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# MEMORANDUM

**DATE:** **April 5, 2007**

**TO:** **Larry Bauman, Snohomish City Manager**

**FROM:** **Michael Hodgins and Natasha Fedo**

**RE:** **Preliminary land capacity analysis findings on SR9/US2 LLC proposal**

**CC:** **SR9/US2 LLC**

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## PURPOSE

This memo is an update to the previous memorandum issued to you on February 16, 2007, by Berk & Associates. Additional analysis and data have been incorporated into this version of the memorandum. In particular, this updated analysis adds information concerning critical areas analysis and provides an estimate of residential land capacity, applying the County's analytical methods.

A key question that will need to be answered before the County will authorize the expansion of the Snohomish Urban Growth Area (UGA) is whether it can be demonstrated that the City lacks adequate land capacity to meet its projected long-term needs for commercial or residential land. Toward this end, a key component of the work plan adopted as part of Council Resolution 1145 is a buildable land capacity analysis. At the January 30, 2007 City of Snohomish Council Study Session there was a request by Council for a briefing on the status and progress on this component of the work plan.

The purpose of this memorandum is to provide decision-makers and staff with a status update, including sharing some preliminary findings and identification of key technical and policy issues associated with the land capacity analysis. Contents of this memorandum include the following elements:

- Preliminary assessment of the potential for meeting the UGA expansion tests as contained in the Snohomish Comprehensive Plan Countywide Planning Policies.
- Preliminary findings and considerations identified to date in the land capacity analysis.

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## BACKGROUND AND CONTEXT

Countywide Planning Policy UG-14 contains the County's requirements for designating or altering the County's UGAs. The question of expanding UGAs is addressed in UG-14(d) which says that any expansion that would add residential, commercial or industrial land shall not be permitted unless it: (a) is supported by a land capacity analysis adopted by the County Council; (b) complies with the Growth Management Act; and (c) meets any one of ten specific conditions. Of these ten conditions, the following four may apply in determining whether the proposed UGA expansion is permissible:

- Growth within the Snohomish UGA since the start of the twenty year planning period equals or exceeds 50% of the available *residential* land capacity, as estimated in the most recent land capacity report – UG-14(d)3;
- Growth since the start of the twenty year planning period equals or exceeds 50% of the available *commercial or industrial* capacity – UG-14(d)4;
- Where growth has not met the 50% threshold, there is a deficiency of larger parcels to accommodate the remaining commercial or industrial growth projected for that UGA – UG-14(d)4; or
- Other parcel characteristics may be considered if determined by the County Council to be relevant to a determination of adequate commercial land capacity, based on new information presented at hearing – UG-14(d)(4).

In connection with the latter two criteria, it is appropriate to assess and document how the City of Snohomish's current supply of developable lands support the City's goals as established in its recently adopted strategic plan: *Imagine Snohomish: Promoting Vitality and Preserving Character (the "Strategic Plan").* One of the primary goals identified in the City's Strategic Plan is to grow and diversify the City's economy and employment base, including strategies to increase retail sales tax revenues, in order to address documented near-term challenges in maintaining the City's fiscal sustainability.

## APPROACH AND CURRENT STATUS OF THE ANALYSIS

The SR9/US2 consulting team's approach to the land capacity analysis follows this process:

- Working with City and County parcel level data from April 2006, determine which parcels can be classified as buildable. The methods for determining which lands are potentially buildable are consistent with those employed in the development of Snohomish County's UGA Land Capacity Analysis dated December 21, 2005 and the 2002 Buildable Lands Report. The analysis includes:
    - Assessment of current vacant land.
    - Identification of larger parcels zoned and therefore available for commercial use within the City and unincorporated area.
    - Identification of constraints on development, including but not limited to: updating critical areas analysis for new information since 2005 analysis, such as wetlands,

buffers, steep slopes, flood protection areas, and shorelines; parcel size, use for public purposes, and other potential limits on development capacity such as access or other infrastructure issues.

- Assessment of redevelopment potential, with a focus on the economic realities of redevelopment in this market.
- Assessment of the potential residential land capacity of the Snohomish's UGA using both (i) the County buildable lands assessment methodology, as adopted by the County and (ii) an alternative parcel-based approach that estimates potential development yields using the City zoning code and development standards to conceptually lay out new plats and estimate total potential new building lots.
- Work with City and County staff to compare results to previous and current County efforts and to identify areas of consistency and differences in interpretation. All interpretations will be explored in detail as to assumptions, data, or methodology – in an effort to build as complete a record as possible describing the current land capacity in the City's UGA.

