

APPENDIX C

HOLDING CAPACITY ANALYSIS

City Holding Capacity

The capacity analysis undertaken for the City of Poulsbo concluded that the City could accommodate an additional 3,573 persons or 1,545 housing units on a total of 163.5 net acres (see the calculations at the end of this section).

In determining the number of dwelling units that could be built on the remaining residentially zoned land, the high end of the density range was used for the City's three residential zoning districts (i.e., low density residential = 5 units/acre; medium density residential = 10 units/acre; high density residential = 14 units/acre)¹. While there is no guarantee all of this land will be developed at the highest allowed density, the City and County agreed that using the high end of the density range would provide the most conservative and defensible capacity analysis.

Once the actual holding capacity for the incorporated city limits was determined, the City applied the methodology to the proposed UGA boundary (the UGA boundary proposed by the City). Generally, at the present time, the City is planning to accommodate an additional 6,780 persons. The capacity analysis shows that the City can accommodate a total of 3,570 persons within the City proper, leaving 3,207 persons to be accommodated within the unincorporated portion of the UGA.

Dividing 3,207 persons by 2.24 person per household arrives at the number of households that need to be planned for within the unincorporated UGA. Therefore, an additional 1,432 households need to be accommodated within the unincorporated portion of the UGA. Using the County's average of 5 dwelling units per acre to calculate the net space requirement for the unincorporated portion of the UGA, one finds that the minimum net acreage needed is 286.4 without adding in the market factor. With a 25% market factor taken into consideration, the unincorporated portion of the UGA needs to contain 358.31 acres ($.25 \times 286.4 = 71.6$. $71.6 + 286.4 = 358$).

The City then determined how much land exists within the proposed Poulsbo UGA. The proposed UGA contains 1,258.52 gross acres. From this is subtracted non-residentially zoned land (212.24 acres)² to determine the number of residentially zoned acres. The unincorporated portion of the UGA contains 1,046.28 residentially zoned acres (gross). It is assumed that all parcels one half an acre or less in size that contain a dwelling unit are unavailable for further development and therefore removed from consideration because these properties are not likely candidates for redevelopment during the planning period (53.9 acres were removed due to this assumption). The calculations leave 992.38 gross acres within the unincorporated portion of the UGA to accommodate future population growth. Of this acreage, 486.08 are underutilized lands and 506.30 acres are defined as vacant lands.

¹ The County and City agreed to use the high end of the City density ranges to calculate the remaining City capacity.

² UGA's are expected to include nonresidential lands for employment growth and public facilities. County Comprehensive Plan, pg. A-30.

The underutilized and vacant lands are then subjected to the reduction factors. By applying these reduction factors the amount of underutilized and vacant land for residential development is 358.31 net acres. As mentioned above, the unincorporated portion of the UGA needs to be 358 net acres in size to accommodate the remaining population allocation, and the UGA as proposed is 358.31 net acres in size.

**EXPLANATION OF METHODOLOGY FOR DETERMINING DEMAND AND
SUPPLY
OF LAND IN THE PROPOSED URBAN GROWTH AREA
FOR THE CITY OF POULSBO**

KEY QUESTIONS:

1. HOW MUCH POPULATION GROWTH IS PROJECTED FOR THE CITY OF POULSBO AND VICINITY FOR THE FORECAST PERIOD (1992-2012)?
2. HOW MUCH DEVELOPABLE RESIDENTIAL LAND IS AVAILABLE (SUPPLY) WITHIN THE CITY LIMITS?
3. HOW MUCH LAND IS NEEDED (DEMAND) IN THE UGA TO ACCOMMODATE THE 2012 POPULATION ALLOCATION?
4. HOW MUCH DEVELOPABLE RESIDENTIAL LAND IS AVAILABLE WITHIN THE PROPOSED UGA?
5. IS THE SIZE OF THE PROPOSED UGA ADEQUATE TO SUPPORT THE PROJECTED POPULATION IN THE YEAR 2012. (WHAT IS THE DIFFERENCE BETWEEN 3 AND 4?)

TAKING A CLOSER LOOK AT EACH QUESTION:

1. HOW MUCH POPULATION GROWTH IS PROJECTED FOR THE CITY OF POULSBO FOR THE FORECAST PERIOD?
 - a. The 1992 – 2012 population allocation to the city was 8,000.
 - b. Population increased in the city from 1992 to 2000 by 1,220 people.
 - c. Therefore the remaining population allocation the City needs to accommodate is 6,780 people.

2. HOW MUCH DEVELOPABLE RESIDENTIAL LAND IS AVAILABLE (SUPPLY) WITHIN THE CITY LIMITS?

a. Available residential land inside the city limits (including vacant and underutilized land) is currently 528.61 acres gross.

