



Aerial Photo of the Tulalip Reservation, 2006

## **CHAPTER 2: LAND USE**

### **Background**

As the exclusive homeland for the Tulalip Tribes, the Tulalip Reservation consists of approximately 22,500 upland acres and Tribal tidelands. This represents a limited land base as the Reservation is limited to the exterior boundaries as they now exist. This is in stark contrast with cities in Washington state, required to plan under the Growth Management Act. These cities can expand Urban Growth Areas when there is not enough land available to accommodate forecast population and employment growth.

Being finite in its land base, the Reservation does not have the same opportunity to grow as do surrounding cities. For this reason, proactive planning for growth on the Reservation is a necessity. Accommodating more people and jobs within these approximately 22,500 acres requires that the Reservation land base be used wisely as development pressures persist.

To anticipate what future land uses will be needed on the Reservation by 2030 (the planning horizon for this Plan) employment and population forecasts were used. Also figured into

future land uses are existing locations of development, plans for housing, infrastructure improvements, and opportunities for development as well as cultural and environmental constraints that limit where development should occur. Considered together, all of these factors lead to the determination of what is the best pattern for preservation and development on the Reservation.

The Tulalip Tribes seek to maintain a balance between competing land uses within the Reservation boundaries to guide growth where it is most appropriate. The Land Use Chapter includes an analysis of land development needs and trends in relation to the goals and objectives of the Tribe. The result of this analysis is the Future Land Use Map (**Map 2-9**) which anticipates residential, commercial, mixed-use, recreational, industrial, institutional, agricultural, resource areas, and protected conservation areas. This map is essentially a projected “snapshot” of the Reservation 20-years in the future and acts as a guide for future development and conservation areas.

As an additional analysis tool, Planning Districts are created that delineate Reservation lands into five areas and inventories the land uses within each district. Within each Planning District, acreages are calculated to show amount of ground-disturbed areas, sensitive areas, drainage basins, and forestry areas. Together, these and other factors are examined to evaluate the appropriateness of development and conservation within each Planning District.

## **Population Density**

Population density within the various Reservation land use designations is determined by the intended and desirable land use in addition to soil suitability for septic systems and infrastructure availability. Higher densities are allowable when access as well as adequate utilities are available. Higher densities are more cost effective for the extension of water, sewer, electrical services, and transportation corridors. Higher density allowances within the Reservation serve to further preserve the limited land base for future generations and growth.

As of 2009, over 13,000 (~60%) of the approximately 22,500 Reservation acres are owned by the Tribe or individual Tribal members. The remaining acreage is owned by non-Tribal members.

The non-Tribal demand for housing on the Reservation is currently growing at a slower rate due to density restricted development on Fee Simple land. Previous zoning designations allowed smaller lots and higher residential density on Fee Simple lands than is allowed currently, especially on properties near Possession Sound. Non-Tribal supply of housing is also being reduced as Tribal leases with non-Tribal members are not being renewed.

As the population grows in the future, large lot residential development has the potential to consume the Reservation’s developable land base at an increased rate; thus exacerbating development pressure upon less suitable and environmentally sensitive sites.

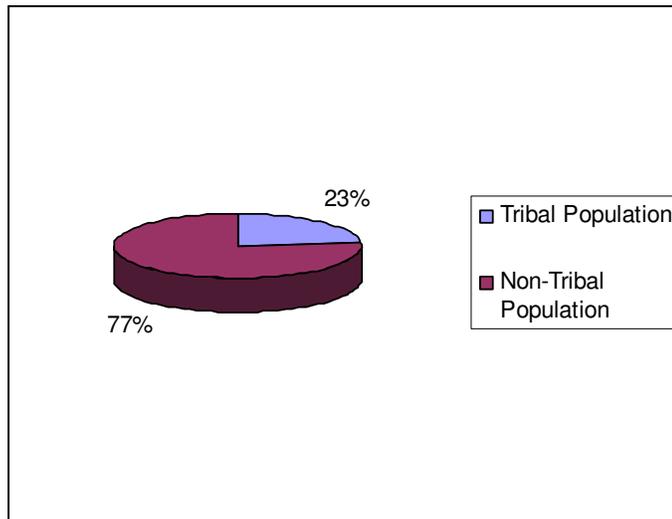
There are challenges in maintaining quality-of-life while developing higher densities on the Reservation. While traditional Tribal housing was multi-generational and included extended

