WHATCOM COUNTY
PLANNING & DEVELOPMENT SERVICES
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Hal H. Hart, A.I.C.P.
Director

MEMORANDUM

TO: Whatcom County Planning Commission

FROM: Troy Holbrook, Senior Planner

DATE: September 14, 2005

RE: Review of the City of Bellingham's Land Supply Analysis

For the September 22, 2005 work session, staff will present and discuss with the Commission the City of Bellingham's Land Supply Methodology Analysis (Exhibit 1), and the most recent calculations for the City's and Urban Growth Areas infill capacity (Exhibit 2).

Staff will be presenting discussion points, and supplemental documents and information at the work session.

City of Bellingham Land Supply Methodology

July 2005

The City of Bellingham's Land Supply Methodology follows the 8-step model outlined by the Washington State Department of Community Trade & Economic Development in their publication titled "*Issues in Designating Urban Growth Areas – Part 1 – Providing Adequate Urban Area Land Supply*"

Step 1. Identify lands which are potential candidates to accommodate future growth—vacant, partially-used and under utilized land (in other words, subtract all parcels committed to other uses).

The identification of buildable land begins with a City of Bellingham GIS parcel base layer (current through July, 2005). This base property layer is linked to current ownership, tax status, value, and landuse data from the Whatcom County Assessor's office. This data is then combined with zoning layers covering the City and UGA. For the City, current adopted zoning designations and allowable densities are used. For the UGA, the proposed zoning designations and allowable densities are used.

A series of semi-automated scripts and queries are run using the GIS to sort and classify every parcel in the City and UGA (approximately 33,000 tax parcels) into the following categories.

- Developed Land
- Redevelopable Land
- Partially Vacant Land
- Vacant Land
- Public/Quasi-Public Land

Developed land is defined as land with no additional space (i.e. full lot/parcel coverage) and significant structural (improvement) values. This is land that is not seen as likely to support further or more intense levels of development.

Redevelopable Land is defined as land occupied by current development that is of relatively low intensity, or of relatively low structural (improvement) value. This is land that is seen as likely to support further or more intense levels of development. For residential development a threshold of 10% structural to total property value is used to identify land with redevelopment potential. In other words, if the value of the structure (improvements) is 10% or less than the total property value the current use is deemed likely to redevelop over the next 20-years to a more intense use.

Partially vacant land is defined as land partially occupied by development. Typical examples include residential lots in city neighborhoods where a home has a large side-yard that could accommodate an additional home of similar footprint. And single-family homes located on large 2-5 acre tracts of land where the zoning would support subdivision to smaller platted lots. For partially vacant land a threshold of 2.5 times the zoning density is used to filter out lots with development potential. For example, in a zone supporting 5,000 square foot lots, a parcel with an existing single-family home would need to be at least 12,500 square feet in size to be considered partially vacant. In addition to the 2.5x factor, properties are viewed in the context of surrounding platted lots such that an entire subdivision of 12,500 square foot lots in a 5,000 square foot zone would not be considered for further development. Rather lots that are exceptionally large relative to the surrounding properties are identified as those with the most potential. A final criteria filters out properties where the existing home's structural value is more than $250,000. This serves to eliminate mansion-class homes where the size, value, and position of the home on the lot make further development unlikely.

Vacant land is defined as land with no, or insignificant improvements. Based on recommendations in the DCTED Land Supply Analysis literature, a threshold of $10,000 structural (improvement) value is used to identify properties as vacant.

Public/Quasi-Public land is defined as land in public ownership or in an ownership that makes development of residential uses unlikely. Examples of public ownership include City, County, State, and Federal lands. Also included in the public category are Port properties, tribal lands, cemeteries, etc… Examples of quasi-public ownership include private utility companies and their transmission corridors, religious organizations that hold land for future facility development, land owned by private land trusts and conservation entities, private openspace, and land with deed restrictions specifically limiting further development (utility service restrictions etc…). These properties are sorted and filtered based on ownership, tax status codes, landuse codes, legal descriptions, and deed listings.

Step 2. Subtract all parcels that your community defines as <u>not developable</u> because of physical limitation. For instance, once you have identified critical areas, such as wetlands, and have established plan policies and regulations prohibiting development in these areas, subtract these areas from the initial land supply pool.

Using the City's GIS layers the following Critical Areas features and associated buffers have been identified. The average buffer widths used correspond to those specified in the City's proposed CAO Ordinance.

