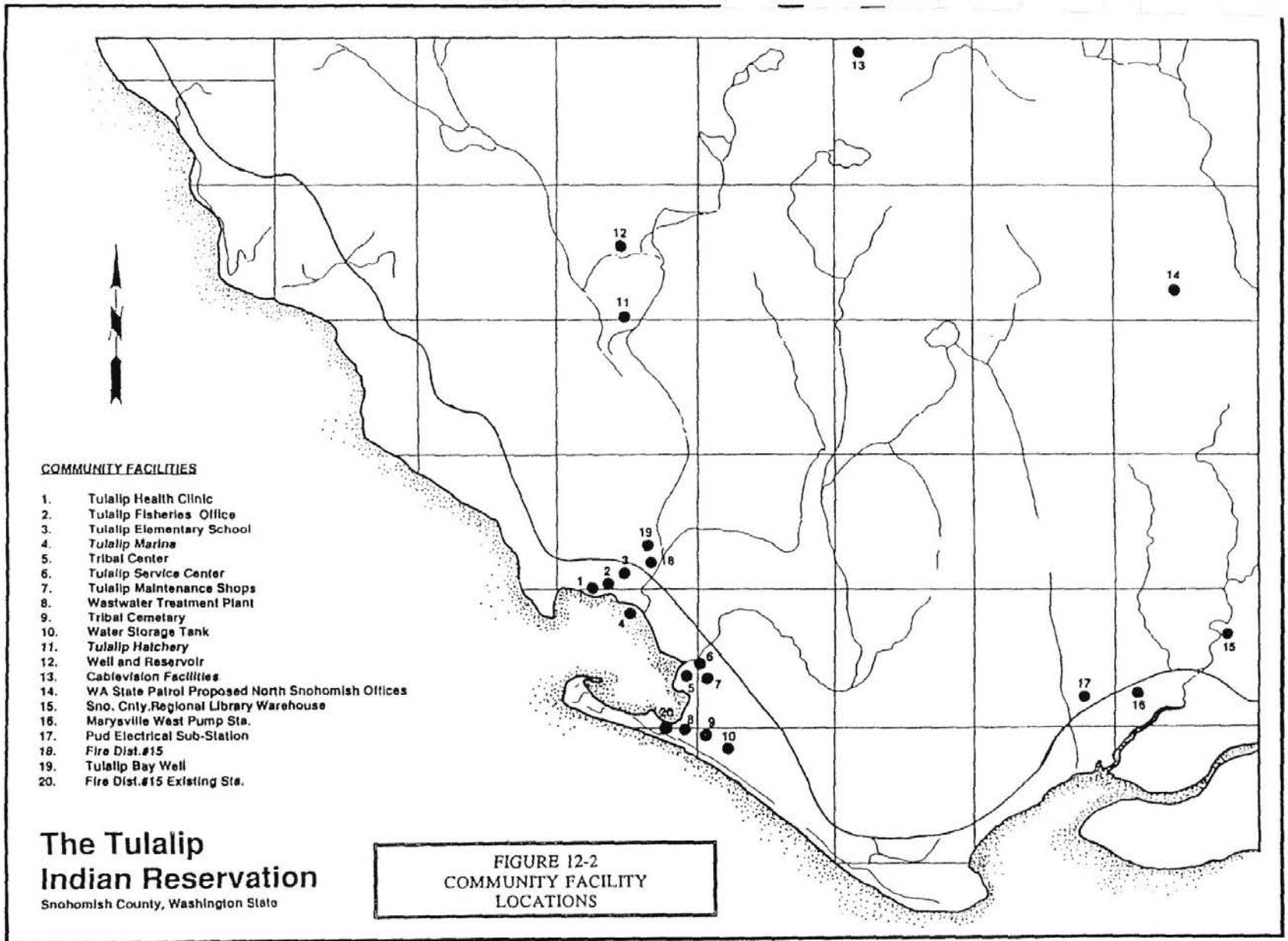
The Tulalip Tribes funds and operates the Early Childhood Education Assistance Program at Tulalip Bay. This program is licensed for 40 children and gives preference to Tribal members. Breakfast and transportation is provided. There are also several preschools in Marysville.

2. MARYSVILLE SCHOOL DISTRICT 25

The Tulalip Reservation is within the Marysville School District. Most kindergarten and grades 1 through 5 elementary students on the Reservation attend Tulalip Elementary School at Tulalip Bay. The current catchment boundary for Tulalip Elementary School includes all the shoreline communities west of I-5. Students living on the north end of the Reservation attend Marshall Elementary School in Marysville. All public school students attend the Middle School for grades 6 and 7, Junior High School for grades 8 and 9 (both schools are located in Marysville), and Marysville-Pilchuck High School north of Marysville. In 1991 a combined Middle School and Junior High School facility is planned on Marysville's east side. It would operate in addition to the current schools. The Marysville School District offers an alternative high school north of Marysville and the District cooperates with the Tulalip Tribes in providing a Tulalip alternative school program which serves students on the Reservation. There are also several private elementary and secondary schools in Marysville and Everett.