families, more recent housing patterns have created a large proportion of single-family houses. Even though single-family houses are the preferred form of housing for many, a diversification of housing types should be introduced to meet future demands. These housing types include: single-family houses, apartments, townhouses, manufactured homes, clustered/village housing, and accessory dwelling units. Higher-density housing should include parks, open space, and other amenities to make these areas attractive and inviting places to live. By providing housing options in type, location, and size the Reservation will better meet future needs of an expanding population.

## **Existing Tribal Population and Housing on the Reservation**

Demographic data provided by the Tulalip Tribes Enrollment Department states that in the year 2000, 23% of the population on the Reservation was Tribal and 77% was non-Tribal (**Figure 1**). The Reservation experienced a 3% annual growth rate of Tribal members and non-Tribal members between 1990 and 2000.

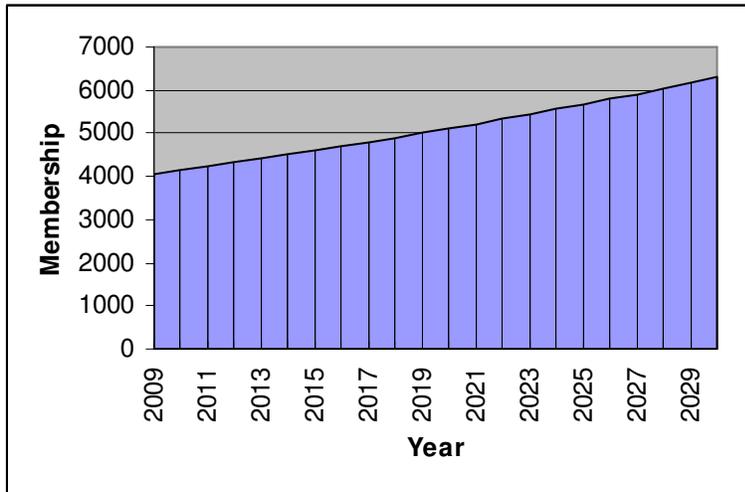
**Figure 1 : Reservation Population in 2000**