- Wetlands (NWI Survey, 1992 Inventory, 2003 Inventory) – 100' Avg. buffer.
- Streams (Regulated streams layer) – 100' Avg. buffer.
- Floodplains (2004 FEMA layer) – 100 Year & Floodway
- Geologic Hazards (slopes layer from 5 foot resolution Digital Terrain Model, landslide hazards layer).
- Shoreline Management Program areas (Proposed SMP layer) - 200' Avg. buffer.

These layers were combined in the GIS as a composite critical areas layer and then overlaid on the classified buildable lands base layer. The area of each parcel covered by critical areas is then subtracted from the parcel's gross area to derive a net-buildable area.

Discussions with City environmental planning staff support the use of 100' average buffers for wetlands and streams (for general land supply analysis). A large number of wetlands identified by reconnaissance surveys are of relatively low functional value and will ultimately be protected by smaller (less than 100') buffers. The use of 100' as an average allows for an accurate representation of the area impacted by buffers protecting the full range of wetland types.

A significant portion of the acreage in this category will count towards the Parks forecasted demand for conservancy openspace. This is in-line with the past pattern of lands impacted by critical areas and their buffers being dedicated to the City as openspace through the platting process.

Step 3. Subtract lands which will be needed for other public purposes.

This includes utility corridors, landfills, sewage treatment plants, recreation, schools, and other public uses (GMA, Section 15, RCW 36.70A.150).

This category includes reductions for stormwater management facilities, right of way, developable park land, and other public facilities. Reductions for these categories are applied to unplatted buildable lands only (with the exception of parks – see parks section below). This is in recognition of the fact that lands that have already been platted have had these reductions placed upon them through the platting process.

- The stormwater infrastructure reduction of 18% is based on the Washington State Department of Ecology standard.

- The right of way infrastructure reduction of 20% is based on combining the average reduction for residential of 15% and the average reduction for commercial and industrial of 25% to arrive at a single factor that could be applied across all vacant, unplatted land regardless of the mix of proposed uses.

- The level of service reduction for developable park land is based on a standard of 28 acres of developable park land for every 1,000 people. There is an additional 16 acres of conservancy openspace park land per 1,000 people that is assumed to come from the 2,101 acre critical areas reduction. These standards were derived from the public facilities needs identified in the 2004 Final EIS, and the 2004 Parks and Openspace Masterplan. The 28 acres per 1,000 people reduction is applied to all unplatted, vacant residential land. For platted, vacant residential land a reduction of 14 acres per 1,000 people is made. The split between platted and unplatted land accounts for the fact that land that has already been through the subdivision/platting process has already had reductions for parks, openspace, and public facilities made. The 14 acres per 1,000 reduction is justified through historic patterns of park land purchases of land in areas where sufficient lands could not be set aside through the normal development process.

  The 20-year service area population for parks is calculated based on the 31,601 population growth figure, and also the addition of the 12,194 existing residents (in 2002) in the UGA. The UGA population is not considered as part of the existing service area population. These two populations added together comprise a gross total increase of 43,795 people for parks service customers over the 20-year planning period. At a level of service of 28 acres per 1,000 people this requires 1,226 new acres of developable park lands by the year 2022.

  Between the years 2002 and 2005 the City acquired 85 acres of developable park lands. The 2005 land supply update makes reductions to the residential supply for an additional 458 acres of developable land for public facilities, of which 442 acres are for parks. There are 39 linear miles of proposed trail corridors in the City and UGA (corridors yet to be constructed). 23 of these miles are in commercial and industrial zones and 16 are in residential zones. Using the multiplier of 4.85 acres

per ½ linear mile (from the Parks & Openspace Masterplan) this would remove a total of 378 acres of developable trail corridor from the land supply. 223 acres from the commercial and industrial land supply and 155 acres from the residential supply. Based on discussions with Parks staff not all of these corridors would develop as planned. Also, there are trails that are proposed for residential zones that would be built in wetland buffer areas not included in the 425 acres of developable lands already reduced from the residential supply. Therefore, Parks Department Staff recommend a figure of 250 acres of developable land is as a reasonable estimate of the acreage required to accommodate the proposed trail corridors. Adding the 85 acres of land already purchased since 2002, the 442 acres removed from the residential land supply, and the 250 acres removed from the commercial and industrial land supply, and residential wetland buffer areas results in a total of 777 acres of developable park lands. When compared to the 1,226 requirement there is a shortfall of 449 acres of developable land.