1,795.55 ac.	Total acres in City (excluding Dogfish estuary and existing ROWs)
- 635.12	Acres nonresidential Zone
1,160.43 ac.	Residential zones
- 631.82	Acres Developed (.5 acre or less with structure or specific use)
528.61 ac	Includes vacant (325.06) and underutilized (203.55)

b. The development capability of each zone is reduced by applying the following factors:

- Redevelopment constraints (no effect on vacant land)
- Unavailable lands (assumes no interest in selling)
- Street and road development
- Public facility (schools, parks, bus stops, etc.)
- Critical areas (% varies significantly among zones, therefore 22 % based on mapping in the City)

These are applied to each residential zoning category in order to identify how the factors affect the yield in each category. The first four factors are constant percentages applied to all categories as outlined in the Kitsap County Comprehensive Plan. The last reduction factor listed above, relating to critical areas³, was calculated at 15% by the County based on a study of East Bremerton. The City's GIS analysis of Citywide critical areas lead to the conclusion that 22% of all City land was encumbered by critical areas. The City determined to use 22% as it is the more accurate number for the area.⁴

³ The City based the critical areas reduction factor on GIS analysis of the proposed UGA (both unincorporated and incorporated lands) to be 17% and 22% when only looking at the City proper. While these factors vary slightly from the County's 15% based on the East Bremerton Study, the City believes that when more accurate numbers exist they should be used.

⁴ However, if one calculates the remaining vacant and undeveloped residential land within the City property the proportion of critical areas to developable land is much higher. Depending on the residential zone the proportion of critical areas to developable land ranges from 10% to 79%. The majority of remaining residential land in the City is found at the high end of the range. If one thinks about it this makes sense. The most encumbered land is avoided as developers seek out land that is less encumbered and therefore easier to develop.

- c. The resulting net 163.50 acres of developable residential land is distributed as follows:

Low Density	94.47 acres
Medium Density	44.35
High Density	<u>24.68</u>
	163.50 acres

- d. The residential zones inside the city limits are projected to accommodate a total of 2,821 persons as follows:

Zoning District	Net Dev. Acreage	Max. Density	Units	Persons/ Household	Population
LDR	94.47	5 du/ac	472	2.24	1,057
MDR	44.35	10	443	2.24	992
HDR	24.68	14	345	2.24	<u>772</u>
					2,821 Total

3. HOW MUCH LAND IS NEEDED (DEMAND) IN THE UGA TO ACCOMMODATE THE PROJECTED POPULATION IN THE YEAR 2012?

- a. Based on population, household size and average density, the net developable acres needed within the unincorporated UGA can be determined:

6,780	Expected population increase
<u>3,573</u> ⁵	Population absorbed within the City proper
3,207	Population remaining to be accommodated within the unincorporated portion of the UGA.

- b. It is assumed that the average household size is 2.24 persons per household, which results in 1,431.7 dwelling units projected.

$$3,207 \text{ population} / 2.24 \text{ persons} = 1,431.7 \text{ dwelling units}$$

- c. Assuming an average development density of 5 dwelling units per acre, the required net acreage to support the expected population increase is 268.4 net acres.

$$1,431.7 \text{ dwelling units} / 5 \text{ units per acre} = 286.4 \text{ net acres}$$

- d. The County assumes a market factor of 25% (71.6 acres) to compensate for housing selection and pricing pressures on availability (see pages

⁵ This figure includes 336 housing units that have received final approval from the City, but have not yet been constructed. These units can accommodate an additional 752 persons.

A-29 through A-54 of the Kitsap County Comprehensive Plan for a detailed discussion). The resulting net developable acres needed within the UGA are 358 acres.

$$1.25 \times 286.4 = 358 \text{ net developable acres needed}$$

4. HOW MUCH DEVELOPABLE RESIDENTIAL LAND IS NOW AVAILABLE WITHIN THE PROPOSED UGA?

- a. The City has allocated 1,258.52 gross acres to the UGA. When non-residential and developed lands are taken out, the total gross developable acreage is 992.38 acres. Developed land is defined as parcels one-half acre or less with a structure or specific use (one-half acre is assumed the maximum lot size which will not be redeveloped).

$$\begin{array}{r} 1,258.52 \text{ gross acres} \\ \underline{212.24 \text{ non-residential and developed}} \\ 992.38 \text{ gross acres of residential land} \end{array}$$

- b. The same development factors as outline above are applied with the exception of the critical areas, which for the UGA projection, the City's critical areas average of 22% is used.
- c. The result is 358.31 net developable residential acres within the UGA.

5. WHAT IS THE DIFFERENCE BETWEEN 3 AND 4 (IS THE PROPOSED UGA AREA ADEQUATE TO SUPPORT THE PROJECTED POPULATION IN YEAR 2012)?

- a. In 3d, above, it was determined that 358 net developable acres are needed in the UGA to accommodate the projected demand. Subtracting the 358.31 net acres provided in the City's UGA configuration, one finds that the UGA is .31 acres oversized.