Source: 2000 U.S. Census

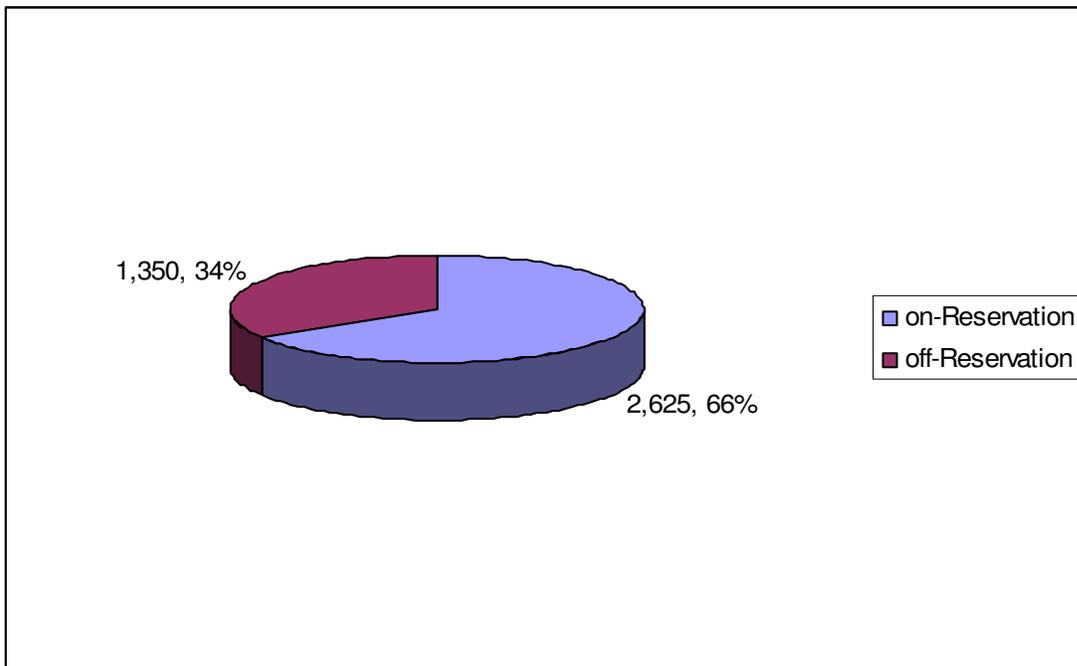
Based on the 2008 Enrollment Statistics Report from the Tulalip Tribes Enrollment Department (**Figure 2**), Tribal member population is expected to increase by over 2000 people from 4,063 in 2009 to 6,287 by the Year 2030. The off-Reservation Tribal member population constitutes approximately 34% of the population while on-Reservation Tribal members represent 66% of the Tribal population (**Figure 3**). Assuming current on-Reservation versus off-Reservation living status remains constant; it can be expected that 4,149 Tribal members will live on-Reservation by 2030 with 2,138 living off-Reservation. Whether or not the Tribal member population increase occurs exactly as forecast, the population is expected to increase, thus placing residential and commercial development pressure upon limited Reservation resources.

**Figure 2 : Tribal Population Projection to 2030**



Source: Tulalip Tribes Enrollment Department, May 2009

**Figure 3 : Tulalip Tribal Member On vs. Off-Reservation, 2008**



Source: Tulalip Tribes Enrollment Department, April 2009

## **2030 Tribal Residential Projections**

As of October 2007, there were approximately 300 households on waiting lists for Tribal housing. Based on the 2001 Tribal housing survey, it is estimated there are another 200 households living in overcrowded conditions.

Expanding population on the Reservation means there will be a need to provide housing opportunities for future residents of the Reservation. To do so, a variety of housing types will be required. Housing needs correspond directly with population projections, and the accommodation of housing will depend greatly upon the policies of the Tribe to meet future housing needs of Tribal members. Meeting these needs will ensure that every Tribal member wanting to live on the Reservation is provided an opportunity to do so.

**Map 2-1** shows the 3,358 acres of land in residential use on the Reservation. Residential development is primarily located around the perimeter of the Reservation and accounts for approximately 15% of the Reservation’s ground-disturbed areas. Generally, lot sizes are smaller towards the perimeter and larger toward the interior.

The Puget Sound Regional Council (PSRC) projects population for the Reservation, including persons per household out to the Comprehensive Plan horizon of 2030. While these projections are not ethnicity-specific, the projection of total persons per household can be applied – along with projected Tribal population growth on-Reservation – to determine how many dwelling units will be necessary to accommodate the future Tribal population wishing to reside on the Reservation.

While 2000 Census data indicated 2.80 persons per household on the Reservation, PSRC projects that household sizes will decrease to 2.53. The 2.53 figure is derived from dividing the total households projected in 2030 (5,724) by the total household population (14,501).

**Table 1** shows the projected dwelling units necessary for Tribal members on the Reservation in the year 2030.

**Table 1 : Projected Tribal Member Housing Need to 2030**

Tribal on-Reservation Population Projection	4,149
Total persons per household projected	2.53
Total Dwelling Units Needed (Tribal Population Projection/Persons per Household Projection)	1,640

Source: Community Development Department, May 2009

The total dwelling units needed for Tribal members in 2030 includes not only new construction, but replacement of housing, as some residences will be demolished. To provide for future housing needs, land will need to be provided to accommodate for Tribal dwelling units on the Reservation.