To date, the SR9/US2 LLC consulting team has made significant progress identifying and analyzing commercial buildable lands, using the methods described in CPP UG-14(d)(4). Additional work is ongoing for the residential land analysis, using both the adopted County methods and the above-described alternative methods (principally for the single family residential areas). There are preliminary results that are emerging which still need to be vetted and discussed with City and County staff.

While our work is progressing, County staff has been working on its own update to the City's 2002 Buildable Lands Report and have only very recently provided City staff with new draft maps for discussion, identifying properties according to the following categories: constant/replacement (no expected increase in capacity); vacant; redevelopable; partially used; pending (currently under development); church/school/special. Over the next several weeks, the County will review this preliminary classification of properties. It will then incorporate zoning categories, historical density yields and critical areas such as wetlands, easements and floodways to arrive at an estimate of net developable land. The County is also considering revisions to the definitions, calculation and data quantification methods and reduction factors previously used in the 2002 BLR that may directly affect the final parcel and capacity count.

The preliminary findings set forth in this memorandum are intended to address the threshold question of whether the commercial and residential land capacity analysis completed to date provides justification for expanding the Snohomish UGA in accordance with the requirements of the Countywide Planning Policies, for purposes of decision-making early in the 2007 Docket, the county's annual comprehensive plan update. This preliminary report thus has a limited role.

After County staff release their draft parcel maps showing a new land capacity analysis as part of the Buildable Lands Report 2007 Update (release currently scheduled for April or May 2007), additional analysis will be appropriate and should be incorporated into the public comment process for that update. In addition, a final report will be submitted to the County and the City for their review, and as part of the Council's public record, prior to final County Council action on the 2007 Docket (Docket XII) (approx. May 2008).

# PRELIMINARY FINDINGS

Given the current status of the work program and the fact that there has not yet been an opportunity to share preliminary findings and compare results with the County's emerging analysis, it is important to consider the following as **preliminary findings** that are subject to further refinement and revision.

## Countywide Planning Policies Regarding Expanding UGA

As a result of the analysis to date, there appears to be enough evidence to support, **at a minimum**, further discussion and analysis with the City and County on the question of whether there is adequate land capacity to meet the City's long term commercial and residential needs. This conclusion is based on the following key findings to date:

- ***Shortage of Commercial Land.*** The City of Snohomish appears to have a shortage of large developable commercial and industrial sites. This finding is based on applying the County's recently proposed definition of economic units (aggregation of contiguous developable parcels in common ownership). The City has 4 developable sites of more than 20 acres).[1] One site is currently under development (Snohomish Station) and the other three comprise the majority of Harvey Airfield and are zoned airport industry. This is one of the most significant findings of the work to date.

- ***Residential Land.*** There are three key pieces of new information since the last County buildable lands update, suggesting that the City of Snohomish is approaching the Countywide Planning Policy threshold for expanding its UGA as a result of growth consuming at least 50% of the available *residential* land capacity:

    - **Recent development activity.** Since the 2005 buildable lands update, there have been 324 housing units added (between April 2005 and December 2006) which are estimated to house approximately 881 new residents. This represents 17.5% of the estimated 5,041 total residential capacity within the City's UGA.

    - **Increased wetlands restrictions.** Analysis of changes in the City's wetlands inventory and regulations demonstrate that a portion of the previously documented available residential land capacity has been consumed. Of the 132 acres of newly-restricted land, 59.6 acres are classified as buildable residential lands using methods described in the 2002 County Buildable Lands Report. These properties are zoned single family residential (56.5 acres) and medium density (3.1 acres) residential and using the 2002 Buildable Lands Report would have supported an additional 195 housing units. As a result, the documented change in sensitive area inventory is roughly equivalent to loss of housing capacity sufficient to support 556 new residents which represents loss of another 11% of the 2005 residential capacity base.

[1] The County's land capacity analysis for the 10-Year Update to the County Comprehensive Plan utilized a size threshold of 20 acres or larger in assessing lands available for employment growth, under UG-14(d)4. *Snohomish County UGA Land Capacity Analysis Technical Report* (Updated Dec. 22, 2005) at 3.

