

## **Appendix C: Land Use Capacity Analysis**

This appendix is intended to provide additional technical detail to support the Comprehensive Plan Land Use Element. Relevant data and formulas used to calculate residential, commercial and industrial capacities are outlined below for Comprehensive Plan users who desire more in depth information on both City and Urban Growth Area (UGA) population and employment forecasts. Both historic and current figures are included in an attempt to generate accurate predictions based on previous development patterns as well as current circumstances. It is important that this information and analysis be updated regularly to reflect land use changes occurring within the City and UGA.

### **Land Supply Analysis**

#### **Land Supply**

Supply is the amount of land available for future growth. If the amount of land available for future growth is insufficient or is the wrong kind of land, (ie flood area, wetlands), the resulting increased prices for land discourage growth. If too much land is available, then the City may be burdened with providing expensive infrastructure and little revenue. Creating the right balance is the goal of the decision making process.

#### **Residential Capacity within the City**

The total residential net acres inside the city limits of Stanwood that are vacant, partially used or re-developable is 197.61 acres. Vacant land recently subdivided or approved for development was not included in the net acreage calculation. The *Snohomish County Buildable Lands Data* accounted for unbuildable areas, which included critical areas and utility easements. This allows for an additional 1,355 dwelling units, and 3,370 persons.

**Table APC-1 Residential Land Availability within the City**

<b>Market Availability Reduction Factor</b>	<b>Vacant Land</b>	<b>Partially Used Parcels</b>	<b>Redevelopable Parcels</b>	<b>Total Net Acres</b>
15% for Vacant Land	65.6 ac (55.76 ac)	--	--	<b>55.76 ac</b>
30% for Partially Used and Redevelopable Parcels	--	80.8 ac (56.56 ac)	121.84 ac (85.29 ac)	<b>141.85 ac</b>
				<b>197.61 ac</b>

1. Market availability reduction factors following the Snohomish County Tomorrow, 2012 Buildable Lands Report methodology.
2. Calculations do not include “pending” vacant building lots recently subdivided or approved. The pending classification includes an additional 53.74 net buildable acres.
3. Data is based on the Snohomish County Tomorrow, Buildable Lands Report, 2012.
4. Calculations use “buildable acres” or net acres, which excludes critical areas and utility easements.

**Table APC-2 Residential Land Capacity within the City**

<b>Net Acres</b>	<b>20% Reduction</b>	<b>Net DU/Acre</b>	<b>Dwelling Units</b>	<b>96% Occupancy Reduction</b>	<b>Persons Per Dwelling Unit</b>	<b>Total Persons</b>
197.61	158.09	8.57	1,355	1,301	2.59	3,370

1. Net acres is further reduced by 20 percent for infrastructure.
2. Dwelling units per acre is a net average of historic zoning densities for MR and SR zones.
3. Based on 2010 U.S. Census, average household size of 2.59 persons per dwelling unit.
4. A 96 percent occupancy rate is applied to the number of dwelling units before total persons is calculated.

### **Commercial Capacity within the City**

The total commercial net buildable acres inside the city limits of Stanwood that is vacant, partially used or re-developable is 45.66 acres. This number is reduced to 34.02 net buildable acres once market availability factors are applied.

**Table APC-3 Commercial Land Availability within the City**

<b>Market Availability Reduction Factor</b>	<b>Vacant Land</b>	<b>Partially Used Parcels</b>	<b>Redevelopable Parcels</b>	<b>Total Net Acres</b>
15% for Vacant Land	13.77ac <b>(11.70 ac)</b>	--	--	<b>11.70 ac</b>
30% for Partially Used and Redevelopable Parcels	--	3.57 ac <b>(2.5 ac)</b>	28.32ac <b>(19.82ac)</b>	<b>22.32 ac</b>
				<b>34.02 ac</b>

1. Data is based on the Snohomish County Tomorrow, Buildable Lands Report 2012.
2. Market availability factors following the Snohomish County Tomorrow, 2012 Buildable Lands Report, methodology
3. Calculations use “buildable acres” or net acres, which does not include critical areas or utility easements.