3. COLLEGES

Everett Community College (ECC) is the closest college to the Reservation. The Tulalip Tribes education program works in cooperation with Everett Community College to utilize federal and private funding sources to provide educational opportunities for Tribal members. ECC offers free high school completion and GED classes to all state residents. The Tulalip



CHAPTER 12: COMMUNITY SERVICES

Tribes also works with Northwest Indian College which is located on the Lummi Indian Reservation near Bellingham. Both colleges frequently offer courses on the Tulalip Reservation.

CHAPTER 13: GOALS AND OBJECTIVES

This Chapter outlines the specific goals and objectives of the Tulalip Comprehensive Plan. There are a few broad, consistent, and all encompassing goals and objectives that are listed under General Paragraph A. The remaining goals and objectives are presented in the same order as the Chapters to which they apply.

A. GENERAL

1. Goal:

To preserve the ability of the Tribal government (and the capability of the Reservation) to provide a permanent homeland on-Reservation for Tulalip Tribal members.

Objectives:

- a. Maintain Tribal Sovereignty.
- b. Maintain Tribal land use authority over all lands on the Reservation.
- c. Prevent the direct or indirect displacement of Tulalip Tribal members from lands within the Reservation that would otherwise result from growth and development activities that are inconsistent with the goals and purposes for which the Reservation was established.
- d. Acquire land within the Reservation, whenever possible, for the ultimate purpose of providing for Tribal Community needs such as housing, employment opportunities and general revenue income.

2. Goal:

To plan and promote the orderly physical development of the Reservation in harmony with the protection, preservation and enhancement of the environment.

Objective:

Develop a mutually acceptable Comprehensive Plan to be adopted by the Tulalip Tribes and Snohomish County for presentation to the public as a long term plan for the Reservation Community.

3. Goal:

To preserve the unique and essential Indian character of the entire Reservation.

Objectives:

- a. To preserve, maintain and enhance where possible, the elements that are considered to be distinctly Indian in culture, life-style and function that distinguish Tulalip from other communities and governments.

- b. Adopt, maintain and update as necessary, in addition to the Comprehensive Plan, appropriate zoning ordinances that will assist in achieving the above goals and objectives.

B. COMPREHENSIVE PLAN PROCESS

1. Goal:

To develop a Comprehensive Plan through extensive community involvement providing for the preservation and maintenance of the essential Tribal character of the land area and resources.

Objective:

Carry out the Comprehensive Plan public involvement process to maximize community involvement and responsibility for input and refinement of the Plan Goals and Objectives as outlined in Chapter 13.

2. Goal:

To develop a Comprehensive Plan which includes specific reference to Tribal Treaty Rights and Obligations and the preservation of Tribal political integrity, economic security and the preservation of community health, safety and general welfare.

Objective:

Carry out the Comprehensive Plan hearing and approval processes providing for full recognition of Tribal political integrity and the affirmation of Centennial Accord between the Federally Recognized Indian Tribes in Washington State and the State of Washington which recognizes a Government-to-Government relationship between the parties.

3. Goal:

To adopt a new Comprehensive Plan for the purpose of managing Reservation growth and development in light of the needs of the Tulalip people and the Reservation Community.

Objective:

Carry out the Comprehensive Plan adoption process as governed by Ordinance No. 56.

C. NATURAL RESOURCES

1. **Goal (General):**

To protect, conserve and, whenever possible, enhance the natural resources of the Tulalip Usual and Accustomed Places.

Objectives:

- a. Inventory, document, and classify natural resources on and off the Reservation including, but not limited to surface and ground water, air, earth and substrate materials, terrestrial and aquatic plant life, wildlife, waterfowl, and fisheries.
- b. Develop environmental protection policies, ordinances and enforcement mechanisms that will assist in the preservation, conservation and enhancement of natural resources.
- c. Prioritize where possible, and extend the greatest protection to, those resources that are required for maintaining the essential Indian character of the Reservation and are of greatest benefit and value to the Tulalip people and the environment.

2. **Goal (Air):**

To protect and enhance the air quality of the Reservation.

Objective:

Develop a tribal air quality control program including an education program, performance standards, and enforcement mechanisms without curtailing traditional tribal practices.

3. **Goal (Water Resources - General):**

To protect, conserve and enhance the water quality and quantity on and off the Reservation, including surface water, groundwater and marine waters.

Objectives:

- a. Initiate and complete the process necessary to qualify for U.S. Environmental Protection Agency status for treatment as a "State" for the purposes of implementation and administration of current and future "Clean Water Act" provisions which are intended to protect all water resources.
- b. Develop and implement a continuous water quality monitoring program for the aquatic resources on and off the Reservation. The purpose of the program being to:
 - 1.) characterize the water quality and quantity on the Reservation;
 - 2.) assess and identify potential adverse impacts on water quality and quantity, and;
 - 3.) assist in the formulation of corrective management actions.

- c. Develop and implement water quality standards for surface waters, groundwater and marine waters on and off the Reservation.
- d. Develop a water conservation and supply allocation program.
- e. Work to reduce the water pollution impacts of off-Reservation sources upon on-Reservation systems.