- **Residential development yields, especially from partially used and redevelopable lands.** Based on a parcel-level analysis of the residential buildable lands, as defined using the methods from the 2002 Buildable Lands Study, the City (under current zoning) may have difficulty achieving the development yields assumed in previous land capacity analyses. Applying the City of Snohomish's residential development standards, new subdivisions and residential plats were developed for the expected buildable land in the single family residential zones within the UGA. This analytical process is appropriate given existing City of Snohomish policy which only allows connection to the City's sewer system following annexation, thus making substantive development within the City's UGA subject to annexation and application of the City's development regulations. Analysis of the City's UGA results in a total yield of 1,281 building lots, of which 1,042 are net, new additional housing units. This suggests that the single family housing zones might only contribute approximately 1,900 people toward the capacity target[2], which means that there may not be enough single family buildable land capacity to reach the stated population target.

Because this preliminary analysis has identified a concern over reaching this threshold in the 2nd year of a 20-Year plan sizing the UGA to the 20-year horizon, more detailed analysis of the 50% threshold is warranted and recommended.

While there is much more work to be done with staff at the City and County levels, each of these findings suggest that rationale exists for further consideration of expanding the City's UGA. The next section of this memorandum describes the additional preliminary findings and issues raised as a result of the work to date that support this conclusion.

## Updated Critical Areas Analysis

ESM Consulting Engineers LLC ("ESM") conducted a qualitative evaluation of factors that may significantly affect estimated capacity of the City's UGA, using the most recent documented information. This analysis is worthy of more in-depth study and evaluation by County staff and decision-makers to help validate or improve the accuracy of the 4,164 estimated land capacity.

Wetland and stream mapping of the City's entire UGA was commissioned and completed by Steward and Associates during 2004 ("Steward ESA Study"). Because the Steward ESA Study post-dates the County's 2002 Buildable Lands Report, it was not incorporated into prior County buildable lands analysis and needs to be considered as new information.

The Steward ESA Study was evaluated by ESM to determine the extent to which County critical areas estimates may have been underestimated in the Snohomish UGA. Using the additional wetlands, new designations and classifications in the Steward ESA Study, ESM applied City buffers under Snohomish Municipal Code (Title 14). The following conclusions were reached:

- Generally, across all land use categories, there are a number of wetlands designated under the Steward ESA Study that do not appear on the County's GIS database.

[2] Calculated by using an average of 2.49 persons and applying miscellaneous purpose and market availability reductions.

- When the wetland buffers specified in the City of Snohomish Municipal Code (Title 14) are applied to the merged wetlands data (NWI, Snohomish County wetlands and City of Snohomish wetlands), additional 132 acres of wetlands and wetlands buffers should be removed from the buildable land base. Further information on site-specific development studies should also be considered and may result in additional wetlands and buffers in addition to those documented by the Steward ESA Study.

- This new information was not available at the time of the 2002 Buildable Lands Report and apparently was not re-analyzed during the 10-Year Update, as reflected in the County's GIS database. The 2002 Buildable Lands Report cites two cities (Bothell and Everett) that had wetland and stream data considered as part of the County's 2002 Buildable Lands Report analysis. Consideration and use of the Steward ESA Study in assessing the City's buildable lands is consistent with the County's application of similar supplemental data provided by other cities, and is therefore appropriate.

Out of 132 additional acres of wetlands, it appears that approximately 31 acres would be removed from the buildable commercial lands (based on the County 2007 draft analysis). **Exhibit 1** presents a breakdown of the affected acreage by zoning classification and category of buildable land.

## Exhibit 1
## Commercial Buildable Land Area within the Additional Wetland Buffers, Mandated by City of Snohomish Municipal Code

| | Buildable Category (acres) | | | | |
|---|---|---|---|---|---|
| **Zoning** | **Partially Used** | **Pending** | **Redevelopable** | **Vacant** | **Grand Total** |
| Airport Industry | | | | | |
| Business Park | 3.0 | 3.1 | 7.4 | 11.3 | **24.8** |
| Commercial | | | 0.5 | 0.5 | **1.0** |
| Industry | 3.9 | | | 0.8 | **4.7** |
| Mixed Use | 0.1 | | 0.2 | 0.0 | **0.3** |
| **Grand Total** | **6.9** | **3.1** | **8.1** | **12.7** | **30.8** |

As shown in **Exhibit 2**, approximately 60 additional acres of wetlands are within the buildable residential lands (based on ESM's residential analysis) with the majority listed as single family residential.