For purpose of illustration, **Table 2** identifies the total land base needed to provide for 1,640 Tribal dwelling units. The table ranges from 5-acre lots to 10 dwelling units/acre.

At the far extreme low-density scenario of all Tribal residences being built on 5-acre lots (.20 dwelling units/acre), over 1/3 of the total Reservation upland land base would be used for housing (8,200 Acres/22,550 Acres). At the other extreme scenario of creating a dense residential environment with 10 dwelling units/acre, less than 1% of the total Reservation upland land base would be used for Tribal housing.

**Table 2 : Example of Expected Acreage Needed Depending on Residential Densities**

<b>Dwelling Unit Densities</b>						
	.20/Acre*	.5/Acre**	1/Acre	2/Acre	4/Acre	10/Acre
Acres Necessary	8,200	3,280	1,640	820	410	164

Source: Community Development Department, May 2009

\*1 dwelling unit per 5 acres.

\*\*1 dwelling unit per 2 acres.

The average housing density of Tribal residences will fall within the extremes of 5-acre and .10-acre lots. Different housing types will occupy varying amounts of land, with single-family houses generally consuming more land than multi-family housing units. Given this difference, there are still opportunities to cluster single-family houses to retain open space and limit the sprawl of housing developments.

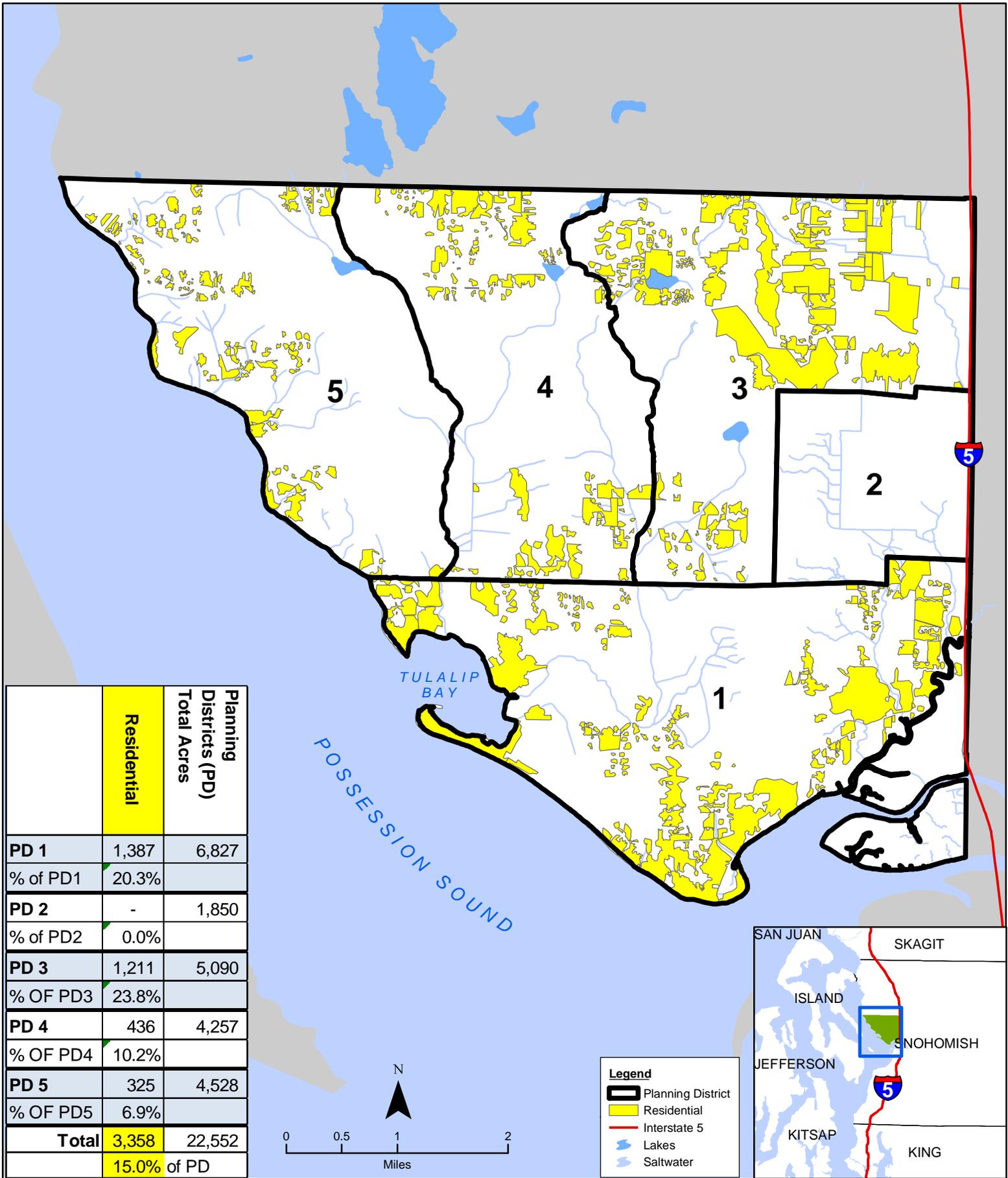
Another factor that will affect the total amount of housing on the Reservation is the growth in non-Tribal housing. PSRC forecasts there will be a total of 5,724 total households in 2030 (total residences minus vacancies). This is a significant increase from the 3,313 total households identified on the Reservation in the Year 2000.