4. Goal (Water Resources - Lakes):

To protect, conserve and enhance the freshwater lakes of the Reservation.

Objectives:

- a. Maintain and enhance Tribal access to all Reservation lakes.
- b. Maintain the 100 foot undisturbed buffer around all lakes within the Reservation.
- c. Prevent further shoreline development around Lake Agnus, Fryberg Lake and Mary Shelton Lake and maintain the existing buffers.
- d. Provide Tribal park-like access on John Sam Lake.
- e. Continue to utilize Ross Lake in its current natural setting.
- f. Prevent the un-natural acceleration of eutrophication of all Reservation lakes.

5. Goal (Water Resources - Rivers):

To protect, conserve, and enhance the fisheries resources of the Snohomish and Stillaguamish river systems of the Snohomish and Stillaguamish Rivers.

Objective:

Reduce pollution impacts and fisheries habitat loss and pursue enhancement efforts on both of these vitally important rivers.

6. Goal (Water Resources - Streams):

To protect, conserve and enhance fisheries resources of Reservation Streams while preserving their other numerous natural resource benefits.

Objective:

Increase the fisheries production contribution of Reservation streams through the creation of stream management plans.

7. Goal (Water Resources - Wetlands):

To protect, conserve and enhance the wetlands of the Reservation through the implementation of a "no net loss with a long term net gain" wetland policy.

Objectives:

- a. Conduct an inventory of all wetlands on Reservation including freshwater wetlands, tidelands and estuaries and map these areas.
- b. Develop and implement an ordinance for the protection of on-Reservation wetlands.

8. Goal (Water Resources - Groundwater):
To protect, conserve and more efficiently utilize the groundwater resources of the Reservation.

Objectives:

- a. Develop a well log data and well site location reference system and continue to update as necessary.
 - b. Develop a well permitting system for all wells on Reservation.
 - c. Develop a well head protection program in accordance with the guidelines established by the U.S. EPA.
 - d. Monitor groundwater withdrawals for interference from neighboring wells and correct if necessary.
9. Goal (Water Resources - Shorelines and Tidelands):
To protect, conserve and enhance the shorelines and tidelands of the Reservation, while deriving the greatest Tribal benefit possible.

Objectives:

- a. Develop and adopt shoreline management policies for the Reservation.
 - b. Develop and adopt a shorelines management program and ordinances for the Reservation.
 - c. Review the legality of existing structures that interfere with the Tribal use of and access to tideland resources and correct as necessary.
 - d. Create a tideland work permit process to prevent the encroachment of buildings, docks and bulkheads on Tribal tidelands and the disruption of fisheries habitat or fishing seasons due to construction activity and harmful impacts.
 - e. Prioritize waterfront land use, in the event of a shortage, on the basis of being water access dependent or otherwise water related.
 - f. Establish designated anchorage areas for boats to prevent the proliferation of poorly sited and disruptive mooring buoys that interfere with Tribal fishing.
10. Goal (Fisheries - General):
To preserve, protect and enhance fisheries resources and fisheries habitat in accordance with Tribal rights and responsibilities as guaranteed by the Treaty of Point Elliot, and to ensure the full harvest of the Tulalip Tribes' treaty share by Tribal fishermen on Reservation including Tulalip Bay and within the Tribes' Usual and Accustomed Fishing Areas for Salmon, Shellfish and other species.

Objectives: (Fisheries - General):

- a. Regularly inventory the fisheries resources and habitat of the Reservation using best available methods to determine factors limiting fisheries production and to develop programs for enhancing these resources.

- b. Conduct harvest management programs in coordination with other international, national, Tribal and State management entities including the Pacific Salmon Commission as established by the Pacific Salmon Treaty, the Pacific Fisheries Management Council, other Treaty Tribes, Intertribal organizations, the Washington State Department of Fisheries (WDF) and the Washington State Department of Wildlife (WDW).
- c. Work closely with WDF and WDW to predict run sizes and regulate harvest regimes to establish and achieve allocation and escapement goals.
- d. Maintain and operate the Tulalip Hatchery for the purpose of enhancing the fisheries resources of the Tulalip Tribes Usual and Accustomed Fishing Areas on-Reservation including Tulalip Bay.
- e. Raise enough fish at the Tribal Hatchery to meet production goals and target release dates based on sound biological parameters, available facilities, funding and harvest management constraints.
- f. Bring additional water, via pipeline, to the Hatchery for the purposes of increasing fish production.
- g. Evaluate the feasibility of developing new aquaculture projects for the Reservation.
- h. Review proposed development projects for the Reservation to ensure that potential impacts to fisheries resources and habitat, including shoreline areas important for Salmon rearing and mitigation are minimized.
- i. Evaluate the feasibility of installing additional fish rearing facilities on Reservation, including but not limited to rearing Chum and fall Chinook on Quilceda and Sturgeon Creeks.

11. Goal (Fisheries - Shellfish):

To protect and enhance the shellfish resources of the Tulalip Reservation.