The reductions are applied on a parcel-by-parcel basis using the following technique:

1. Buildable (vacant, partially vacant, or redevelopable), unplatted parcels are selected.
2. Following reductions for critical areas, the net buildable area is calculated.
3. The specified residential zoning density for each parcel is converted to a square foot per resident figure
    a. Square feet per unit is reduced by a vacancy rate (sliding scale) with a low end of 3.4% for single-family detached and a high end of 6.7% for high-density multi-family.
    b. This adjusted square feet per unit figure is multiplied by an occupancy rate (sliding scale) with a high end of 2.53 persons per household for single-family detached and a low end of 1.7 for high-density multi-family (MF avg. = 1.91).
    c. The resulting figure represents the square feet per resident.
4. The 28 acres per 1,000 residents is converted to a square foot per resident figure by multiplying 28 acres x 43,560 sq. ft. per acre and dividing the result by 1,000 to get 1,220 square feet per resident of developable park land.
5. The 1,220 sq. ft. per resident of developable park land is then added to the square feet per resident figure from step 3 to derive an adjusted sq. ft. per person figure.
6. This adjusted density per person is then multiplied by the same persons per household occupancy and the vacancy rates to derive an adjusted sq. ft. per housing unit figure.
7. The adjusted density figure is then used to calculate the unit-bearing capacity of each parcel with a built-in set-aside for developable park land.

- The level of service reduction for other public facilities is 1 acre per 1,000 people. This figure was derived from the City's Final EIS published in July of 2003. The reduction takes into account forecasted land needs for schools, fire, police, jails,

libraries, utilities, and general administration. The forecasted land needs were compared against undeveloped land held by public entities such as the Bellingham School District (The BSD now owns land for 3 elementary school sites in Yew Street, Aldrich Road, and King Mountain areas of the UGA) to derive the net forecasted need. This figure was then divided by the population growth forecast to derive an acres per 1,000 residents level of service figure (actual figure was 41 sq. ft. per resident which for clarity was rounded up to 43.5 sq. ft. to equal 1 acre per 1,000 people).

The reductions for other public facilities were calculated on a parcel-by-parcel basis using the same procedure (with the 1 acre/1,000 figure) described above for the developable park land reduction.

Step 4. Subtract all parcels which your community determines are not suitable for development for social and economic reasons. For instance, if you have adopted plan policies and regulations protecting historic districts or certain agricultural lands, or if from a market standpoint the land is not likely to develop within 20 years, subtract these from land supply.

The lands that fall into this category were removed as part of Step 1. The public/quasi-public category includes lands deemed not suitable for development due to social and economic reasons. Examples of this include vacant lands owned by religious organizations, private schools, land trusts, conservation organizations, private utility companies, and land where development is restricted by deed mechanisms (i.e. utility service agreement restrictions in the Lake Whatcom Watershed). Currently, development in historic districts in the City of Bellingham is not prohibited. However, should such restrictions be adopted in the future, appropriate adjustments to the land supply would be made in the context of this step.

Step 5. Subtract all parcels which you assume will not be available for development within your plan's 20-year framework. Assume that a certain percent of vacant, under-utilized, and partially-used lands will always be held out from development.

A 15% reduction for under-building in the City where the zoning does not include minimum density requirements. Since 1995 there have been 6,430 housing units built in the City. The zoning in place when these units were built could have accommodated up to 7,540 housing units. The decision by owners to build at less than the maximum density has resulted in a loss of infill capacity of 1,110 housing units (15%). Other examples of areas where underbuilding has affected infill capacity are the Birchwood and Samish neighborhoods where the zoning and development patterns are more suburban than urban in nature (20,000+ sq. ft. lots).

A 15% reduction in the UGA for owners deciding not to build or sell within the 20-year planning period. An independent survey conducted in 2001 by a local engineering firm* found that 15% of the Bellingham Urban Growth Area's vacant land over 2-acres in size was owned by people who did not plan to sell or develop their property in the next 20 years. While the zoning proposed for the UGA areas does include minimum density requirements (typically 6 units/acre), this reduction factor accounts for the uncertainty attached to lands developing at the urban/rural interface.