## **2030 Residential Land Use Projections**

Residential densities for the Reservation vary depending on the land use designation. The following designations are used for residential land uses:

- Low Density Residential
- Medium Density Residential
- High Density Residential

As is evident by the names of the residential land use categories, the level of density of residences is expected to vary in different parts of the Reservation. **Table 3** through **Table 5** show densities evaluated and chosen to represent each of these categories. The PSRC forecasts a total of 5,724 households by 2030 (total housing units minus vacancies). It is anticipated that in 2030 the greatest number of housing units will exist in Medium Density Residential areas (4,117), with fewer housing units occurring in High Density Residential areas (1,010), and the least number of housing units appearing in Low Density Residential areas (597). Densities are calculated using gross acres, which do not include the subtraction of critical areas and buffers, roadways, and stormwater detention which all limit developable land for housing. Examples of one dwelling units include: one single-family house, one apartment, or one condominium.



**Map 2-1 Residential Ground-disturbed Areas**



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**Table 3 : Low Density Residential Development Pattern**

	Lower Density <span style="font-size: 1.2em;">→</span> Higher Density		
Residential Category	1 Unit/10 Acres	1 Unit/5 Acres	1 Unit/2.5 Acres
<b>Low Density -</b> 597 Units	8,430 Acres*	2,985 Acres*	2,108 Acres*

Source: Community Development Department, May 2009

\*Acreages were rounded to the nearest whole number.

**Table 4 : Medium Density Residential Development Pattern**

	Lower Density <span style="font-size: 1.2em;">→</span> Higher Density		
Residential Category	2 Unit/Acre	4 Unit/Acre	6 Units/Acre
<b>Medium Density -</b> 4,117 Units	1,866 Acres*	1,029 Acres*	562 Acres*

Source: Community Development Department, May 2009

\*Acreages were rounded to the nearest whole number.

**Table 5 : High Density Residential Development Pattern**

	Lower Density <span style="font-size: 1.2em;">→</span> Higher Density		
Residential Category	8 Units/Acre	10 Units/Acre	12 Units/Acre
<b>High Density -</b> 1,010 Units	189 Acres*	101 Acres*	126 Acres*

Source: Community Development Department, May 2009

\*Acreages were rounded to the nearest whole number.

After evaluating the range of densities for housing, medium range densities were selected as preferred densities, and are highlighted in yellow in **Table 3** through **Table 5**. These medium density targets represent a balance between using Reservation land resources and infrastructure wisely while providing acceptable densities and types of housing opportunities to meet projected housing needs to 2030.