## Exhibit 2
## Residential Buildable Land Area within the Additional Wetland Buffers, Mandated by City of Snohomish Municipal Code

| | Buildable Category (acres) | | | | |
|---|---|---|---|---|---|
| **Zoning** | **Partially Used** | **Pending** | **Redevelopable** | **Vacant** | **Grand Total** |
| Single Family | 38.6 | | 0.2 | 17.6 | **56.5** |
| Medium Density Residential | 0.2 | | 1.4 | 1.5 | **3.1** |
| **Grand Total** | **38.8** | **0.0** | **1.6** | **19.1** | **59.6** |

## Commercial Buildable Lands Analysis

The size of available commercial parcels is a key determinant in a region's ability to attract economic investment that will lead to significant employment growth. Given that parcel size will be a key determinant in the analysis of commercial land capacity, the commercial lands analysis started with the County's preliminary parcel aggregation to economic units and its updated definitions of redevelopable and partially used properties. This was done to ensure that the analysis does not understate the potential for number of large parcels; however, in reality, the commercial land base within the City's UGA is highly fractured in size and ownership and therefore may be difficult to assemble into larger economic units which could lead to redevelopment within appropriate planning periods.

Based on these classifications and applying appropriate exclusions for critical areas, the buildable commercial land base in the UGA has the following characteristics:

- There is an estimated 220 acres of total commercial buildable land (including mixed use) spread over a total of 196 potential development sites (economic units) for an average building site of 1.1 acres. These numbers were achieved after reducing the land sites for critical areas and easements.
    - Included in this amount are 9 sites currently listed as pending (under development) which account for 49 total acres. Removing these from the developable category reduces the total acreage to 165 acres and the number of sites to 186 for an average of 0.9 acres per site.
    - The vast majority of building sites in the commercial category are less than 20,000 SF. 126 building sites are less than 20,000 SF each and account for just over 25 acres of the developable lands. Among these, 30 sites are less than 5,000 SF.
    - Among the developable properties, more than 70% of the sites (62% of the acreage) is classified as redevelopable. Another 16% of the sites (22% of the acreage) is classified as partially used, leaving a relatively small share of land classified as vacant. With such a high ratio of very small redevelopable and partially used commercial parcels under different ownerships, there is additional uncertainty regarding the likelihood of future development of the available commercial land base.
    - Among the commercial sites, other than the pending development (Snohomish Station) there are no sites larger than 20 acres, the threshold utilized during the County's 10-Year Comprehensive Plan Update.
    - There are a total of 19 building sites larger than 2 acres. These sites account for 105 buildable acres or an average of just over 5.5 acres per site.
    - The pending sites (under development) represent a significant share of the available larger development sites. Adding the pending sites larger than 2 acres shows that the currently under development activity accounts for 33% of both the available "larger" sites and acres.

- There is an estimated 166 acres of total industrial buildable land on 26 building sites (economic units) for an average building site of just over 7 acres.
    - Of this industrial capacity, the great majority is spread over 3 sites within the airport industry zone (119 acres).
    - Within the City regular industrial zone, there are 23 building sites accounting for 47 buildable acres or an average site size of 2 acres.
    - There are less than 5 acres of buildable industrial vacant land in the UGA. The balance of the buildable land is either redevelopable (24 acres) or partially used (137 acres).
    - Given the land intensity of some industrial uses, the practical future availability of partially used property is a difficult issue to address with certainty. For example, all of the airport industry buildable lands are classified as partially used, though they currently house hangars and the runway. As a result, to be developed they would likely require a change in use.
- Harvey Field should not be counted in the commercial capacity for the City of Snohomish, considering that presently the area is designated as "density fringe", which restricts the development. Chapter 30.65.250 of Snohomish County Code states: "the land area occupied by any use or development permitted by this chapter that will displace floodwaters shall not exceed two percent of the land area of that portion of the lot located in the density fringe area." Moreover, even if the Harvey Airfield property were considered developable today (which it is not due to the "density fringe" designation), the City of Snohomish Comprehensive Plan states that Harvey Field uses should be regulated to fit with airport purposes (Page 231):

    > "Airport Industry Designation. Harvey Airfield and the surrounding area should be protected as a regional resource. This designation will protect it from incompatible land uses, allow its orderly expansion, and provide for its further development as a regional reliever field as designated by the FAA. It is also intended to reduce the impact of airport uses on adjacent properties. The airport area designation will allow a mix of certain commercial and light industrial uses compatible with airport activities. It may allow for event related uses as well as trade/aviation schools with associated seasonal student dormitory housing. Development will be done under an approved site development plan."