### **Industrial Land Availability within the City**

The total industrial net acres inside the city limits of Stanwood that are vacant, partially used or re-developable is 45.45 acres. This number is reduced to 35.71 net buildable acres once market availability factors are applied.

**Table APC-4 Industrial Land Availability within the City**

<b>Market Availability Reduction Factor</b>	<b>Vacant Land</b>	<b>Partially Used Parcels</b>	<b>Redevelopable Parcels</b>	<b>Total Net Acres</b>
15% for Vacant Land	30.64ac <b>(26.04 ac)</b>	--	--	<b>26.04 ac</b>
30% for Partially Used and Redevelopable Parcels	--	10.44 ac <b>(7.31 ac)</b>	3.37 ac <b>(2.36 ac)</b>	<b>9.67 ac</b>
				<b>35.71 ac</b>

1. Data is based on the Snohomish County Tomorrow, Buildable Lands Report, 2012.
2. Market availability factors following the Snohomish County Tomorrow, 2012 Buildable Lands Report methodology
3. Calculations use “buildable acres” or net acres, which does not include critical areas or utility easements.

## Commercial and Industrial Land Capacity within the City

Because most of the factors cannot be known with certainty, it is necessary to make certain assumptions and generalizations that will represent a reasonable estimate. For the purposes of these calculations, the following average employees per net acre based on historical averages will be used:

**Table APC-5- Averages for Employees Per Net Acre**

Stanwood Zoning	Avg. Employees per Net Acre
MBI	21
MBII	18
NB	21
GC	16
GI	34
LI	23

**Table APC-6 Commercial and Industrial Land Capacity within the City**

Net Acres	Zone	Avg. Employees per Acre	Total Employment Capacity
7.07	MBI	21	148
19.26	MBII	18	347
.92	NB	21	19
6.76	GC	16	108
17.86	GI	34	607
17.85	LI	23	411
			<b>1,640</b>

1. Data based on Snohomish County Tomorrow, Buildable Lands Report, 2012.
2. General Industrial (GI) includes 4.032 acres for AEO.
3. Acreage is based on "buildable acres" or net acres.

## Urban Growth Area

The total net acres within the City's UGA that is vacant, partially used or re-developable that can be used for residential uses is 149.42 acres.

**Table APC-7 Residential Land Availability within the UGA**

<b>Market Availability Reduction Factor</b>	<b>Vacant Land</b>	<b>Partially Used Parcels</b>	<b>Redevelopable Parcels</b>	<b>Total Net Acres</b>
15% for Vacant Land	59.21 ac <b>(50.33 ac)</b>	--	--	<b>50.33 ac</b>
30% for Partially Used and Redevelopable Parcels	--	46.83 ac <b>(32.78 ac)</b>	94.73 ac <b>(66.31 ac)</b>	<b>99.09 ac</b>
				<b>149.42 ac</b>

1. Data based on Snohomish County Tomorrow, Buildable Lands Report, 2012.
2. Market availability reduction factors following the Buildable Lands methodology.
3. Calculations are based on “buildable acres” which does not include critical areas or utility easements.

Existing residential land in the UGA will house a total of 1,797 additional population, as shown below.

**Table APC-8 Residential Land Capacity within the UGA**

<b>Net Acres</b>	<b>20% Reduction</b>	<b>Net DU/Acre</b>	<b>Dwelling Units</b>	<b>96% Occupancy Reduction</b>	<b>Persons Per Dwelling Unit</b>	<b>Total Persons</b>
149.42	119.54	6.05	723	694	2.59	1,797

1. Net acres is further reduced by 20 percent for infrastructure.
2. Dwelling units per acre is the average of all SR zones historical net density.
3. A 96 percent occupancy rate is applied to the number of dwelling units before total persons is calculated.

Based on 2010 U.S. Census, average household size of 2.59 persons per dwelling unit.

The preferred land use alternative provides for minor changes to the Comprehensive Plan and Zoning Maps in order to assist the City in meeting the County’s 2035 population and employment projections. These changes allow for slightly less residential capacity and greatly improves the employment capacity within the City.