Objectives:

- a. Identify and inventory the shellfish resources of the Reservation.
- b. Obtain certification for Reservation beaches from the Washington State Department of Health to allow enhancement and commercial harvest of on Reservation shellfish resources.
- c. Develop and implement a harvest management plan for shellfish on Reservation.

12. Goal (Forestry):

To develop and maintain an economically viable and sustainable forestry program which does not adversely impact other natural resources of the Tulalip Reservation.

Objectives:

- a. Conduct an inventory of the standing timber resource on Indian lands on Reservation and determine which lands on Reservation are best suited for timber production and forestry management.

- b. Acquire lands, when possible, on Reservation that have been identified as best suited for timber production.
 - c. Develop and implement a Forestry Management Plan for the Reservation.
 - d. Evaluate and utilize best forestry management practices, which will be site specific, to eliminate adverse environmental impacts from timber harvesting and result in the greatest yield possible.
 - e. Identify sites and opportunities suitable for Tribal firewood cutting and regulate such cutting to prevent adverse environmental impacts.
 - f. Develop a "Right to Forestry" ordinance.
13. Goal (Plants and Animals):
To protect, conserve and enhance the plant and animal resources of the Reservation.
- Objectives:
- a. Identify which species of plants and animals are of the greatest use and benefit to Tribal members and conduct inventories of those species of interest.
 - b. Identify which species of Tribal interest are threatened or endangered and prepare an appropriate management plan to protect those species.
 - c. Develop, adopt and implement a management strategy and the ordinances necessary to protect, conserve and enhance all plant and animal resources of the Reservation.
 - d. Develop an open space network of wildlife corridors consisting primarily of wooded areas, steep slopes, floodplains, streams, wetlands, and beaches through which wildlife can move freely and easily.
 - e. Encourage linking open space corridors with those existing outside the Reservation and develop passage points where man-made barriers, such as Interstate 5, prevent such passage.
 - f. Identify and map eagle and heron nesting and feeding sites and develop management tools to protect these sites.
14. Goal (Earth Materials):
To protect, conserve and allocate the earth materials resources of the Reservation as necessary, to fulfill the purposes for which the Reservation was created.
- Objectives:
- a. Identify where sand, gravel and beneficial soil resources exist on Reservation that could be economically extracted, if desirable or necessary, in a sound environmental manner to meet Tribal needs.
 - b. Develop an extraction management plan for earth materials where found and approved for extraction by the Tulalip Tribes.
15. Goal (Cultural and Historical):
To protect, conserve and interpret the cultural and historical resources of the Reservation.

Objectives:

- a. Inventory the cultural and historical resources of the Reservation.
- b. Develop, adopt and implement a management plan for the protection of cultural and historical resources of the Reservation.

D. SENSITIVE LANDS

1. Goal:

To identify, protect, conserve and enhance the Sensitive Lands areas of the Reservation.

Objectives:

- a. Establish specific criteria for the classification of lands and aquatic resources on Reservation as "Sensitive Lands".
- b. Inventory Sensitive Lands and create a map of these areas on Reservation.
- c. Adopt and implement a Sensitive Lands development policy and ordinances necessary to protect the resource.
- d. Develop enforcement procedures adequate to ensure compliance with environmental and Sensitive Lands protection policies and ordinances.

E. LAND USE

1. Goals:

To preserve the essential Indian character of the Reservation.

To plan the orderly physical development of the Reservation.

To designate a suitable land base appropriate for meeting the Tribal and community needs for housing, commerce, industry, forestry, agriculture, recreation and conservation.

To protect, conserve and enhance the environmental quality of the Reservation; maintaining substantial natural resource management areas for present and future generations.

To preserve the cultural and historically important features of the Reservation.

To maintain the undeveloped interior heartland of the Reservation for natural resource management use; especially the hatchery and Tribal well head protection areas, which are considered closed to development.

To develop a land locked relief strategy that will establish a means of access to parcels not having an established right of way for ingress, egress and utilities.

To develop and adopt appropriate ordinances for the management and implementation of the Tulalip Comprehensive Plan.

To prevent the serious impacts that would result from growth and development and land use on the Tulalip Reservation, absent exercise of Tribal regulatory zoning authority to effectuate the goals and policies reflected in this Plan, and which would imperil Tribal political integrity, economic security, and the health, safety and general welfare of the Tribes and its members, as well as that of other Reservation residents.

Objectives:

- a. Develop and adopt a revised land use Zoning Ordinance, permitting systems and enforcement mechanisms.
- b. Develop and adopt a revised land clearing, grading and drainage policy, building code, road standards, land locked relief and community services, and infrastructure improvement plans.

F. CIRCULATION

1. Goal:

To implement the recommended improvements as described in Chapter 9 (Circulation).

Objective:

Identify funding and implementation mechanisms necessary for completion of the recommended improvements.

2. Goal:

Encourage local and regional public transportation systems which contribute to the relief of traffic congestion, promote energy conservation, and enhance mobility for the community.

Objectives:

- a. Ensure that developments, through the established permit process, are designed to be compatible with public transportation.
- b. Adopt parking policies that encourage the efficient use of existing parking and permit the establishment of commuter parking that facilitates High Occupancy Vehicle modes of travel.
- c. Encourage land use patterns that direct higher density and mixed use development to corridors that are served by public transit.