*Jones Engineers, Bellingham, WA

Step 6. Build in a safety factor. If you are unable to monitor land supply on a regular basis, consider building in a safety factor of land in addition to your projected 20-year land area needs to assure adequate availability and choice at all times.

1. Even though communities refine their methods for determining available land supply, there will always be a certain degree of uncertainty inherent in making long-range growth projections and predicting market conditions.

2. There is evidence that some communities have experienced increased land and housing costs which may be related to setting urban growth areas too tightly. Two approaches are recommended to assure that land supply is not restricted to the degree that it contributes to significantly higher housing costs:

    - Continuously monitor land supply. Reevaluate and adjust land supply more frequently than required by Washington's GMA, possibly every one to three years.

Consider building in a safety factor of additional land beyond that needed to exactly accommodate the projected 20-year growth for your community. Such a factor "allows for unanticipated choices of individuals and firms who may acquire land in excess of the anticipated need, and it allows for land which may be held out of use because of personal preferences or whims of a few property owners or because of legal complications which make the land unavailable for immediate development." The excess should not be more than 25 percent.

3. Additional Ground Rules to Assure that Land Supply Decisions Won't Inflate Housing Costs

    - The key point to remember – limiting supply below demand tends to increase prices.
    - Plan to provide an adequate supply of housing throughout the 20-year plan time frame.
    - Coordinate your efforts with those of adjacent jurisdictions.
    - The supply of land provided should match the needs of your particular population mix.
    - To the extent that less information is available and greater uncertainty exists, build in a "safety" factor for adequate land supply.

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Hearings Board Decision

"The sizing of UGAs remains dependent upon an accounting exercise requiring a reasonable relationship between its selected size and the likely future population for each county. With regard to the question of the permissible size of a 'land supply cushion' or 'market factor,' several conclusions are in order. The Board has previously held that a county may size its UGA with more land than is required to meet the demands of 20 years of projected growth. *See Tacoma*, at 10. This 'excess land supply' may be called a 'market factor,' as EHB 1305 does, or a 'safety factor' or 'cushion.' What a county chooses to call such excess land supply does not matter so much as that such factor is explicitly quantified and expressed as a percentage of land beyond the minimum necessary to accommodate the OFM projected growth, at the land use densities stated in each jurisdiction's land use map…

…While it is difficult to draw an absolute limit beyond which a county may not go in using such a factor, the Board holds that a 'market factor bright line' will be drawn at the 25 percent threshold. The Board takes official notice of the DCTED publication, *Issues in Designating Urban Growth Areas-Part I-Providing Adequate Urban Land Supply*, March 1992. Citing several approaches in other growth management states, this publication discussed the concept of an excess land supply and the need to strike a balance in sizing UGAs so as to contribute neither to sprawl nor to increased housing costs." **Bremerton, et al. v. Kitsap County , Central Puget Sound Growth Management Hearings Board, Consolidated Case No. 95-3-0039. Id at Page**

The land supply analysis includes a **safety factor** reduction of 25% to ensure affordability in the city neighborhoods and urban centers. And to account for uncertainty as to if and when areas of the UGA may annex to the City.

Step 7. Determine total capacity. After determining desirable densities and land uses for various areas within your jurisdiction, multiply the number of acres in remaining parcels by the number of units per acre allowed in the area where the parcel is located. Add together to determine total capacity of vacant, under utilized, and partially-used land.

Following steps 1-6 the remaining buildable residential land is used to determine total capacity. To do this a residential development density is attached to each parcel based on the current zoning in the City, and the proposed zoning in the UGA, and the estimated capacity of each of the Urban Centers.

The square footage (net developable area after all reductions) is divided by the development density resulting in a net new housing unit count.

To convert these new housing unit counts to population the following procedure is followed:

1. The housing unit totals are reduced by a vacancy rate (sliding scale) with a low end of 3.4% for single-family detached and a high end of 6.7% for high-density multi-family.
2. This adjusted housing unit figure is multiplied by an occupancy rate (sliding scale) with a high end of 2.53 persons per household for single-family detached and a low end of 1.7 for high-density multi-family (MF avg. = 1.91).
3. The resulting figure represents the estimated population capacity of the buildable residential lands.