    It should be noted that Harvey Airfield is defined pursuant to the Growth Management Act ("GMA") as an "essential public facility". On page LU-77, Snohomish County Comprehensive Plan states that "the GMA also identifies airports as essential public facilities and requires jurisdictions to adopt a process for siting such facilities" and "public use airports such as Arlington Municipal Airport and Harvey Field are transportation facilities key to the County's economic vitality." It is also appropriate to note that Harvey Airfield has been in operation since the early 1900's and that there is high ongoing demand for airfield use, including, but not limited to airfield/aircraft operations and storage. Therefore, given essential public facilities designation, airfield's economic value, and existing use demand, any potential redevelopment of the Harvey property to more intense commercial uses, even if the environmental and floodplain issues are resolved, could face additional regulatory challenges.

## Residential Buildable Lands Analysis

The residential analysis conducted to date has been divided into two parts: a single-family analysis that was based on the conceptual-level subdivision approach using City zoning and development regulations to develop an estimate of potential new building lots; and a multi-family analysis that was much less detailed and focused on the estimated buildable lands within the City's High Density Residential and Mixed Use zones. Both of these analyses will need to be discussed and reviewed in detail with City and County staff and, as such, are subject to revision in the future. Pending this review, the following are the preliminary findings from the residential analysis.

### Impact of Recent Development Activity

The County provided an updated land capacity estimate for the Snohomish UGA in the County's UGA Land Capacity Analysis Technical Report (Dec 21, 2005). The County estimated an additional 5,040 people could be accommodated in the UGA, for the timeframe March 2005 through the year 2025. ESM collected data on development history for the period April 1, 2005 through December 2006, to provide a land capacity estimate updating the County's 2005 estimate ESM estimates remaining capacity, after accounting for recent development history, to be 4,164.

**Exhibit 3**
**Snohomish UGA Development Activity, April 2005 – December 2006**

| Plat characteristics | | | | Household | Occupancy | Population |
|---|---|---|---|---|---|---|
| Name | Type | Status | # lots | size | rate | capacity |
| Kendal Plat | SF | | 38 | 2.90 | 0.96 | 106 |
| Plat of Rose Lane* | SF | Recorded | 19 | 2.90 | 0.96 | 53 |
| Misich II Plat* | SF | Recorded | 10 | 2.90 | 0.96 | 28 |
| Shadowood Estates | SF | | 82 | 2.90 | 0.96 | 228 |
| Ray Cook Plat | SF | | 5 | 2.90 | 0.96 | 14 |
| Doug's Addition* | SF | Recorded | 16 | 2.90 | 0.96 | 45 |
| Clark's Pond* | SF | Recorded | 34 | 2.90 | 0.96 | 95 |
| Denny's Addition | SF | | 9 | 2.90 | 0.96 | 25 |
| 1016 Maple Avenue | MF | | 5 | 2.00 | 0.90 | 9 |
| Riverview Highlands | SF | | 21 | 2.90 | 0.96 | 58 |
| 1106 Avenue D | MF | | 8 | 2.00 | 0.90 | 14 |
| Unknown | MF | | 8 | 2.00 | 0.90 | 14 |
| Unknown | SF | | 69 | 2.90 | 0.96 | 192 |
| | | | **324** | | | **881** |
| **Remaining capacity** | | **5045-881=** | **4,164** | | | |

Sources:

* Assessor GIS data

All other development activity data is derived from City of Snohomish development activity documents and maps.

**Impact of Updated Wetland Information/City Regulations**

- The 2002 Buildable Lands Report allows use of City critical areas data and evaluation using local regulations for classification and buffers. The report utilized that information for the Cities of Bothell and Everett, but updated information was not then available from other jurisdictions. As discussed above, the Steward ESA Study was not available at that time and was not incorporated into the County's 2002 Buildable Lands Report.