- d. Enhance the safety and practicality of travel by bicycle, particularly for travel that would otherwise be via single occupancy vehicle.

G. UTILITIES

1. Goal:
To implement the recommended improvements as described for each utility in Chapter 10 (Utilities).

Objective:

To identify funding and implementation mechanisms necessary for completion of the recommended improvements.

H. HOUSING

1. Goals:
To preserve the Reservation as a permanent homeland for Tulalip Tribal members.

To provide appropriate housing to meet Tribal housing needs.

To encourage infilling of existing residential areas where services and site suitability allow.

To develop multiple unit, institutional and clustered housing to provide the lowest possible housing cost for groups and individuals unable to afford or manage care of a single family house.

Objective:

- a. Identify funding and implementation mechanisms suitable for achieving the above goals.
- b. Project future tribal member population so that housing needs for the next 25 years can be anticipated.

APPENDIX A
TULALIP TRIBES INTERIM SENSITIVE LANDS DEVELOPMENT POLICY:
CONDITIONS

1. Tribal Review Process:

For all conditions below that require case-by-case definition, the terms of the condition shall be reviewed by the Department of Environment and the Tulalip Tribes Executive Director of Economic and Community Development and approved by the Tulalip Tribes Chief Executive Officer. As to proposed projects on trust or restricted Indian lands, a Tribal permit is required pursuant to Tulalip Ordinance No. 35.

2. Buffer Zone:

An undisturbed buffer zone with a minimum width of 100' to 200', width to be determined by the Tulalip Tribes based on analysis of conditions such as slope, stream flow, and proximity to Tribal fish rearing facilities, shall be maintained:

- a) On all streams¹ (buffer to be maintained on both sides of waterway).
- b) On all wetlands and marshes (buffer to be maintained on all sides).

The purposes of this buffer zone include filtration of water pollutants, reduction of erosion and sediment problems, protection of stream canopies necessary to maintain cool water temperatures, provision of habitat for fish and wildlife, and absorption of high water flows.

In this undisturbed buffer zone no clearing, grubbing, filling, pasture of livestock, placement of septic system drainfields, placement of temporary or permanent structures, or other disturbance of vegetation or soil shall occur including the application of pesticides, herbicides or fungicides.

3. Chemical Management Practices:

No chemical management practices, including but not limited to chemical turf, vegetation, or habitat management shall be allowed without the concurrence of the Tribes.

4. Construction Practices:

Erosion measures which are sufficient to prevent sediment transport to surface waters shall be employed during any construction or grading activities with concurrence of the Tribes.

¹Streams are defined as any perennial or intermittent natural watercourses.

5. Fish or Aquatic Organisms:

No fish or other aquatic organisms shall be introduced into streams, wetlands, or marshes.

6. Hydraulic Projects (Excluding Bridges):

No hydraulic projects, including but not limited to culverts, fill, diversions or waterwheels, shall occur in any streams, wetlands, or marshes without the concurrence of the Tulalip Tribes.

7. Bridges:

- a) Prior to construction all bridge designs, including footbridge design, shall have the written concurrence of the Tulalip Tribes.
- b) Bridge construction shall occur within a time frame identified in writing by the Tulalip Tribes.
- c) Bridge maintenance or replacement shall occur only after written consent has been obtained from the Tulalip Tribes.

8. Hookup to Tribal Water and Sewer:

All subdivision dwelling units shall hook up to Tribal water and sewer service at such time as each of these services becomes available. Use of wells and septic systems shall be discontinued subsequent to hook up to Tribal water and sewer services.

9. Submittal of Well Logs:

A copy of well logs as prepared at the time of drilling shall be submitted to the Tulalip Tribes.

10. Installation of Water Meters:

Water meters shall be installed on all individual and community wells (wells with two or more hookups). The Tribes shall have a right of access to read meters following due notification to the landowner.

11. Septic System Maintenance:

Septic Systems shall be pumped once every five years.

12. Tribes Reserved Water Right:

The Tribes reserves the right to restrict water use on the Reservation if it determines that such use does or will interfere with the Tribes reserved water rights and/or the Tribes' health, safety or welfare. The Tribes reserves the right to determine whether water within the Reservation is excess and available for appropriation. The Tribes objects to state regulation of water withdrawals within the Reservation. Any state issued permit should specifically recite that it is subject to the prior and paramount water rights of the Tribes. Off-Reservation water use which interferes with the Tribes' reserved rights should also be prohibited. The Tribes water right encompasses both sufficient water quantity and water quality to fulfill the Reservation's purposes.

13. Lands of Archaeological, Cultural and Religious Significance:

The Tribes expect stringent development controls on lands of cultural, archaeological, and religious significance, and will apply all appropriate federal and state statutes and regulations.

14. This Response not be Construed as a Waiver of Jurisdiction:

Nothing herein shall be construed as a waiver of Tribal jurisdiction on lands and waters within the exterior boundaries of the Tulalip Tribes, nor a waiver of the Tribes right to comment on other issues or concerns.