There are currently 223 occupied housing units in commercial and industrial zones (161 in the City and 62 in the UGA). Residential units built since the commercial zoning was in place have been excluded since these uses are allowed and in many cases (like Downtown and Fairhaven) share space with commercial uses in a mixed-use environment). Using standard occupancy and vacancy rates these housing units are estimated to accommodate 538 residents. To account for redevelopment of these units to commercial and industrial uses and the resulting relocation of this population, a reduction of 538 people and 223 housing units will be made to the residential land supply.

Finally, the resulting adjusted estimated population capacity is compared against the forecasted population growth to determine if further infill capacity is needed.

The forecasted population growth figure is <u>27,329 people between 2005 and 2022</u>.

Adopted population forecast for 2002-2022 calls for 31,601 new people.

During the 3-year period 2002-2005 the City and UGA have grown by 4,222* people. This total is on target with our forecasted rate of growth.

The population to be accommodated during the remainder of the 20-year planning period is 27,379 people. (31,601 – 4,222 = 27,379)

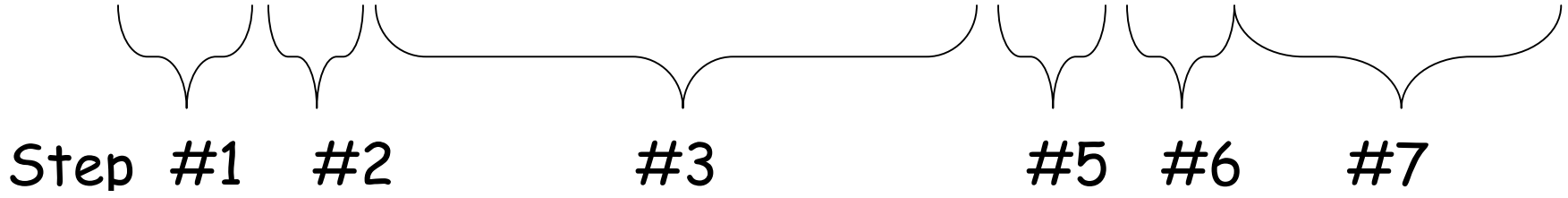
*2002-2005 growth figure of 4,222 people was derived by taking the Washington State Office of Financial Management official estimate for Bellingham's growth of 3,060 people and adding it to an estimate of population growth in the UGA of 1,162 people. The UGA growth figure was derived by applying standard occupancy and vacancy rates to residential permits finaled in the UGA by Whatcom County during the 2002-2005 time period.

Step 8. Draw the urban growth boundaries for your jurisdiction which meet criteria you have set. Include enough developable, suitable, and available vacant, under-utilized or partially-used land area to meet your share of projected growth.

Cjb – July, 2005

City of Bellingham Land Supply Update - July 2005

	Vacant or Redevelopable Acres	Critical Areas Reduction Acres	Stormwater Reduction Acres (18%)	Right of Way Reduction Acres (20%)	Developable Parks Reduction (28 Ac./1,000 Pop) Acres	All Public Facilities Red. Except Parks (1 Ac./1,000 Pop.) Acres	Land Availability Reduction 15% Acres	Safety Factor Reduction 25% Acres	Remaining Developable Acres	Total Infill Housing Units	Total Infill Population
City Neighborhoods	1,867	489	159	177	230	8	139	204	461	3,331	7,433
Urban Centers	200	0	0	38	51	2	16	27	66	2,965	5,621
UGA Planning Areas	1,497	572	148	165	161	6	67	111	267	1,582	3,743
Totals	**3,564**	**1,061**	**307**	**380**	**442**	**16**	**222**	**342**	**794**	**7,878**	**16,797**



- Population forecast (2002-2022) calls for growth of **31,601** people.
- From 2002-2005 the City and UGA accommodated **4,222** people.
- The current City and UGA Land Supply can accommodate an additional **16,797** people
- The **223** occupied housing units in industrial zones in the City and UGA currently accommodate **538** people.
- Assuming these units will redevelop and their residents relocate to other housing, subtract **538** from the **16,797** supply.
- The resulting land supply capacity to accommodate **16,259** people leaves **11,120** people that still need to be accommodated.
- If an adjustment to the UGA is made to accommodate the **11,120** people, a total of **2,021** gross acres would need to be added (assuming an average of 14 units/acre. This **2,021** acres would result in **557** net developable acres following the land supply reductions.
- This **557** net developable acres would include **209** acres for mixed-use commercial/industrial development.