The preferred residential densities are as follows:

- 2,985 acres of Low Density (597 Housing Units at 1 Unit/5 Acres)
- 1,029 acres of Medium Density (4,117 Housing Units at 4 Units/Acre)
- 101 acres of High Density (1,010 Housing Units at 10 Units/Acre)

These residential densities are the average densities for these land use designations. While the development regulations will dictate the maximum allowable densities within each zone, the residential forecast within the Comprehensive Plan seeks only to anticipate how many residences will exist on appropriate lands of the Reservation.

**Map 2-9**, the Future Land Use Map, depicts areas for future low, medium, and high density residential development on the Reservation. Housing forecasts can be accommodated through Reservation lands designated for housing.

## **2030 Employment Projections**

**Table 2-6** shows population and employment estimates for the base year 2008 and forecasts employment growth to 2030.

The Puget Sound Regional Council does not base projections on Tribal or non-Tribal status, instead calculating for the population as a whole. For this reason, Tribal members are included within the total projections. The following is an explanation of each PSRC employment category:

- RETAIL – Retail Trade
- FIRES – Finance, Insurance, Real Estate, and Services
- MANU – Manufacturing
- WTCU – Wholesale Trade, Transportation Services, Communication, and Utilities
- GOV/ED – Government and Education
- TOTEMP – Total Number of Jobs

**Table 6** shows PSRC's employment forecast for 2008 and a forecast for future employment on the Reservation in 2030.

**Table 6 : 2008-2030 Forecast Employment Estimates**

Year	RETAIL/FIRES/Gaming	MANU/WTCU	GOV/ED*	TOTEMP**
2008	4,772	797	1,318	6,887
2030	9,584	1,667	2,639	13,890

Source: Puget Sound Regional Council, Community Development Department, 2009

\*PSRC places gaming-related jobs into the Government and Education sector but these jobs have been moved into commercially-oriented employment types (Retail/FIRE/Services) which is more representative of their land use function.

\*\*Total employment numbers do not reflect most agricultural, resource, and construction jobs. The reason for this is that these jobs are highly mobile – are not confined to one geographic area. Examples of this are home remodeling businesses doing work at houses around the region, and fishermen based out of Seattle that actually work in Everett. While the jobs generate revenue that is brought into the area, the employment is not necessarily taking place in the area.

The employment forecast shows more than a doubling in growth from 6,887 to 13,890. This represents 7,003 new jobs on the Reservation by 2030. While seemingly significant, this employment growth is consistent with recent years and is the result of robust economic activities on the Reservation.

## **2030 Employment Land Use Projections**

All land uses contribute to employment in some way. The intensity of employment corresponds directly with the land use type. For example, forestry lands have a low-intensity of employment: forests are cleared, replanted, and then maintained prior to re-harvesting decades later. Other land uses have an intense level of employment – such as the retail commercial land in Quil Ceda Village.

The numbers of employees per acre can be calculated for existing conditions based upon existing number of employees in each employment category and land use types associated with that employment. **Map 2-2** shows the primary employment-related land use types on the Reservation. By analyzing these land use and employment categories, we can determine how many jobs per acre exist within employment areas.

**Table 7** shows the existing number of employees and acres of land that are devoted to non-Natural Resource and Constructed-based employment types:

**Table 7 : Employment and Land Use, 2008**

Measures	Employment Categories			
	RETAIL/FIRES/Gaming	MANU/WTCU	GOV/ED*	TOTAL**
2008 Jobs	4,772	797	1,318	6,887
2008 Acres***	397 of General Sales and Services	89 of Manufacturing and Wholesale Trade	217 of Education, Public Administration, Health Care, and Other Institutions	703 of all non-Natural Resource and Construction-based employment land uses
<b>TOTAL</b>	<b>12.0 Jobs/Acre</b>	<b>9.0 Jobs/Acre</b>	<b>6.1 Jobs/Acre</b>	<b>9.8 Jobs/Acre</b>