- Utilizing wetland data developed for the City of Snohomish since the 2002 BLR, estimates of overall developable area in the UGA are significantly decreased.

- Two key changes have combined to increase the total wetlands and buffers within the City's UGA by 132 acres:

    - Applying the results of the 2004 Steward ESA Study adds an additional 38 acres of wetlands that did not appear in the County's GIS database.

    - Applying the City of Snohomish Municipal Code with respect to wetlands buffers, which are more restrictive than those assumed in the previous County land capacity analyses further increases the amount of land that cannot be developed. The buffer changes increase the total undevelopable acreage by another 94 acres.

The buildable acres of wetlands deducted from the buildable residential land base were converted into 556 persons of additional population capacity. This calculation utilized the County's analysis and methodology from the 2002 Buildable Lands Report and 2005 Technical Land Capacity Analysis (Dec. 2005):

- The data from 2005 Technical Land Capacity Analysis was used to establish the density yield for each zone.

- Additional housing unit capacity was calculated by multiplying buildable acres by density yield and taking several reductions: (1) miscellaneous purpose reduction of 5%; and (2) market availability reduction of 15% for vacant parcels and 30% for redevelopable and partially used parcels.

- Additional population capacity was calculated by multiplying the additional housing unit capacity by household size: 2.9 for single family and 2.5 for medium density residential. A vacancy reduction of 4% was then taken, based on occupancy rate of 96% for single family.

- The reduced capacity of 556 potential residents is approximately 11% of the current estimated residential capacity in the City of Snohomish UGA.

**Exhibit 4**
**Estimated Lost Residential Capacity**

| | Additional Population Capacity | | | | |
|---|---|---|---|---|---|
| **Zoning** | **Partially Used** | **Pending** | **Redevelopable** | **Vacant** | **Grand Total** |
| Single Family | 313 | 0 | 2 | 186 | 501 |
| Medium Density Residential | 3 | 0 | 22 | 30 | 55 |
| **Grand Total** | **317** | **0** | **23** | **216** | **556** |

At the conceptual level, adding this population capacity deduction of 556 persons to the residual land capacity deduction of 881 reflecting recent development history, as shown in **Exhibit 3** above, a potential total deduction of 1,437 in population should be deducted from the total land capacity estimate of 5,040, estimated by the County in December 2005. Preliminary analysis therefore indicates an updated total capacity of 3,603, a number approaching the 50% mark of remaining residential capacity. Moreover, considering the following alternative residential analysis, the true capacity number may actually be lower, depending on the City's actual yields in its single family zones.

### Alternative Assessment of Potential Residential Yields

An alternative analysis of buildable single family zoned land was conducted utilizing standard subdivision planning, as a means of determining whether the City UGA's single family zones will actually yield the housing unit count estimated in the 2002 BLR. This alternative analysis studied all areas within the UGA zoned as low and medium density housing, applying the City's zoning classifications and development standards. *See, Letter from ESM Consulting Engineers LLC to Corbitt Loch, Planning Director, City of Snohomish, dated May 30, 2006*. Buildable lands were determined using the 2002 BLR County methodology for defining vacant, redevelopable and subdividable (partially used) properties. These buildable properties were then adjusted for critical areas and easements to arrive at a net buildable parcel (using the adjusted critical areas discussed above).

From this buildable parcel base, conceptual-level subdivisions were designed to determine the number of potential lots, based on the City's zoning and appropriate access and circulation conditions. Since annexation to the City is a likely precursor to substantial development in the City's UGA, the City's zoning code and development standards were used in this analysis (for more detailed methodology, see attached memo from ESM).

- The analysis suggests that there is a total of 1,291 acres in the single family zones. Of these, there is an estimated 431 acres that are within wetlands, wetland buffers and utility easements. Another 167 acres were determined to be institutional lands (parks, churches, schools, cemeteries, etc.) leaving a net area of 692 acres zoned for single-family development.

- The 1,281 new lots would yield a net of 1,042 new housing units since there are already some units in these areas which are classified as partially used or redevelopable.

- The net new housing units would translate to population capacity of approximately 1,711, after applying the City's rate of 2.49 persons per household and after accounting for various discounts as per the County's methodology for occupancy, market factors and public purpose needs.