**Table APC-9 Residential Land Capacity areas Analysis of Preferred Alternative**

Area/ Zone	Net Acres gain or loss)	Existing Residenti al Capacity	Expected Residntia l Capacity	Existing Employ ment Capacit y	Expected Employ ment Capacity					
Comm ercial	40.84			158	656					
Reside ntial	-40.84	373	343							
Total	0		-30		498					

Commercial and industrial land within the UGA is 75.82 acres of buildable land. This has a capacity for 1,146 employees.

**Table APC-10 Commercial and Industrial Land Availability within the UGA**

Market Availability Reduction Factor	Vacant Land	Partially Used Parcels	Redevelopable Parcels	Total Net Acres
15% for Vacant Land	1.67 ac <b>(1.42 ac)</b>	--	--	<b>1.42 ac</b>
30% for Partially Used and Redevelopable Parcels	--	13.25 ac <b>(9.28 ac)</b>	--60.90 ac <b>(42.63 ac)</b>	<b>51.91 ac</b>
				<b>53.33 ac</b>

1. Data based on Snohomish County Tomorrow, Buildable Lands Report, 2012.
2. Market availability reduction factors following the 2012 Buildable Lands methodology.
3. Calculations are based on "buildable acres" which does not include critical areas or utility easements.

**Table APC-11 Commercial and Industrial Land Capacity within the UGA**

Net Acres	Zone	Avg. Employees per AC	Total Employment Capacity
1.36	NB	21	29
9.31	GC	16	149
12.63	Urban Industrial (to be GI)	22	278
30.02	LI	23	690
<b>Total:</b>			<b>1,146</b>

1. Data based on Snohomish County Tomorrow, Buildable Lands Report, 2012.
2. Average employees per acre based on historical data.

## Demand for Residential Land

Demand is the City’s future requirement for land to satisfy its need for balanced growth. Within the City of Stanwood and the UGA, the population is expected to increase by 4,745 persons for a total population of 11,085 by 2035. Based on these growth targets, the City needs to provide an additional 1,832 housing units. Current land capacity within the City and the UGA provides for 5,167 people and is sufficient to meet targeted growth goals for 2035. The minor changes in the preferred alternative land use map reducing residential capacity by 30 units still allow the City to more than meet the required target.

## Demand for Land and Employment

The City of Stanwood employment target for 2035 is 5,723 jobs. The City’s planning area currently provides 3,456<sup>1</sup> jobs. To meet its 2035 targeted employment number the City needs an additional 2,267<sup>2</sup> jobs. Land that is vacant, partially used or re-developable within the City could support an additional 1,640 jobs over the 20 year planning horizon. The City’s UGA could support an additional 1,146 new jobs over 20 years. The combination of land with the City and UGA could provide a total of 2,786 additional jobs by 2035. The preferred alternative Comprehensive Plan map shows the addition of approximately 498 jobs.

<sup>1</sup> Source: Countywide Planning Policies for Snohomish County, Appendix B, Table 3

<sup>2</sup> Future employment needs is based on the 2035 employment target (5,723) minus the current number of jobs within Stanwood (3,456) equals additional employment needs (2,267).

*Residential Assumptions*

1. Future population numbers are based on the targeted growth for 2035 as established by Snohomish County Tomorrow (11,085 City and UGA);
2. Based on the 2010 U.S. Census the average household size is 2.59;
3. The net densities are based on historical development within the city and are applied as follows:

<b>Zone</b>	<b>DU/acre</b>
MR	18.74
SR 12.4	4.02
SR 9.6	4.11
SR 7.0	6.22
SR 5.0	9.84

4. Market availability factors included 15% for vacant land and 30% for partially used or Redevelopable parcels;
5. Vacant land recently subdivided or approved for development was not included in the calculations, because it is either developed or in the process of being developed.
6. A 20 percent reduction is applied to residential lands for public uses and infrastructure, including roads, drainage, and recreation/open space.

*Commercial and Industrial Assumptions*

1. Available land for commercial and industrial land uses is based on Snohomish County Buildable Lands Report data for the City of Stanwood, 2012.
2. Market availability factors included 15% for vacant land and 30% for partially used or Redevelopable parcels;
3. To calculate the average employees per acre, figures based on historical averages are used. For Urban Industrial land in the currently unincorporated area, 22 employees are used, per Snohomish County Tomorrow Buildable Lands Report, 2003.