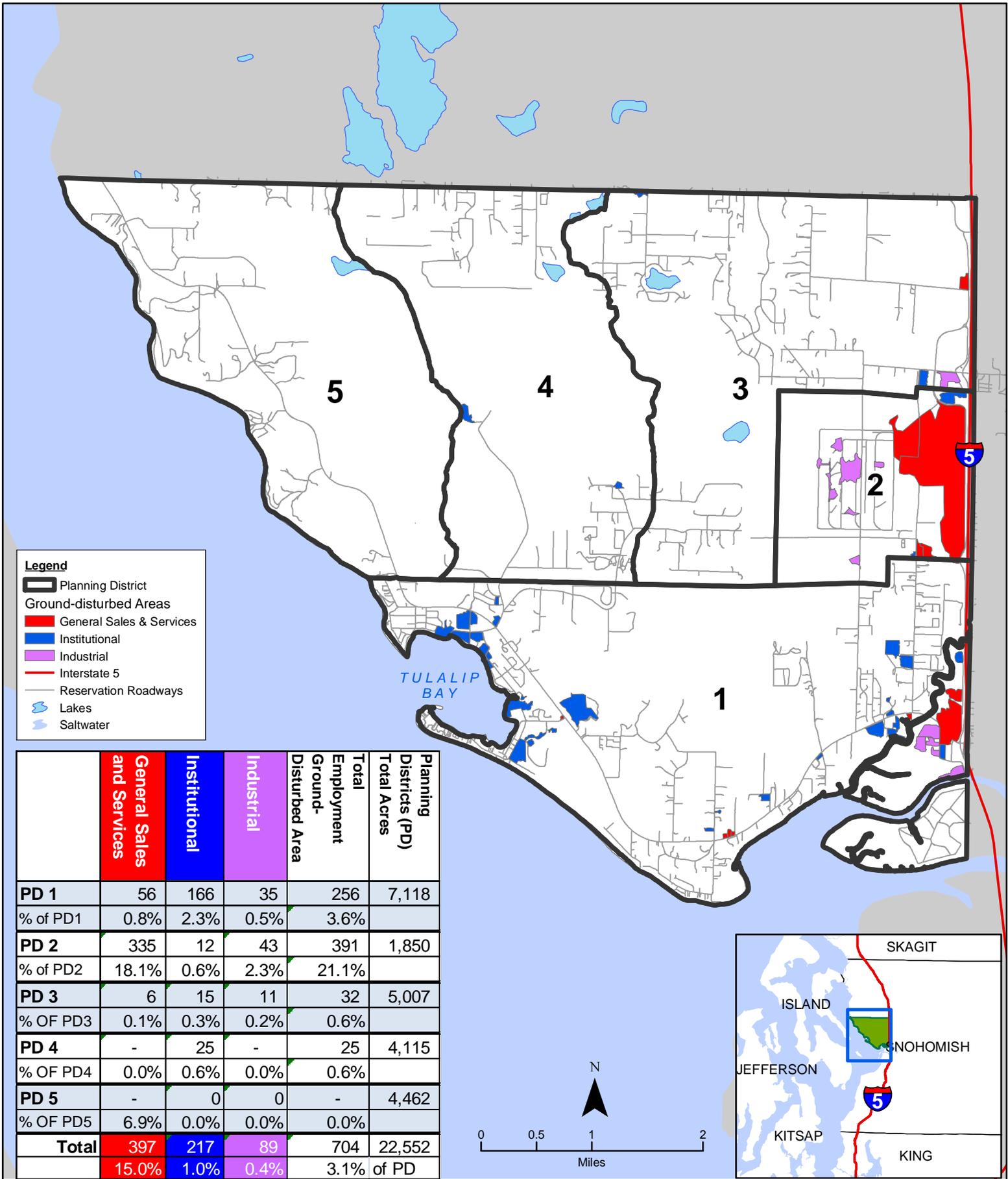
Sources: Community Development Department, Puget Sound Regional Council, Snohomish County, 2009

\* PSRC places gaming-related jobs into the Government and Education sector but for the Comprehensive Plan these jobs have been moved into commercially-oriented employment types (Retail/FIRE/Services) which have similar land use characteristics.