APPENDIX B TULALIP TRIBES ECONOMIC DEVELOPMENT PROGRAM

A. ECONOMIC OVERVIEW

The Tribes have historically managed natural resources in a manner to provide a cornerstone in creating or expanding Indian business enterprises. These enterprises were developed to achieve specific goals, e.g., expanding employment opportunities, delivering training and skills enhancement positions, developing positive cash flow / return on investment, and enabling the generation of net income or "seed capital" for additional enterprise development. During the 1980's the Tribes' reliance upon natural resource utilization evolved through the placement of emphasis upon directly related economic niches: taxation, land use / development, tax exempt bond financing, and real estate location and rent structures. For example, while continuing the emphasis on fisheries enhancement activities and the preservation of commercial fish stocks in order to produce and harvest the resource, the Tribes also fostered fish processing and salmon marketing enterprises to take advantage of the economic niche surrounding the resource. The Tribes business development and diversification efforts have paralleled the accelerating growth of the central Puget Sound region and the significant increase in economic development potential in the immediate area. The northward movement of people, manufacturing, distribution and services, and investment capital has coincided with emerging opportunities created by the U.S.-Canadian Trade Agreement which is inducing commercial and manufacturing development along the Interstate - 5 Corridor.

B. ECONOMIC DEVELOPMENT STRATEGY

The Tribes economic development strategy is to maximize the utilization of location and natural resources (land, timber and salmon product) for the creation of Tribal and Tribal member business entrepreneurship. While the strategy is based upon the physical attributes of the land base, its implementation is directed at achieving the goals and objectives established by Tribal policy. Economic goals are statements about opportunity, participation, preference, value of work and products. Objectives specify the who, what, when, where, how and how much. The goals and objectives of economic development are complimentary to those of the Comprehensive Plan.

C. ECONOMIC DEVELOPMENT PROGRAM IMPLEMENTATION

Tribal policy provides/defines the strategy (location and product), establishes the goals (increased economic opportunity) and objectives (specified gains in employment and net income), and sets the project priority. An Economic Development Program/Project will pass through some or all of the sub-paragraphs in the implementation process which is described in the following eleven steps. Note: These steps are often complementary and occur concurrently.

1. **Broad Brush Project Feasibility Analysis** is assessed (feasibility, capability and acceptability - organization and community). Preliminary determination of policy and whether project will meet goals and reach objectives if implemented.
2. **Preliminary Project Organization** is developed (allocation of project officers, line and staffing positions and budget estimation to manage all project phases).
3. **Specific Project Feasibility Analysis** is drafted (financing method, debt/equity structure, ROI, capitalization requirements understood) and scheduling completed.
4. **Project Financing/Methodology Analysis** (local commercial bank loan, tax exempt bond financing, joint-venture financing or income stream pledge for security) is implemented.
5. **Development Project Organization Selected** (allocation of officer, line and staffing positions to manage the projects in all phases) and Project Officers designated.
6. **Project Development** (implementation of design and construction) occurs based upon the delegation of responsibility and authority from No. 5 above.
7. **Concurrent Employment and Skills Enhancement - Construction** (solicitation is issued to the community and individuals selected with the design of facilities to enable a smooth transition to work force employment in construction projects).
8. **Concurrent Employment and Skills Enhancement - Operations** (solicitation is issued to the community and participants selected in areas of project operations to ensure smooth transition to start-up and profit generation).
9. **Project Management and Evaluation** (continuous iterative management review occurs in all areas of operation, financing, maintenance and corrective actions taken as required).
10. **Project Financial Pro Forma/Cash Flow Analysis** (reaffirm net profit and revenue generation in the operating phase) provides for the "Stripping of Excess" net revenue as seed capital for other development programs.
11. **Broad Brush Project Feasibility Analysis** (policy, goals, and objective determination for new ventures as discussed in No. 1 above) for allocation of seed capital to design and construction of other projects.

APPENDIX C
POPULATION STATISTICS

TABLE C-1
TULALIP RESERVATION POPULATION PROJECTIONS

	<u>TRIBAL RESIDENTS</u>	<u>NON-TRIBAL RESIDENTS</u>	<u>TOTAL RESIDENTS</u>
1990	1,357	5,899	7,256
1991	1,425	5,988	7,413
1992	1,496	6,232	7,728
1993	1,571	6,174	7,745
1994	1,650	6,309	7,959
1995	1,733	6,389	8,122
1996	1,820	6,466	8,286
1997	1,911	6,537	8,448
1998	2,007	6,602	8,609
1999	2,107	6,664	8,771
2000	2,212	6,670	8,882

Projections were accomplished by:

1. Subtracting 1990 Census data tribal population from 1990 Census total population to get non-tribal population;
2. Adjusting the 1990 tribal figure by averaging Census and tribal enrollment figures;
3. Adding adjusted tribal figure to 1990 Census non-tribal population for adjusted 1990 total population;
4. Calculating the % difference between the original Census total population and the adjusted figure for 1990;
5. Adding that percent difference to County projections for each year;
6. Applying a 5% annual growth rate to tribal population;
7. Subtracting tribal population (obtained in step 6) from total to get non-tribal population for each year;
8. Adding 50 people per year to the non-tribal figures from 1994 through 1999 to account for projected Navy impacts.

