URBAN GROWTH AREA RESIDENTIAL LAND CAPACITY ANALYSIS:

The intent of the residential land capacity analysis is to determine if urban growth area boundaries, land use designations, residential densities and lot sizes chosen adequately accommodate the County's 20 year population projection. The Office of Financial Management prepared population projections for all counties in the State. Chelan County was given three population projection scenarios, low, medium and high population projections. The County and cities believed that of the three alternatives, the high population projections most accurately reflected the current growth rate in Chelan County. The County and cities have agreed that a minimum of 60% of the projected growth should occur within the urban growth areas.

Chelan County's Land Capacity Analysis is consistent with the State Department of Community, Trade and Economic Development (CTED) report entitled "Issues in Designating Urban Growth Areas (Part I): Providing Adequate Urban Area Land Supply" (March 1992). Other sources of information included the American Planning Association Planning Advisory Service, Municipal Research Center, and Snohomish and Kitsap Counties Land Capacity Analysis.

The land capacity analysis looks at the gross acres that are available. The gross acres available excludes land with slopes exceeding 40%, floodways, lakes, rivers, railways, irrigation canals and ditches, major roads and arterials, and existing land uses other than orchard land. Orchard land was combined with vacant land to give the gross acres available. Gross acres available also excludes those areas which do not have year-round access or the reasonable potential to have year-round access in the twenty year planning period.

The formula for the land capacity analysis takes into consideration the following factors: a market factor, new streets and roads, new public facilities, and unavailable land.

A. Market Factor: a market factor should be applied to the land capacity analysis to ensure that the land supply is not unduly restricted. An urban growth area which is too tight will have an undue adverse impact on the land market, raising housing costs and limiting housing options. The prices for raw land will appreciate greatly if too few landowners control the supply of land or if demand exceeds the available land for sale at any one time. Over 25% is considered to be an excessive market factor by the Central Puget Sound Hearings Board and the State Department of Community, Trade and Economic Development (CTED) report entitled "Issues in Designating Urban Growth Areas

(Part I): Providing Adequate Urban Area Land Supply" (March 1992). For every acre of land estimated to be needed to accommodate the population forecast, an additional .25 acres should be added to keep urban land prices from rising dramatically due to speculation.

B. Streets and Roads: land area which will be needed to support future streets and roads will not be available to accommodate residential development. Within urban growth areas, 17-22% is considered to be a typical range needed for rights-of-way when major roads are not in place. In infill situations, when the basic road network is already in place, five to 12% of the net land area will likely be needed for rights-of-way. (State Department of Community, Trade and Economic Development (CTED) report entitled "Issues in Designating Urban Growth Areas (Part I): Providing Adequate Urban Area Land Supply", March 1992). Snohomish County used 15.4% for street right-of-way for urban growth areas and Kitsap County used a reduction factor of 17%.

The urban growth areas in Chelan County have a mixture of both infill and areas where no major road network exists. A reduction factor of 15% was determined to be appropriate for Chelan County for urban growth areas.

C. New Public Facilities: A percentage of land will be used for other public/non-residential land needs such as churches, cemeteries, water reservoirs, schools, parks, utility corridors, landfills, recreation, sewage and water treatment facilities, institutions, open space, etc. Snohomish and Kitsap County used a reduction factor of 15% within their urban growth areas. The Municipal Research Center stated that a typical percentage allocated for public lands was 4-7%. An APA survey of small cities (less than 100,000) found that typically 31% of the land area was allocated for public uses and infrastructure. This figure includes road right-of-way.

For Chelan County a reduction factor of 7% was felt to be appropriate, as it is within the typical range found by Municipal Research. When the new comprehensive plans are updated in five years we can determine if this average needs to be increased or decreased.

D. Unavailable Land: An unavailable land discount is factored into the land supply calculation to account for property owners who have no interest in selling or developing their land during the 20-year planning period. A reduction of 15% is applied to the land supply to account for unavailable land. A 15%reduction for unavailable land is a conservative figure, and is consistent with parameters discussed in the CTED report entitled, "Issues in Designating Urban Growth Areas (Part I): Providing Adequate Urban Area Land Supply", (March 1992). Kitsap County used a 15% reduction factor for unavailable land. Snohomish County used a range of reduction factors for land availability, 15% reduction for vacant land, and 30% for partially used and under-utilized land.

SUMMARY: Residential land capacity analysis is at best an inexact science. The field has not been around long enough to develop a model that can accurately predict how a development market will act over a 20 year period. It is also difficult to accommodate the variety of economic, social and political factors that can affect a development market. It is important to closely monitor growth and the factors involved in growth in order to determine if the land capacity analysis formula chosen can be improved upon.

RESIDENTIAL GROWTH PROJECTED FOR THE SUNNYSLOPE URBAN GROWTH AREA	R1	R3
*Gross Vacant Acreage	33.93	33.07
Safety/Market Factor: 25%	x .75 25.45	x .75 24.8
Unavailable/Underutilized: 15%	x .85 21.63	x .85 21.08
Public Purposes (7%) & Roads(15%): 22%	x .78 16.87	x .78 16.44
Residential Density Average:	x 4 67.49	x 12 197.33
Persons Per Housing Unit: ** 2.62	x 2.62 177	x 2.62 517
Total Residential Growth Projected:	694 Persons	

** Gross Vacant Acreage does not include slopes exceeding 40%, lakes, floodways, irrigation canals and ditches, roads or railways.*

*** Mean persons per housing unit for the Sunnyslope Urban Growth Area.*

RESIDENTIAL GROWTH PROJECTED FOR MANSON URBAN GROWTH AREA			
	R1	R2	R3
*Gross Vacant Acreage	82.88	154.59(+20 lots)	12.16
Safety/Market Factor: 25%	x .75 62.16	x .75 115.94	x .75 9.12
Unavailable/Underutilized: 15%	x .85 52.84	x .85 98.55	x .85 7.75
Public Purposes (7%) & Roads(15%): 22%	x .78 41.22	x .78 76.87	x .78 6.05
Residential Density Average:	x 4 164.85	x 6 461.22 + 20 lots	x 12 72.56
Persons Per Housing Unit: **1.67	x 1.67 275	x 1.67 804	x 1.67 121
Total Residential Growth Projected:	1200 Persons		

** Gross Vacant Acreage does not include slopes exceeding 40%, lakes, floodways, irrigation canals and ditches, roads or railways.*

*** Mean persons per housing unit for the Manson Census Division*