- Utilizing all of this estimated single family capacity of 1,711 would require the City to meet the rest of its UGA residential land capacity through other residential zones. In other words, only 43% of the estimated remaining capacity within the City's UGA could be met through single-family development, under current single-family zoning and development standards.

Assuming, for the moment, the results of the single family analysis, it suggests that the balance of the population target (2,789 people) would then need to be accommodated within the City's high density and mixed use zones. To test the reasonableness of this possibility, a threshold multifamily

analysis was undertaken, which assumed that the maximum housing density could be achieved on the buildable lands in these zones. As a result, the mixed use zones would be primarily residential.

- There is an estimated 4.8 acres of buildable land in the high density zone (3 acres of redevelopable and 1.8 acres vacant) on a total of 19 building sites.
- There is an estimated 23.5 acres of buildable lands in the mixed use zone, 22.5 of which are classified as redevelopable.
- Assuming the maximum density allowed under the zoning would yield 113 prospective total units in the high density zone and 423 units in the mixed use zone.
- Adding three units that are currently pending in these zones yields a maximum housing unit count of 539 multifamily units. Assuming 2 persons per dwelling unit would result in a net population capacity of 1,078.
- Applying County reduction factors (market reduction of 30%, vacancy factor of 8% and public purpose factor of 5%) reduces the effective capacity of these properties to 614 new residents.
- This population capacity likely overstates the actual capacity since it does not exclude existing units from the redevelopment land, it assumes all development will be at maximum density and it assumes that all mixed use properties would develop as residential.

The threshold multifamily analysis suggests that it is unlikely that the high density and mixed use zones will be able to accommodate the remaining City capacity. Further, if the subdivision analysis and maximum multifamily analysis are reasonably accurate in measuring the practical development capacity on the buildable lands, it suggests that the overall capacity estimated in 2005 may be too high (by as much as 2,000 people) given the characteristics of the lands in question.

## Conclusion

As analysis above indicates, there are a number of important findings to date. The preliminary findings suggest:

(1) There appears to be a shortage of large developable commercial and industrial sites necessary to support the City's need for commercial activity (Harvey Field should not be counted as it is undevelopable due to the "density fringe" designation);

(2) There are no vacant commercial parcels over twenty (20) acres in size;

(3) The commercial land base within the City's UGA is both highly fractured in size and ownership and therefore may be difficult to assemble into larger economic units which could lead to redevelopment within appropriate planning periods; in addition, the majority of the commercial land base is under current land uses and zoning regulations which may not support redevelopment in a manner that adds additional capacity;

(4) There is new information regarding sensitive areas within the City's UGA which has not been taken into consideration in prior buildable lands analysis, which may result in significant reductions in the City's developable lands inventory; and

(5) When new information regarding the impact of additional sensitive areas on the City's land base, recent development activity, and updated regulations are taken into consideration, the City of Snohomish is approaching the Countywide Planning Policy threshold for expanding its UGA as a result of growth consuming at least 50% of the available *residential* land capacity.

Based on the findings above, there appears to be enough evidence to support, **at a minimum**, further discussion and analysis with the City and County on the question of whether there is adequate land capacity to meet the City's long term commercial and residential needs.

# ATTACHMENT A

## Memorandum from ESM Consulting Engineers, LLC:

## Updated Residential Lands Capacity Analysis

## March 29, 2007

March 29, 2007 Job No. 1155-002-006

Mr. Michael Hodgins
Berk & Associates
120 Lakeside Avenue, Suite 200
Seattle WA 98122

**RE: Updated Residential Lands Capacity Analysis**
**Utilizing Methods Approved in SCT 2002 Buildable Lands Report**

My calculations of updated population capacity remaining within the Snohomish Urban Growth Area are based on the following factors and sources of information:

A. Brief Outline of Method

The County provided an updated land capacity estimate for the Snohomish UGA in the County's *UGA Land Capacity Analysis Technical Report* (Dec. 21, 2005). The County estimated an additional 5,040 people could be accommodated in the UGA, for the timeframe March 2005 through the year 2025.[1]

ESM Consulting Engineers, LLC. (ESM) collected data on development history for the period April 1, 2005 through December 2006, to provide a land capacity estimate updating the County's 2005 estimate. ESM estimates remaining capacity, after accounting for recent development history, to be 4,164. See attached spreadsheet.