\*\*Total employment numbers do not reflect most agricultural, resource, and construction jobs. The reason for this is that these jobs are highly mobile – are not confined to one geographic area. Examples of this are home remodeling businesses doing work at houses around the region, and fishermen based out of Seattle that actually work in Everett. While the jobs generate revenue that is brought into the area, the employment is not necessarily taking place in the area.

\*\*\*Only acreage supportive of these employment types are identified. Categories for acreage are based upon Land-Based Classification Standards from the American Planning Association. Land use data for acreage was provided by Tulalip Data Services in October 2008.

Using these jobs/acre figures allows for projecting how much land will be necessary for these employment types to 2030. **Table 8** projects how much land will be necessary for future jobs on the Reservation:



**Map 2-2 Employment Ground-disturbed Areas**



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 May 12, 2009

Disclaimer:  
 Tulalip Data Services (TDS) provides this data "as is."  
 TDS does not make any guarantees or warranties concerning  
 the accuracy of the information contained in the geographic data.  
 TDS assumes no liability or responsibility for errors or inaccuracies.

Data Source:  
 Tulalip Tribes Community Development,  
 Tulalip Data Services GIS

Map Path: M:\GISData\Maps\Projects\CompPlan\2009\05-11-09\2-2\_PD\_Employment\_05-11-09.mxd

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**Table 8 : Land Use Acreage Forecast to 2030**

Measures	Employment Categories			
	RETAIL/FIRES/Gaming	MANU/WTCU	GOV/ED*	TOTAL**
2030 Jobs	9,584	1,667	2,639	13,890
2030 Acres ***	799 of General Sales and Services	185 of Manufacturing and Wholesale Trade	433 of Education, Public Administration, Health Care, and Other Institutions	1,417 of all non-Natural Resource and Construction-based employment land uses
<b>Totals</b>	<b>12.0 Jobs/Acre</b>	<b>9.0 Jobs/Acre</b>	<b>6.1 Jobs/Acre</b>	<b>9.8 Jobs/Acre</b>

Sources: Community Development Department, Puget Sound Regional Council, Snohomish County, 2009

\* PSRC places gaming-related jobs into the Government and Education sector but these jobs have been moved into commercially-oriented employment types (Retail/FIRE/Services) which is more representative of their land use function.\*\*Total employment numbers do not reflect agricultural, natural resource, and construction jobs. The reason for this is that these jobs are highly mobile – are not confined to one geographic area. Examples of this are home remodeling businesses doing work at houses around the region, and fishermen based out of Seattle that actually work in Everett. While the jobs generate revenue that is brought into the area, the employment is not necessarily taking place in the area.

\*\*\*Only acreage supportive of these employment types are identified. Categories for acreage are based upon Land-Based Classification Standards from the American Planning Association. Land use data for acreage was provided by Snohomish County parcel shapefile in August 2007.

To meet the 2030 employment forecast, there is a need for 799 acres of commercial land (general sales and service), 185 acres of industrial land (manufacturing and wholesale trade), and 433 acres of institutional land (education, public administration, health care, and other institutions). This forecast is based upon identifying how many employees per acre exist currently on the Reservation – per appropriate LBCS category – and using that 2008 figure as an acreage multiplier for the jobs projected in 2030.

Recent developments completed in 2008 and 2009, such as the Tulalip Resort Casino and Tribal government administration building, have led to concentrations of employment at Tulalip. If these trends continue to 2030, employment consolidations and higher-density employment areas will likely lead to a higher jobs/acre number thus requiring less acreage in the future for commercial and institutional land uses than what has been forecast to 2030.

The identified need for future employment land use informed **Map 2-9**, the Future Land Use Map of the Reservation.