TABLE C-2
SNOHOMISH COUNTY
1990 AGE DISTRIBUTION*

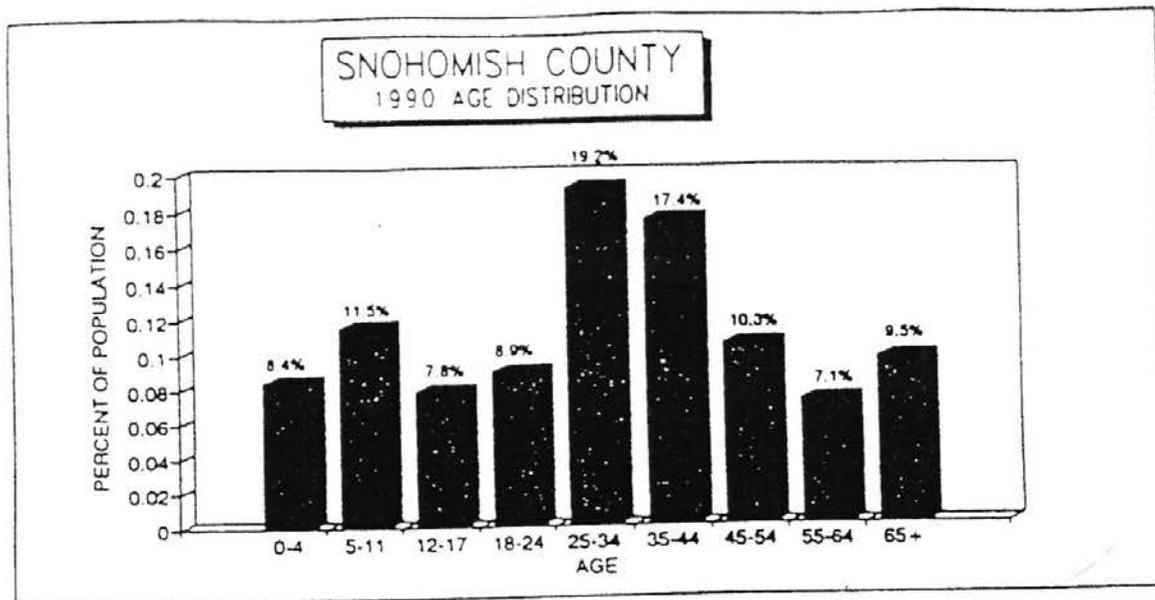
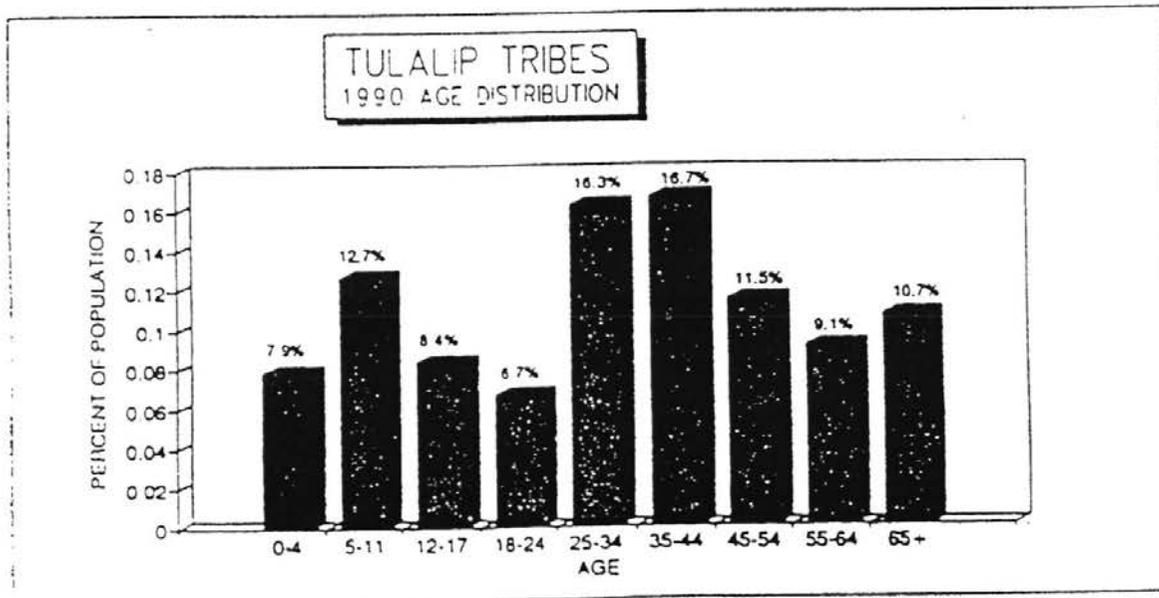