ESM then also conducted a qualitative evaluation of factors that might significantly affect estimated capacity and would be worthy of more in-depth study to help validate or improve the accuracy of the 4,164 estimated land capacity. More recent wetland and stream mapping by Steward and Associates was evaluated to determine the extent to which County critical areas estimates may have been underestimated in the Snohomish UGA. ESM estimates this new information significantly increases the acreage of wetlands and buffers within the UGA. When City regulations for buffers are applied to these updated designations and classifications for wetlands, the total number of acres removed from the land base within the UGA is estimated to be 132 acres.

[1]The County's land capacity update for the 10-Year Comprehensive Plan Update in December 2005 utilized updated development information up through March 2005. This report bridges the gap from April 2005 through December 2006 with updated development history.

B. Use of 2002 Buildable Lands Report Data and Methodology

This updated residential land capacity analysis utilizes:

- Baseline land capacity estimates from Snohomish County's 2002 Buildable Lands Report, as updated by:
  - Snohomish County's 2005 Comprehensive Plan 10-Year Update; and
  - 2005 Growth Monitoring Report.
- Critical areas GIS data provided by Snohomish County[2].
- Detailed wetland and stream mapping by Steward and Associates.
- City of Snohomish Endangered Species Act Response Planning (May 2004).
- Definitions of development history, critical area buffers, and other terms from the 2002 Buildable Lands Report.

C. Mapping Sources

Critical areas mapping within the Snohomish UGA for this project utilized the following sources:

1. WETLANDS

Wetlands were mapped utilizing a merger of the following sources:

- Snohomish County GIS wetlands database (provided by City of Snohomish on a data CD).
- Nationwide Wetland Inventory (downloaded from NWI website).
- *City of Snohomish ESA Response Planning*, Steward and Associates (May 2004) ("Snohomish ESA Study").

The Snohomish ESA Study was used to classify wetlands and then compare County buffers (average wetlands buffer widths of 50') with those conforming to the City of Snohomish Municipal Code (Title 14)

2. STREAMS

Streams were mapped utilizing a merger of the following sources:

- Snohomish County's GIS stream database (provided by City of Snohomish on a data CD).
- *City of Snohomish ESA Response Planning*, Steward and Associates (May 2004).

[2] The County provided the City of Snohomish a cd containing the County's GIS data for streams, wetlands and steep slopes. ESM obtained a copy of that information from the City of Snohomish.

The ESA Study was used to classify streams and then compare County stream buffers to buffers conforming to City of Snohomish Municipal Code (Title 14).

3. SLOPES

A digital elevation model was created using City of Snohomish elevation data (provided by City of Snohomish on a data CD). For 33% or greater slopes, a 25' buffer was applied at top and toe of slope, consistent with the 2002 Buildable Land Report methodology.

D. Summary of Findings

Utilizing methods described in the 2002 Buildable Lands Report, ESM updated Snohomish County's December 2005 land capacity estimates for the Snohomish UGA (2005-2025), with development history data through December 2006. ESM then examined the inventory of wetlands and streams in a 2004 City study as a possible update to the 2002 Buildable Lands Report. Using the new designations and classifications in this study, ESM applied City buffers under Snohomish Municipal Code (Title 14). The following conclusions were reached in this updated analysis:

1. Generally, across all land use categories, there are 31 acres of wetlands (66 acres of wetlands buffers) designated under the Snohomish ESA Study that do not appear on the County's GIS database.
2. When the wetland buffers specified in the City of Snohomish Municipal Code (Title 14) are applied to the merged wetlands data (NWI, Snohomish County wetlands and City of Snohomish wetlands), an additional 132 acres of wetlands and wetlands buffers should be removed from the land base.
3. This new information was not available at the time of the 2002 Buildable Lands Report and apparently was not re-analyzed during the 10-Year Update, as reflected in the County's GIS database. The 2002 Buildable Lands Report cites two cities (Bothell and Everett) that had wetland and stream data considered as part of the 2002 Buildable Lands Report analysis. Use of the Snohomish ESA Study is consistent with those methods.

If you have any questions please call me at 425-415-6144.

Sincerely,

ESM CONSULTING ENGINEERS, LLC.

Dan Dulan

DAN DULAN
Sr GIS Analyst

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