TABLE C-3
TULALIP TRIBES
1990 AGE DISTRIBUTION*



* 1990 U. S. Census Bureau

APPENDIX C: POPULATION STATISTICS

TABLE C-4
SNOHOMISH COUNTY
1986 AGE DISTRIBUTION*

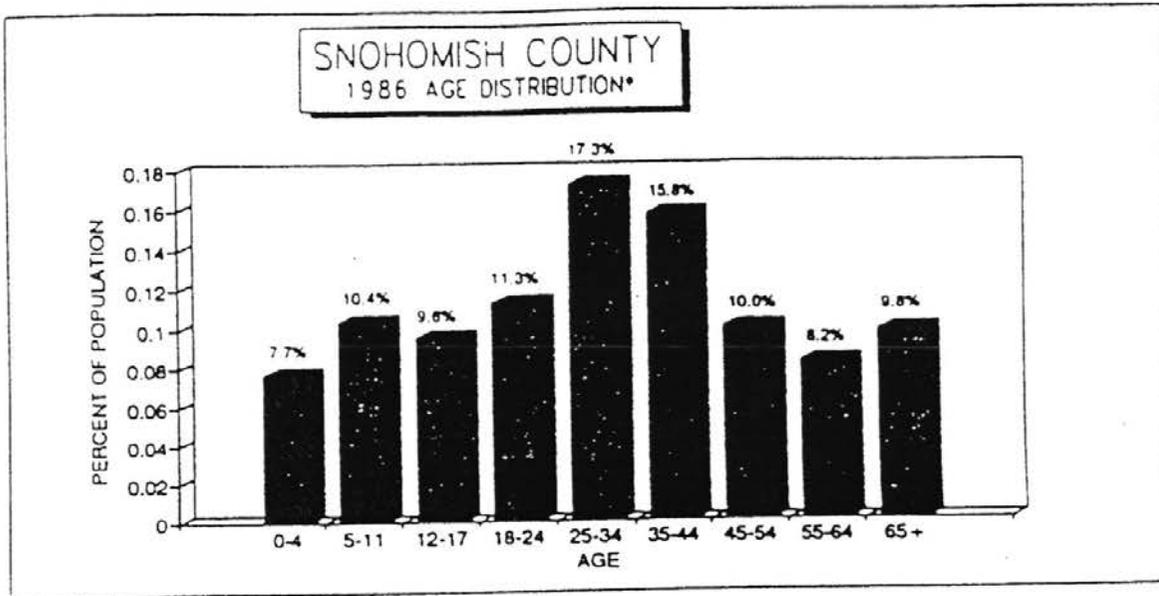
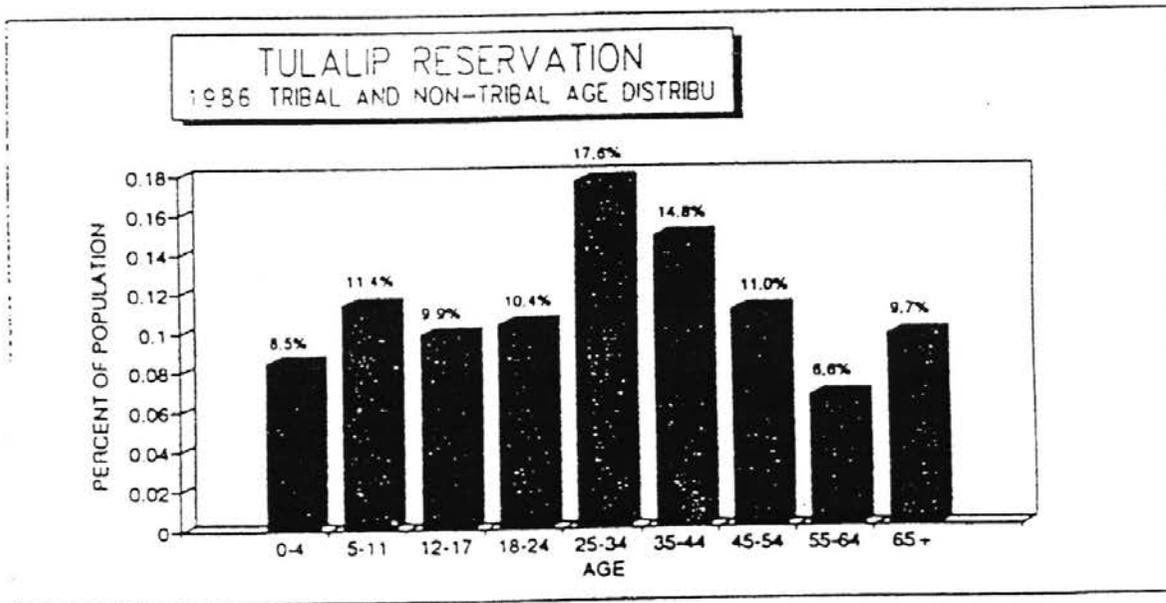


TABLE C-5
TULALIP RESERVATION
1986 TRIBAL AND NON-TRIBAL AGE DISTRIBUTION*



*Estimates from 1986. Source: 1989 Annual Demographic Trends and Forecasts Snohomish County Planning Division, November 1989.